

JPL/EMD/F-33 (3)/4x600MW/2020/ 380

The Regional Director (S),  
Ministry of Environment and Forests,  
Regional office (WCZ)  
Ground Floor, East Wing  
New Secretariat Building  
Civil Line, Nagpur - 440001 (Maharashtra)

Sub.: -Submission of Half Yearly Environmental Clearance Compliance Reports for expansion of 4x250 MW TPP by addition of 2x600MW (Units-1&2) and 2x600MW (Units-3&4) Coal based TPP of M/s Jindal Power Limited, Tamnar, Distt.- Raigarh (C.G.) for the period of April, 2020 to September, 2020.

- Ref.: -1. Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 18/03/2011.  
2. Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 04/11/2011.  
3. MoEF Office Memorandum No. J-11013/41/2006-IA.II (I) dated 06/04/2011.  
4. Amendment in Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 10/01/2014.  
5. Amendment in Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 26/04/2017.  
6. Amendment in Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 28/08/2020.

Dear Sir,

This has reference to the above cited subject. Enclosed please find herewith Half Yearly Environmental Clearance Compliance Reports along with compliance of additional conditions for expansion of 4x250 MW TPP by addition of 2x600MW (Units-1&2) and 2x600MW (Units-3&4) Coal based TPP of M/s Jindal Power Limited, Tamnar, Distt.- Raigarh (C.G.) for the period of **April, 2020 to September, 2020** in soft copy (through e-mail).

Trust that you will find the above information in order.

Thanking you,

Yours faithfully,  
For JINDAL POWER LIMITED

  
Shiv Kumar Singh  
General Manager -EMD

Encl. : As above.

Cc:

|                                                                                                                                         |                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| The Member Secretary,<br>Central Pollution Control Board, Parivesh Bhawan, CBD-cum-<br>Office Complex, East Arjun Nagar, Delhi-110 032. | The Zonal Officer, Central Pollution Control Board,<br>3 <sup>rd</sup> Floor, Sahkar Bhawan, North T.T.Nagar, Bhopal-462 003 (M.P)              |
| The Director,<br>Ministry of Environment, Forest and Climate Change<br>Indira Paryavaran Bhavan<br>Jorbagh Road, New Delhi - 110 003    | The Member Secretary,<br>Chhattisgarh Environment Conservation Board,<br>Paryavas Bhavan, North Block Sec.19<br>Atal Nagar, Raipur (CG) -490099 |

**Jindal Power Limited**

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Registered Office Tamnar - 496 107, District Raigarh, Chhattisgarh

**JINDAL POWER LIMITED, TAMNAR**

**Compliance Report of Environmental Clearance and additional conditions for Expansion of 4x250MW by addition of 2x600 MW (Units-1 & 2) Coal Based Thermal Power Plant, Tamnar vide letters No.J.13012/117/2008-IA.II (T) & J.11013/41/2006-IA.II (I) dated 18/03/2011 & 06/04/2011, amendment vide letter No.J.13012/117/2008-IA.II (T) dated 10/01/2014 , 27.03.2015 ,26.04.2017and 28.8.2020**

| A      | Specific Conditions                                                                                                                                                                                                                                                                                                                                                        | Compliance Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (i)    | Environmental clearance shall be applicable for 2x600 MW. However at a later stage when firm coal linkage for third and fourth unit of 600 MW are also available, the project proponent may request the Ministry for inclusion of these units of 600 MW each, for which the Ministry shall consider appropriately.                                                         | Ministry has granted Environmental Clearance for 2x600 MW (Units-3&4) vide Letter No.J-13012/117/2008-IA.II (T) dated 04/11/2011.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| (ii)   | <b>(As amended vide MoEF letter No. J-13012/117/2008-IA. II (T) dt. 4/11/2011)</b> Prior permission/clearance from the Ministry of Coal shall be obtained before undertaking construction activity for the expansion project.                                                                                                                                              | Permission has been obtained from Ministry of Coal vide letter dated 01/11/2011.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| (iii)  | Vision document specifying prospective plan for the site shall be formulated and submitted to the Ministry within six months.                                                                                                                                                                                                                                              | Vision document has been submitted to the Ministry & its Regional Office-Bhopal vide letter No. JPL/EMD/2x600MW/2011/194 dated 10/09/2011.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| (iv)   | Provision for installation of FGD shall be provided for future use.                                                                                                                                                                                                                                                                                                        | Space provision has been provided for installation of FGD in future use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| (v)    | High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> . 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. | The ESP's are designed to achieve particulate emission below 50 mg/Nm <sup>3</sup> . Adequate dust extraction system and dust suppression system in coal handling and ash handling points, transfer areas and other vulnerable dusty areas have been provided.                                                                                                                                                                                                                                                                                                       |
| (vi)   | Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5 % and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made to MoEF for suitable amendments to environmental clearance condition wherever                                                                       | Noted.<br>The condition of 34% of ash contents is not applicable for JPL, tamnar as per MOEFCC notification S.O. 1561 (E) dated 21.05.2020.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| (vii)  | Stack of 275 m height shall be installed and provided with continuous online monitoring equipments for SO <sub>x</sub> , NO <sub>x</sub> and Particulate Matter. Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also monitored on periodic basis.                                                                           | Twin flue stacks of 275 meters height with continuous online monitoring instrument for SO <sub>x</sub> , NO <sub>x</sub> and Particulate Matter have been provided at Unit-1 , Unit-2 & Unit-3 & Unit-4. COD for Unit-1 is on 14.03.2014, COD for Unit-2 is on 31.03.2014, COD for Unit-3 is on 15.01.2015 & COD for Unit-4 is on 12.12.2016 and flue gas exit velocity of 22 m/sec is being maintained and report for the period of April, 2020 to September, 2020 is enclosed as <b>Annexure-I</b> . Mercury emissions from stack is being monitored periodically. |
| (viii) | Existing de-generated water bodies (if any) in the study area shall be regenerated at the project proponent's expenses in consultation with the state Govt.                                                                                                                                                                                                                | Revival/regeneration of 55 nos. of water bodies by de-silting /deepening in the study area has already been done under CSR activities in consultation with District administration.                                                                                                                                                                                                                                                                                                                                                                                  |

**JINDAL POWER LIMITED, TAMNAR**

|        | <b>Specific Conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Compliance Status</b>                                                                                                                                                                                                                                                                                                        |
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| (ix)   | Detailed hydro-geological study shall be conducted (including sustainability of water source study) shall be carried out by an institute of repute and report submitted to the Regional Office (RO) of the ministry. Further hydro-geological study shall be reviewed annually from an institute/ organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case and deterioration is observed specific mitigation measures shall be undertaken and reports/ data of water quality monitored regularly and maintained shall be submitted to the RO of the Ministry. | National Institute of Hydrology (NIH),Roorkee has carried out detailed Hydro-geological study .The report was submitted to MoEF & its Regional Office vide letter No. JPL/EMD/4x600MW/2011/228 dated 14/12/2011.                                                                                                                |
| (x)    | Source of water for meeting the requirement during lean season shall be specified and submitted to the Regional Office of the Ministry within three months.                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Source of water for meeting the requirement during lean season was already specified and submitted to the Regional Office of the Ministry vide letter No. JPL/EMD/2x600MW/JULY-11/15 dated 04/07/2011.                                                                                                                          |
| (xi)   | No ground water shall be extracted for use in operation of the power plant even in lean season.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | No ground water was extracted for use in power plant operation.                                                                                                                                                                                                                                                                 |
| (xii)  | No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.                                                                                                                                                                                                                                                                                                                                                                                                                                                   | There are no water bodies within the project site.                                                                                                                                                                                                                                                                              |
| (xiii) | Minimum required environmental flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel/ Rivers (as applicable) even in lean season.                                                                                                                                                                                                                                                                                                                                                                                                                                           | Will be complied, whenever stipulated.                                                                                                                                                                                                                                                                                          |
| (xiv)  | COC of 5.0 shall be adopted. The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed. A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.                                                                                                                                                                        | Cooling water system with COC of 5.0 is being adopted. Separate storm water drains are provided, hence there is no chance of mixing of effluents with storm water . The project has been designed with zero discharge concept. As stipulated, treated sewage is being used completely for raising greenbelt/plantation purpose. |
| (xv)   | Additional soil for levelling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.                                                                                                                                                                                                                                                                                                                                                                                                                                | Topography of the site is more or less flat. Therefore leveling works are not required.                                                                                                                                                                                                                                         |
| (xvi)  | Utilisation of 100% Fly Ash generated shall be made from 4 <sup>th</sup> year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.                                                                                                                                                                                                                                                                                                                                                                                                                      | Noted, Implementation status report is being submitted time to time.                                                                                                                                                                                                                                                            |

**JINDAL POWER LIMITED, TAMNAR**

|         | <b>Specific Conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Compliance Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| (xvii)  | Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 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.                                                                                                | We have incorporated total ash utilization as integral part of the project. We have installed dry fly ash extraction system with 4 nos of silos of adequate capacity 2300 Tonnes each so that ash generated during the power generation is collected in dry form. Unutilized fly ash is being disposed off in the ash dyke in the form of slurry. Mercury & other heavy metals (As, Hg, Cr, Pb etc.) is being monitored in the bottom ash and in the effluents emanating from the existing ash pond.                                                         |
| (xviii) | Ash pond shall be lined with HDP/LDPE 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.                                                                                                                                                                                                                                    | Noted, HDP/LDPE lining will be carried out in the proposed Ash dyke.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| (xix)   | Disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) shall be carried out only after obtaining permission from DGMS and 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.                                                                             | Noted, Permission from DGMS will be obtained for disposal of Bottom Ash in abundant mines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| (xx)    | 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 adequate Green Belt shall be raised and detail justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less than 85 %.                                                                                                                                | Action plan for green belt development and details regarding the feasibility of green belt development was submitted to Ministry & its Regional office vide letter Nos.JPL/EMD/2x600MW/JULY-11/156 & No.JPL/EMD/4x600MW/2012/359 dated 04/07/2011 & 01/12/2012. Wide Green belt consisting of three tiers of plantation of broad leaf local species of 100 meter width all along the periphery of the plant is being developed/strengthened on continuous basis. Plantation details for the year 2020-21(till Sep-2020) is enclosed as <b>Annexure -II</b> . |
| (xxi)   | The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for providing fluoride free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.                                                                                                                                                                                     | JPL under its CSR activities has undertaken several community development programmes for fulfillment of the basic needs of the neighboring villagers. Further as per Govt. PHE department survey, all the neighboring villages of project area are free from fluoride contaminated water, hence there is no need to supply fluoride free potable drinking water in the villages and schools.                                                                                                                                                                 |
| (xxii)  | Further an amount of atleast 0.4% of the cost of the project (for 2x600 MW) shall be earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure 1/5 <sup>th</sup> of the above per annum shall be earmarked till the operation of plant as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within six month along with road map for implementation. | The CSR activities progress report for the financial year, 2020-21 (April,2020 to September, 2020) is enclosed as <b>Annexure-III</b> .                                                                                                                                                                                                                                                                                                                                                                                                                      |

**JINDAL POWER LIMITED, TAMNAR**

|         | <b>Specific Conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Compliance Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| (xxiii) | While identifying CSR activities it shall be ensured that need based assessment for the nearby villages within study area shall be conducted 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 shall be undertaken. 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. Vocational training programme for possible self employment and jobs shall be imparted to identified villagers                                                                                                                                                                                                                                                                                                                                                | The CSR plan for the year 2020-21 has been prepared and subsequently the work plans have been rolled out in the field. The activities are being implemented under the following thematic heads:<br>1. Health , Sanitation & Drinking water<br>2. Community Education<br>3. Rural Infrastructure Development<br>4. Livelihood (Entrepreneurship Development Program)<br>5. Natural Resource Management- Environment<br>6. Agriculture Development<br>7. Sports, Art and Culture<br>The detail of the need based activities in nearby villages for the period of FY-2020-21 (April, 2020 to March- 2021) is enclosed as <b>Annexure IV</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| (xxiv)  | It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | To ensure the schemes operating well, the organization has its own in-built monitoring cell. The Impact study through Community Satisfaction Index is being carried out by NABCONS (NABARD Consultation Pvt. Ltd.). The final report has been received. The Compilation certificate of the study is enclosed as <b>Annexure-VII</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| (xxv)   | For the tribal families affected directly or indirectly (if any) by the proposed project, specific schemes for up-liftment of their sustainable livelihood shall be prepared with time bound implementation and in-built monitoring programme. The status of implementation shall be submitted to the Regional Office of the Ministry from time to time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Schemes for the tribal families are being implemented. The status of activities is enclosed as <b>Annexure-V</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| (xxvi)  | Information on all new activities like proposed settling up of a Coal Handling Plant, a Coal Gasification Plant, Coal stock yard etc. including the proposed pipe coal conveyer from Prasada to M/s JPL, at Tamnar shall be brought to the notice of the people both through EIA/EMP studies and at the time of the Public hearing for the proposed Steel Plant of M/s JSPL in an explicit, comprehensive and understandable fashion. However as an interim arrangement as the above may take some time, the coal handling plant may be setup at the thermal power site for crushing coal obtained from SECL and MCL mines located between 20-50 Kms distances. The coal crusher at the plant site is permitted as an interim measure and would be dismantled after the lapse of interim period of three years. The transportation of coal from these mines by road may be undertaken for a limited period of three years from the date of issue of this letter, by which time the pipe conveyer shall be put in place for coal transportation". | JPL has applied to MOEF vide letter No. JPL/Tamnar/2012, dated 31.08.2012 for permitting the installation of coal crusher with in the plant and transportation of coal by road, till permanent system of coal handling and coal transportation through Closed Pipe Conveyer (CCPC), as envisaged in environment clearance, is in place. MoEF has amended EC wrt coal transportation by road, installation of coal crusher within plant site on 10th January 2014 for three years i.e up to 9th January 2017.<br>JPL has obtained amendment in EC from MoEF&CC on 26.04.2017 for coal transportation by road & coal crushing facility within plant site for 30 months, permission to use existing water reservoir is permitted and ash dyke of operating 1000 MW power plant for two more years.<br>JPL has obtained amendment in EC from MoEF&CC on 28.08.2020 for coal transportation by road till 20.05.2020, and from 21.5.2020 onward is governed by Ministry's Gazette Notification vide S.o. 1561 ( E) dated 21st May, 2020. MOEF&CC has also permitted for coal crusher facility within plant permises. |

**JINDAL POWER LIMITED, TAMNAR**

|         | <b>Specific Conditions</b>                                                                                                                                                                                                                                                                                                                                                        | <b>Compliance Status</b>                                                                                                                                                                                                                                             |
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| (xxvii) | Power generated from Unit-1&2 (2x600 MW) domestic coal linkage, shall be sold / supplied on tariff based bidding or through competitive bidding route on long term Power Purchase Agreement with State distribution companies (DISCOMS).                                                                                                                                          | Noted, Power is being supplied from unit-1 & 2 of 600 mw through long term PPA to KSEB, TNEB, CSEB.                                                                                                                                                                  |
| xxviii) | Avenue plantation along the route (both sides of the road) of coal transportation from SECL and MCL mines over distances varying from 20 to 50 kms shall be raised by the project proponent at its own cost. The status of implementation shall be submitted to the Regional Office of the Ministry.                                                                              | Avenue plantation along the route (both sides of the road) of coal transportation from SECL and MCL mines is being done on continuous basis.                                                                                                                         |
| xxix)   | It shall be ensured that only mechanized covered trucks are used for coal transportation                                                                                                                                                                                                                                                                                          | Noted for compliance.                                                                                                                                                                                                                                                |
| xxx)    | A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.                                                                               | The study on radioactivity is analyzed by BARC for determination of Radioactivity in Coal and fly ash. Study of heavy metals contents in coal and fly ash from a reputed institute/organization is carried out regularly. Study report is already submitted to MoEF. |
| xxxi)   | Recommendation made by CEA in its report for setting up of crusher and dumper hopper as given under shall be strictly implemented:<br>• The dust extraction / collection and suppression facilities to be installed at the coal crushing site.                                                                                                                                    | Water sprinkling systems have been installed at crushers area, transfer points etc to control fugitive dust emissions. Dust extraction system equipped with O2 bag filters have already been installed.                                                              |
| xxxii)  | The existing water reservoir and water allocation for the existing 1000 MW plant shall be utilized for an interim period not exceeding three years by which time the system shall be put in place for self sustenance of the expansion units.                                                                                                                                     | JPL has obtained amendment in EC from MoEF&CC on 26.04.2017 for use existing water reservoir of 1000 MW power plant.                                                                                                                                                 |
| xxxiii) | The existing ash dyke shall be utilized for the expansion for an interim period not exceeding three years subject to ash dyke having necessary capacity to handle additional ash on account of the expansion units. A new ash dyke shall be constructed within three years to meet the requirement of substantial quantity of ash that would be generated by the expansion plant. | JPL has obtained amendment in EC from MoEF&CC on 28.08.2020 for using the existing ash dyke of 4x250 MW for disposal of unutilised ash of 4x600 MW till October, 2021.                                                                                               |

**JINDAL POWER LIMITED, TAMNAR**

|          | <b>Specific Conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Compliance Status</b>                                                                                                                                                                                                                                                                                                                                     |
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| (xxxiv)  | The coal transportation by road shall be through mechanically covered trucks only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Noted for compliance                                                                                                                                                                                                                                                                                                                                         |
| (xxxv)   | Avenue plantation of 2/3 rows all along the coal transportation route (both side of the road shall be carried out by the project proponent at its own expenses and in consultation with the state Government Authorities. The status of the implementation shall be submitted to the Regional Office of the Ministry.                                                                                                                                                                                                                                                                           | Avenue plantation along the route (both sides of the road) of coal transportation from SECL and MCL mines is being done on continuous basis.                                                                                                                                                                                                                 |
| (xxxvi)  | Periodic maintenance of the road for coal transportation shall be done by the project proponent at its own expenses and shall also facilitate the traffic control on the road in consultation with the state Government Authorities.                                                                                                                                                                                                                                                                                                                                                            | Complied with                                                                                                                                                                                                                                                                                                                                                |
| (xxxvii) | Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry.                                                                                                                                                                                                                                                                                                                                                                            | 25 KW roof top solar systems has been installed for solar power generation & 50 nos solar street lights has been installed at residential colony. A solar steam cooking system has been installed for preparation of 500 meals per day. The details of solar system power generation from April, 2020 to September, 2020 is enclosed as <b>Annexure-VIII</b> |
| (xxv)    | Fugitive emission shall be controlled to prevent impact on agricultural or non-agricultural land.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | All the steps are being taken to avoid the fugitive dust generation and its suppression                                                                                                                                                                                                                                                                      |
| xxvi)    | Fly ash shall not be used for agriculture purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board. | IIT-Kharagpur has been engaged for monitoring of long-term impacts of dumping of fly ash and leaching of heavy metals on soil and water of study area. There is no sign of increasing level of heavy metals in the soil/ground water.                                                                                                                        |
| xxvii)   | Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Noted, Green belt will be developed around the proposed new Ash dyke.                                                                                                                                                                                                                                                                                        |
| xxxviii) | The project proponent shall formulate a well laid corporate environment policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the condition stipulated in this clearance letter and other applicable environment laws and regulations.                                                                                                                                                                                                                                                                 | Complied. Policy is already in place and is being complied with.                                                                                                                                                                                                                                                                                             |

**JINDAL POWER LIMITED, TAMNAR**

| <b>B</b> | <b>General Conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Compliance Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| (i)      | A well designed rainwater harvesting shall be put in place before commissioning of the plant. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology/design within a period of three months from the date of this clearance and details shall be furnished.                                                                                                                                                              | A detailed scheme for rainwater harvesting to recharge the ground water aquifer has been prepared in consultation with Central Ground Water Board-New Delhi & Central Ground Water Board-Raipur by engaging National Institute of Hydrology, Roorkee and copy of the same has already been submitted to the Ministry of Environment and Forests, Government of India, Head Office and Regional Office, Bhopal, Chhattisgarh Environment Conservation Board vide Letter No. JPL/EMD/4x600MW/2011/228 dated 26/12/2011. The scheme has been approved by Central Ground Water Board, Raipur vide Letter No. 30-11/Compliance/CGWA/NCCR/TS/075 dated 28/10/2013. The drawing of RWH system has been finalized and the same implementation. A rain water harvesting pond capacity of 35,000 m <sup>3</sup> has been made for rainwater harvesting and to recharge the ground water table. |
| (ii)     | 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.                                                                                                                                                                           | Drawing & documents has been finalized and the same was submitted to the Ministry as well as to the Regional Office of the Ministry vide letter No.JPL/EMD/4x600MW/2013/497 dated 24.10.2013. As per scheme, adequate safety measures like hydrant points and water monitor points,etc are installed in and around the coal yard and project area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| (iii)    | 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.                                                                                                                                      | Petroleum & Explosives Safety Organisation (PESO), Nagpur has granted license for storage of 1200 KL LDO within the plant area vide letter dated 29/10/2012. Disaster Management Plan, risk assessment & emergency response plan has already incorporated in the Final EIA report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| (iv)     | 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. | A network of existing wells is being established and piezometers are constructed for ground water level and quality monitoring. Piezometers will be installed around the ash dyke for monitoring the ground water as stipulated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| (v)      | Monitoring surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.                                                                                                     | Complied.<br>The monitoring data are attached as <b>Annexure-VI (a) &amp; VI (b)</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| (vi)     | First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.                                                                                                                                                                                                                                                                                                                                                                 | Complied.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



**JINDAL POWER LIMITED, TAMNAR**

|        | <b>General Conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Compliance Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (vii)  | 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.                                                                                                          | Noise level is being maintained within the prescribed limit. Earplugs & Earmuffs have been provided to the employees working in the high noise areas.                                                                                                                                                                                                                                                                                                    |
| (viii) | Regular monitoring of ambient air ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>2.5</sub> & PM <sub>10</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. | The location of the Ambient Air Quality Monitoring (AAQM) Stations and frequency of monitoring has already been decided in consultation with CECB-Raipur. SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>2.5</sub> & PM <sub>10</sub> in Ambient Air are being monitored in and around the power plant and records are being maintained. The reports for the period from April, 2020 to September, 2020 are enclosed as <b>Annexure- VII(a) to VII(f)</b> . |
| (ix)   | Provision shall be made for the housing of construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.                                                                                                                                                                                                                                    | Complied.                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| (x)    | 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> .                               | Information regarding grant of Environmental Clearance has already been advertised in two local newspapers (Kelo Pravah in vernacular language and Nav Bharat in English) on 23/03/2011 & 24/03/11 respectively. The copies of advertisements were already submitted to Regional Office of Ministry vide letter No.JPL/EMD/2X600MW/MAY-11/137 dated 24/05/2011.                                                                                          |
| (xi)   | 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.                                                                                                                                                                                                                                                    | A copy of the clearance letter has already been sent to concerned District panchayats and NGO vide letter dated 07/04/2011. The clearance letter has already been uploaded on website of JPL.                                                                                                                                                                                                                                                            |

**JINDAL POWER LIMITED, TAMNAR**

|        | General Conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Compliance Status                                                                                                                                                                                                                                                                                                                                  |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (xii)  | An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the head of the organization.                                                                                                                                                                                                                                                                                                                                                                                                              | Well equipped Environmental Cell at JPL, headed by Senior Executive directly reporting to the head of the project is already in place.                                                                                                                                                                                                             |
| (xiii) | The proponent shall upload the status of compliance of the stipulated environmental clearance 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>2.5</sub> & PM <sub>10</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.                                                               | Compliance of the stipulated environmental clearance conditions is being regularly uploaded on website of JPL. Compliance report is being submitted to the Regional Office of MoEF, Zonal Office of CPCB, Bhopal and the CECB, Raipur.                                                                                                             |
| (xiv)  | 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 environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.                                                                                                                                                            | The environmental statement for the financial year 2019-20 has been submitted to State Pollution Control Board (CECB, Raipur) on 09th September 2020. Status of compliance of environmental clearance conditions is being regularly uploaded on website of JPL.                                                                                    |
| (xv)   | 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.                                                                                                      | Compliance report is being submitted to the Regional Office of MoEF, Zonal Office of CPCB, Bhopal and CECB, Raipur. The same was sent by e-mail to the Regional Office of MoEF. Status of compliance of environmental clearance condition is being regularly uploaded on website of JPL.                                                           |
| (xvi)  | 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 NO <sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant. | A complete set of documents including EIA Report and EMP along with the additional information to the Regional Office will be provided for use Regional office of MoEF, during monitoring. Compliance status is being regularly uploaded on website of JPL. The data including NO <sub>x</sub> is being displayed at the main gate of power plant. |

**JINDAL POWER LIMITED, TAMNAR**

|         | <b>General Conditions</b>                                                                                                                                                                                                                                                                                                                                                                                     | <b>Compliance Status</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (xvii)  | 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.                                                         | Separate fund has been allocated for implementation of environmental protection measures and cost is included as part of the project cost. The fund earmarked for the environment protection measures with item-wise break-up was submitted to Regional Office of Ministry vide letter No.JPL/EMD/2X600MW/MAY-11/137 dated 24/05/2011. The fund earmarked for the environment protection measures will not be diverted for other purposes. |
| (xviii) | 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.                                                                                                                                           | Grant of Permission to establish by CECB, Raipur and date of start of development work has already been informed to Regional Office as well as the Ministry vide letter No.JPL/EMD/4x600MW/2011/231 dated 27/12/2011. The COD (commercial operation declaration) of Unit-1, 2, 3 & 4 are 14.03.2014, 31.03.2014, 15.01.2015 & 12.12.2016 respectively.                                                                                     |
| (xix)   | 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.                                                                                                                                                                                                   | Noted.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 7       | 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.                                                                                                                              | Noted.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 8       | The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.                                                                                                                                                                                                                                                                                           | Noted.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 9       | 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.                                                                                                                                                     | Noted.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10      | 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.                                                                        | Noted.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 11      | 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, Handling and Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments. | Noted.                                                                                                                                                                                                                                                                                                                                                                                                                                     |

**JINDAL POWER LIMITED, TAMNAR**

|      | <b>Additional Conditions</b>                                                                                                                                                                                                                                                                                                                                                                         | <b>Compliance Status</b>                                                                                                                                                                                                                                                                                   |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i    | Use of existing ash dyke is permitted for two more years.                                                                                                                                                                                                                                                                                                                                            | JPL has obtained amendment in EC from MoEF&CC on 28.08.2020 for using the existing ash dyke of 4x250 MW for disposal of unutilised ash of 4x600 MW till October, 2021.                                                                                                                                     |
| ii   | Transport coal by road and installation of crushing facility located within the plant premises for thirty months for all the units.                                                                                                                                                                                                                                                                  | JPL has obtained amendment in EC from MoEF&CC on 28.08.2020 for coal transportation by road till 20.05.2020 and from 21.5.2020 onward is governed by Ministry's Gazette Notification vide S.o. 1561 ( E) dated 21st May, 2020. MOEFCC has also permitted for coal crusher facility within plant permesses. |
| iii  | Use of existing water reservoir for expansion of 4X250 MW TPS is permitted.                                                                                                                                                                                                                                                                                                                          | Noted.                                                                                                                                                                                                                                                                                                     |
| iv   | Change in coal source from imported to domestic coal for Units 3 & 4 is allowed. Coal source from Kulda OCP-MCL (Road: 42 km, CCPC: 7 km), Gare Pelma-IV/ 1, IV/ -2 & IV/ -3-SECL (CCPC: 7 km), Baroud Mines-SECL (Road: 40 km) and Chhal Mine-SECL (Road: 49 km) mines is permitted. Total quantity of coal to be transported through road/CCPC shall not exceed 4.81 MTPA for Unit-3&4 (2x600 MW). | Noted.                                                                                                                                                                                                                                                                                                     |
| v    | Details of coal characteristics, source & location of coal mine, traffic study shall be submitted to the Ministry after getting allocation of coal through forward e-auction or any other scheme notified by M/s Coal India Limited.                                                                                                                                                                 | Coal is being sourced from the above mentioned mines in condition (iv) . However, the Company will submit details as & when source of coal is changed.                                                                                                                                                     |
| vi   | Coal transportation shall be preferably by rail or pipe/belt conveyer after thirty months only.                                                                                                                                                                                                                                                                                                      | JPL has obtained amendment in EC from MoEF&CC on 28.08.2020 for coal transportation by road till 20.05.2020 and from 21.5.2020 onward is governed by Ministry's Gazette Notification vide S.o. 1561 ( E) dated 21st May, 2020.                                                                             |
| vii  | Any variance in coal characteristics/source/mode of transport, it shall be brought along with environment and traffic impact assessment study to the Ministry for assessing the adequacy of the conditions already stipulated or to incorporate any additional condition as may be necessary in the interest of environment protection.                                                              | Noted.                                                                                                                                                                                                                                                                                                     |
| viii | Change in location of ash dyke from Rodapalli to near Dolesara village is allowed.                                                                                                                                                                                                                                                                                                                   | Noted.                                                                                                                                                                                                                                                                                                     |
| ix   | Plantation along CCPC shall be carried out. Fruit bearing, neem and local indigenous species shall be planted.                                                                                                                                                                                                                                                                                       | Noted.                                                                                                                                                                                                                                                                                                     |
| x    | MoEFCC Notification S.O, 3305(E) dated 7.12.2015 shall be implemented with respect to specific water consumption, zero liquid discharge and revised emission standards, as applicable.                                                                                                                                                                                                               | Noted.                                                                                                                                                                                                                                                                                                     |
| xi   | MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 regarding use of raw or blended or beneficiated or washed coal with ash content not exceeding 34% shall be complied with, as applicable.                                                                                                                                                                                                             | Not applicable since the coal is sourced from mines located at distance of less than 500 Kms.                                                                                                                                                                                                              |
| xii  | MoEF&CC Notifications on flyash utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 and subsequent amendments shall be complied with.                                                                                                                                                                                 | Noted.                                                                                                                                                                                                                                                                                                     |
| xiii | As proposed, ash pond shall be lined with HDPE liner.                                                                                                                                                                                                                                                                                                                                                | Noted, HDP/LDPE lining will be carried out in the proposed Ash dyke.                                                                                                                                                                                                                                       |
| xiv  | Third party evaluation/ Environment Audit shall be conducted annually for reviewing the compliance conditions stipulated in the clearances along with the baseline data/ studies carried out and the audit report shall be submitted to Ministry's Regional office.                                                                                                                                  | ISM Dhanbad is conducting annual Environmental Audit for reviewing the compliance conditions stipulated in the clearances.                                                                                                                                                                                 |
| xv   | Compliance of EC/amendment conditions, Environment (Protection) Act, 1986, Rules and MoEF&CC Notifications issued time to time shall be achieved by an Environment Officer to be nominated by the Project Head of the Company who shall be responsible for implementation and necessary compliance timely.                                                                                           | GM (Env) is responsible for implementation of EC conditions, EPA rules and MoEF notifications. He is directly reporting to Project head.                                                                                                                                                                   |

|      | Additional Conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Compliance Status                                                                                                                                                                                                    |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i    | The coal transportation from 21.5.2020 onward is governed by Ministry's Gazette Notification vide S.o. 1561 (E) dated 21st May , 2020.                                                                                                                                                                                                                                                                                                                                                                                                                         | Noted                                                                                                                                                                                                                |
| ii   | The details of quantities of ash generation, utilization to various purposes such as brick manufacturing, construction , soil condition & cement manufacturing and disposal shall be provide for six months (April- September & October- March) in the six monthly compliance report.                                                                                                                                                                                                                                                                          | The fly ash generation and utilization report for the period of April-2020 to September-2020 is attached as Annexure-IX.                                                                                             |
| iii  | As per the Ministry's fly ash amendment Notification vide S.O. 254 ( E) dated 25.01.2016 , the company shall upload the details of stock of each type of ash generated/available from all the units (4X250 MW and 4X600 MW ) on their website and shall update the stock position regularly.                                                                                                                                                                                                                                                                   | Complied with.                                                                                                                                                                                                       |
| iv   | As per the Ministry's fly ash amendment Notification vide S.O. 254 ( E) dated 25.01.2016 , the fly ash shall be supplied to various utilising units. The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred km from thermal power station shall be borne by the company and the cost of transportation beyond the radius of hundred km and up to three hundred km shall be shared equally between the user and the company. | Noted                                                                                                                                                                                                                |
| v    | For achieving compliance of fly ash notification, a map and details of ash utilising units within 100 km radius and 100-300 km along with quantity of ash required for each unit shall be prepared and submitted to the Ministry within 3 months.                                                                                                                                                                                                                                                                                                              | The details of ash utilising units within 100 km radius and 100-300 km along with quantity of ash required has been submitted to Ministry vide letter no JPL/EMD/F-33/4X600MW TPP/ OCT-20/377 dated 16.11.2020.      |
| vi   | A public notice in major daily newspapers shall be published in both vernacular and English that the fly ash/bottom ash will be supplied free of cost for ash utilising units located within 100 km radius and the cost of transportation will be shared equally between user and company for ash utilising units located in the radius of 100-300 km , in compliance to the fly ash amendment notification dated 25.01.2016. A copy of newspaper advertisement shall be submitted to Regional office.                                                         | A public notice has been issued in two major newspapers (Hitavada in English and Naveen Kadam in vernacular language) on 04/11/2020 & 11/11/2020 respectively. The copy of advertisements is attached as Annexure-X. |
| vii  | While commissioning the proposed project, the compliance of applicable revised emission norms vide Notification dated 07.12.2015 , shall be achieved along with specific water consumption as per the notification issued vide dated 28.6.2018. The FGD system, NOX control measures such as SCR/SCNR/De-Nox burners shall be installed to achieve the revised emission norms.                                                                                                                                                                                 | Noted.                                                                                                                                                                                                               |
| viii | Coal crusher inside the plant premises is permitted which is to be set up with bag filters /dust suppression to control air pollution generated due to coal crushing, coal transfer, etc. Air quality monitoring is to be done in and around the crusher house once a month to assess the pollution causing in the vicinity                                                                                                                                                                                                                                    | Already commissioned with requisite pollution control measures, as stipulated                                                                                                                                        |
| ix   | The progress and readiness of railway line being constructed by M/s chhattisgarh East Railway Limited from Gharghoda till Bhalumuda shall be submitted along with compliance report.                                                                                                                                                                                                                                                                                                                                                                           | Let us give progress here                                                                                                                                                                                            |
| x    | The physical and financial progress of private siding by the company and take off line from Bhalumunda station shall be submitted. A copy of detailed Project Report (DPR) approved by South East Central Railway (SECR) is also to be submitted.                                                                                                                                                                                                                                                                                                              | Can we give some progress ???                                                                                                                                                                                        |
| xi   | Traffic Marshals at kudumkera village, Baroud Village, Samaruma village and Jhingolpara village along the route of Kulda/Basundhara mines and chhal/Barodh mines shall be developed at the cost of project proponent to streamline the traffic as the total traffic is exceeding the design volume                                                                                                                                                                                                                                                             | Complied with                                                                                                                                                                                                        |
| xii  | Water sprinkling on the road shall be done during transportation along the routes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Complied with                                                                                                                                                                                                        |
| xiii | Avenue plantation shall be carried out in consultation with Social Forestry Department of the State Govt. along the proposed routes.                                                                                                                                                                                                                                                                                                                                                                                                                           | Avenue plantation along the route (both sides of the road) of coal transportation from SECL and MCL mines is being done on continuous basis.                                                                         |

**JINDAL POWER LIMITED, TAMNAR**

**Compliance Report of Environmental Clearance for Expansion of 4x250 MW by addition of 2x600 MW (Units-3& 4) Coal Based Thermal Power Plant ,Tamnar issued vide letter No.J.13012/117/2008-IA.II (T) dated 04/11/2011 and amendment vide letter No.J.13012/117/2008-IA.II (T) dated 10/01/2014.**

| <b>A</b> | <b>Conditions</b>                                                                                                                                                                                                                                                                                                                                | <b>Compliance Status</b>                                                                                                              |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| (i)      | The company shall comply with all the conditions stipulated in environmental clearance of even no. dated 18.03.2011 except the specific condition no.i                                                                                                                                                                                           | All the conditions stipulated in environmental clearance of even no. dated 18/03/2011 has been complied.                              |
| (ii)     | Prior permission/clearance from the Ministry of Coal shall be obtained before undertaking construction activity for the expansion project.                                                                                                                                                                                                       | Permission has been obtained from Ministry of Coal vide letter dated 01/11/2011 and construction is in progress.                      |
| (iii)    | In case source of fuel supply is to be changed at a later stage for the proposed 2x600 MW (Units 3 and 4) now proposed to be run on imported coal from M/s JSPL Mozambique Minerals LDA, the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change. | JPL has obtained amendment in EC from MoEF&CC on 26.04.2017 for change of coal source from imported to domestic coal for Units 3 & 4. |

Jindal Power Limited, Tamnar

Annexure-I

STACK MONITORING REPORT (4x600MW TPP) OF APRIL, 2020 TO SEPTEMBER, 2020

| Month  | Name of the Unit | Stack height (Mtr.) | Stack diameter (Mtr.) | Exit Velocity (m/sec) | Concentration of PM (mg/Nm <sup>3</sup> ) |
|--------|------------------|---------------------|-----------------------|-----------------------|-------------------------------------------|
| Apr-20 | Unit-1           | 275                 | 6.70                  | Unit Under Shut Down  | Unit Under Shut Down                      |
|        | Unit-2           |                     |                       | 23.7                  | 42.2                                      |
|        | Unit-3           |                     |                       | 24.2                  | 41.5                                      |
|        | Unit-4           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |
| May-20 | Unit-1           | 275                 | 6.70                  | Unit Under Shut Down  | Unit Under Shut Down                      |
|        | Unit-2           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |
|        | Unit-3           |                     |                       | 23.8                  | 42.3                                      |
|        | Unit-4           |                     |                       | 23.3                  | 37.5                                      |
| Jun-20 | Unit-1           | 275                 | 6.70                  | 23.3                  | 38.6                                      |
|        | Unit-2           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |
|        | Unit-3           |                     |                       | 23.4                  | 40.3                                      |
|        | Unit-4           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |
| Jul-20 | Unit-1           | 275                 | 6.70                  | 23.6                  | 41.4                                      |
|        | Unit-2           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |
|        | Unit-3           |                     |                       | 23.8                  | 42.2                                      |
|        | Unit-4           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |
| Aug-20 | Unit-1           | 275                 | 6.70                  | 23.8                  | 42.8                                      |
|        | Unit-2           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |
|        | Unit-3           |                     |                       | 23.4                  | 40.4                                      |
|        | Unit-4           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |
| Sep-20 | Unit-1           | 275                 | 6.70                  | 23.4                  | 44.6                                      |
|        | Unit-2           |                     |                       | 23.3                  | 43.3                                      |
|        | Unit-3           |                     |                       | 23.8                  | 38                                        |
|        | Unit-4           |                     |                       | Unit Under Shut Down  | Unit Under Shut Down                      |

Jindal Power Limited, Tamnar

Annexure-II

**GREEN BELT DEVELOPMENT**

| <b>2020-21 ( Till September 2020)</b>                                                                                                 |                                |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------|
| <b>Location</b>                                                                                                                       | <b>No. of Saplings planted</b> | <b>Name of the main species</b>                                                       |
| Within the plant<br>(Industrial canteen, Kelo vihar, near Gate No.2),<br>Colony, Rabo dam<br>area,Road side and in<br>nearby villages | <b>13100</b>                   | Alostonia, Gulmohar, Chakundi, Neem,<br>Mango, Teak , Peltophorm, Jamun, Amla<br>etc. |



## Financial Expenditure - CSR JPL -Tamnar

April to Sept - FY-2020-21

| Sr. No.          | Area of Intervention               | Heads                                                              | Annual Expenditure ( in Lakhs) |
|------------------|------------------------------------|--------------------------------------------------------------------|--------------------------------|
| A                | Health Drinking Water & Sanitation |                                                                    |                                |
|                  |                                    | Mobile Health Camp                                                 | 3.81                           |
|                  |                                    | Vatsalva Programme                                                 | 9.03                           |
|                  |                                    | Program Chiraniivi                                                 | 2.09                           |
|                  |                                    | Health Awareness Program & COVID - 19 related activities           | 4.66                           |
|                  |                                    | Safe Drinking Water                                                | 3.00                           |
|                  |                                    | ODF ( Awareness and Toilet construction)                           | 2.75                           |
|                  |                                    | Supply of safe drinking water                                      | 0.25                           |
|                  |                                    | Sanjivini Rural Health Care Centre/ Tele Medicine/ e health centre | 2.05                           |
|                  |                                    | Multispeciality hospital                                           | 0.00                           |
|                  |                                    | Support to poor patients                                           | 1.00                           |
|                  |                                    | Old Age Home                                                       | 0.00                           |
|                  |                                    | Improved facilities in PHC/CHC                                     | 0.00                           |
|                  |                                    | Installation of Solar based Safe drinking Water system/water ATMs  | 0.00                           |
|                  |                                    | HIV/AIDS Awareness program                                         | 0.00                           |
| <b>Sub Total</b> | <b>28.64</b>                       |                                                                    |                                |
| B                | Community Education                |                                                                    |                                |
|                  |                                    | Community teachers in Govt Schools                                 | 1.40                           |
|                  |                                    | Pre School Education- Balwadi                                      | 1.20                           |
|                  |                                    | Little Angel Centre                                                | 1.61                           |
|                  |                                    | Parivartan Project                                                 | 0.00                           |
|                  |                                    | CLC and Knowledge Park                                             | 0.98                           |
|                  |                                    | School Infra                                                       | 3.75                           |
|                  |                                    | OPJ Star & OP Jwell Scholarship                                    | 3.00                           |
|                  |                                    | OPJS Rabo                                                          | 5.00                           |
|                  |                                    | National Event Celebration                                         | 0.00                           |
|                  |                                    | Asha The Hope                                                      | 2.50                           |
|                  |                                    | OPJCC                                                              | 0.00                           |
|                  |                                    | OPJPT                                                              | 0.00                           |
|                  |                                    | OPJS Kunjemura                                                     | 0.00                           |
| <b>Sub total</b> | <b>19.44</b>                       |                                                                    |                                |

|   |                                   |                                                                                                           |             |
|---|-----------------------------------|-----------------------------------------------------------------------------------------------------------|-------------|
| C | Location based EDP/<br>Livelihood | Swalamban Project - Training and other support to villagers especially SHG members for Income Generation  | 1.72        |
|   |                                   | Shubhangi Project - Project for Menstrual health and hygiene                                              | 1.04        |
|   |                                   | Aakriti Project                                                                                           | 1.48        |
|   |                                   | Livelihood Resource Centre                                                                                | 1.25        |
|   |                                   | Terracotta                                                                                                | 0.50        |
|   |                                   | Mushroom production                                                                                       | 1.40        |
|   |                                   | Swa-Shakti (Women Leadership Development Program)                                                         | 1.59        |
|   |                                   | <b>Sub total</b>                                                                                          | <b>8.98</b> |
| D | Natural Resource Management &     | Scientific Technology in Agriculture                                                                      | 0.00        |
|   |                                   | Community Plantation                                                                                      | 0.60        |
|   |                                   | Wadi Development Program                                                                                  | 1.00        |
|   |                                   | Pond deepening                                                                                            | 5.00        |
|   |                                   | <b>Sub Total</b>                                                                                          | <b>6.60</b> |
| E | Agriculture Developemnt           | Paddy cultivation through SRI                                                                             | 2.50        |
|   |                                   | Vegetable cultivation                                                                                     | 0           |
|   |                                   | Farmers training                                                                                          | 0.2         |
|   |                                   | <b>Sub Total</b>                                                                                          | <b>2.70</b> |
| F | Sports, Arts & Culture            | Maintenance of Ghargoda Stadium                                                                           | 1.66        |
|   |                                   | O.P.Jindal Cricket Academy                                                                                | 3.00        |
|   |                                   | Support to Youth Clubs to organize sports competetion and cultural activities                             | 0.00        |
|   |                                   | Improved sports facilities in the village                                                                 | 0.00        |
|   |                                   | CSR week Celebration                                                                                      | 0.77        |
|   |                                   | Celebration of Social Entrepreneurship day                                                                | 0.00        |
|   |                                   | <b>Sub Total</b>                                                                                          | <b>5.43</b> |
| F | Rural Infrastructure              |                                                                                                           |             |
|   |                                   | Construction of Muktidham                                                                                 | 0.00        |
|   |                                   | Construction of Road                                                                                      | 0.00        |
|   |                                   | Construction of Bathing Ghats and pond renovation                                                         | 0.00        |
|   |                                   | Construction of community building/beautification/additional room water facilities for community building | 0.00        |

|                                                               |                                      |                                                                                                                        |              |
|---------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------|
|                                                               |                                      | Painting/rnovation of community Infrastructures                                                                        | 0.00         |
|                                                               |                                      | Misc. infra work as per request of District Authorities/ local leaders                                                 | 0.00         |
|                                                               |                                      | Installation of high mask light at Tamnar                                                                              | 0.00         |
|                                                               |                                      | <b>Sub Total</b>                                                                                                       | <b>0</b>     |
| <b>G</b>                                                      | <b>Administrative, Documentation</b> |                                                                                                                        |              |
|                                                               |                                      | Personnel                                                                                                              | 12.44        |
|                                                               |                                      | Vehicle Hire/Petrol                                                                                                    | 1.05         |
|                                                               |                                      | Training, Exposure visit, capacity building of staff, HoD meet, conference, Application for Awards / audio visual etc. | 0.00         |
|                                                               |                                      | <b>Sub Total</b>                                                                                                       | <b>13.49</b> |
|                                                               | <b>Grand Total</b>                   |                                                                                                                        | <b>85.28</b> |
| <b>Rupee Eighty Five Lakhs and Twenty Eight Thousand only</b> |                                      |                                                                                                                        |              |

## Physical Achievement Report JPL- CSR 2020-21 (April- 2020 to Sept - 2020)

### Health, Sanitation & Drinking water

#### Rural Health Camp through Mobile Dispensary

- In the villages a total 162 health camps were organised through mobile dispensary. In the camps, a total 3844 patients (Male- 825, Female-1507, Children-1166, Old age-346) were treated in which 31 patients were referred to e- health centre (telemedicine centre) being run by JSPL foundation with the support of HP at Salihabhanta village. 38 patients were referred to district hospital, Raigarh.

#### Vatslaya Project –MCHN Program

- Under Vatsalaya Project, 347 community meetings were organised in which 3853 women participated. 186 ante natal and 187 post-natal care sessions were organised in which 1040 pregnant women and 1380 mothers were benefited respectively. 251 Khelwadis were organised in which 2151 children participated respectively. *To ensure sustainability of the project it proposed to strengthen Village Health and Sanitation Committee (VHSC) so that our VHVs become the member of the committee. In this regard 209 VHSC meetings were organised.*
- In the period of April -20 to September-20 a total delivery 209 delivery were reported out of which institutional was 208, which is around 99.52 %, 2067 adolescent girls were aware on health & hygiene through 195 Kishori Swasthaya Pathshala, 40 Vatsalya Centre running to provide counselling and first aid services to community. In the period of April -20 to September -20 -1250 first aid services and 1362 counselling of ANC/PNC, eligible couple done. Total vaccination among children 1530 against the target of 1530 which is 100%
- 24000 Masks and 500 litres of sanitizers were distributed in 38 villages through VHVs in convergence with local administration and Police department. *The VHVs have been playing a crucial role in helping the local Govt. health department for contract tracing.*
- 18969 people sensitize on Covid -19 through Mobile communication by VHVs. To make aware community on COVID-19, 10000 pamphlets were distributed through VHVs.

#### Chiranjivi Project – Combat Malnutrition

- 'Chiranjeevi program' in convergence with ICDS is taking care of 405 malnourished children (Moderate-335, Sever - 70) by providing regular growth monitoring, parents counselling and clinical support. BMI of 2250 children of age group 06 month to 5years were measured in April-2020. In the BMI measurement campaign 405 malnourished children were identified. Growth Monitoring cards were issued to each individual for tracking of growth monitoring of the children. The identified malnourished children were linked to ICDS schemes with the help of our "Swasthaya Sangini" (VHVs) for nutrition supplement. For clinical support of malnourished children we called them at e health

centre for further treatment. The data reveals that, out of 405 malnourished children 117 turned to general category from the period of April- 20 to September -2020 remain 288 malnourished children are under monitoring. During the COVID 19 take home Ration for 405 malnourished children provided through ICDS.

### E health Centre

In the e-health centre at village Salihabhanta, a total 846 patients were registered and treated. The details of registered patients are as Internal medicine -467, Gyne-25, General surgery-03, Pediatric -144, other -207, out of 14 referred to OPJHRC, CHC Tamnar and district hospital Raigarh.

**Support to Poor Patients:** - To support for the treatment of the poor patients CSR supporting to the patients under referral support. In the period of April to Sept -20, FY-2020-21, 36 patients treated in convergence with Govt. Health department convergence of Rs.5.40 lakhs. 06 poor patients directly supported for treatment.

### ODF Program

- Under Open Defecation Free program, 167 meetings were organised in 38 villages to promote use of toilet. Block –Tamnar declared ODF, most of people have toilet. As far as uses of toilets are concerned most of them are using except few like old age people. This year under the ODF program we have set a target to promote people for 100% use of toilets. **From the period of April-20 to September-20** under ODF program 167 awareness programs were organised more than 1605 people attended

### Community Drinking Water

- To provide drinking water in community 03 submersible pump were repaired and installed in village Basanpali, Pata-Bandhapali. Drinking water facilities were provided at village –Kunjemura by excavation of borewell with water tank. Bore well excavated at community center village-Godi, benefiting more than 2000 people.
- Drinking water was supplied through water tanker to 1500 families, more than 6200 people benefited.

### Health Awareness & COVID-19 prevention and awareness program

**World Sickle Cell Day-** To increase public awareness and understanding about sickle cell disease and the challenges experienced by patients and their families, World Sickle Cell day was observed on 19th June'20. Sickle cell awareness program was organised in 06 villages (Beljor, Kunjemura, Chharatagar, Mahloi, Chitwahi, and Kasdol). More than 250 people attended. Counselling session were also organised for sickle cell patients. Till date more than 240 sickle cell patients benefiting under CSR referral support , arrangement of blood providing in convergence with Blood Bank and regular follow-up by medical staff to ensure healthy life of the patients.

**World No Tobacco day** –According to WHO, tobacco use kills more than 8 million people around the world each year. Smoking any kind of tobacco reduces lung capacity and increases the severity of respiratory diseases. Covid19 is an infectious disease that primarily attacks the lungs. Due to which, research suggests that smokers are at higher risk of developing severe Covid-19 outcomes and death. To reduce the use of Tobacco among youth, awareness program was organised in 12 villages, around 150 youth attended the sessions. More than 25 youth groups involvement in campaign, 900 youth sacrifice to the use of tobacco.

## **World Population day**

World population day observed on 11<sup>th</sup> July. To spread messages of small family norms and make eligible couple aware on contraception, a week-long awareness campaign organized from 11<sup>th</sup> to 17<sup>th</sup> July 2020 in operational villages. On 11<sup>th</sup> July a program was organized at Sanjivini under in which 14 ideal couples were felicitated by President and COO –JPL Tamnar Shri Nageen Kothari. 08 awareness programs organized in village – Mahloi, Kunjemura, Regaon, Jhinkabahal, Libra, Chharatangar, Doleshara and Salihabhanta, more than 250 eligible couple attended.

## **World Breastfeeding week**

Breastfeeding provides every child with the best possible start in life. It delivers health, nutritional and emotional benefits to both children and mothers. And it forms part of a sustainable food system. Every year 1st week of August celebrated world breast feeding week. In this regard under Vatsalya Project CSR JPL Tamnar organized an awareness campaign in operational villages. Under the campaign 21 awareness program on breast feeding conducted in 21 villages, 310 mothers attended

**Awareness and mask distribution against COVID-19 prevention-** COVID -19 pandemic spreading in world. There's currently no vaccine to prevent coronavirus disease (COVID-19). To make rural people aware and promote preventive measure on COVID-19, sensitization & awareness programme in nearby communities is being done on continuous basis through mobile communication, small meetings with proper physical distancing norms, pamphlet/masks/ hand wash/ medicated soap and sanitizer distribution.

In the period of April to September 85 awareness program organized out of 40 program organized on-19 and 45 on general health, sanitation, sickle cell, diabetes, hypertension, water borne diseases, more than 4200 people attended, around 15000 people make aware through mobile communication, 24,000 washable face masks were distributed in Gram Panchyat, health department and other Govt. offices, workers and employees. CSR JPL provided mask to DCP, NALWA, SSD Punjipatra and Mines area also. The 24000 (19000 single and 5000 double layer) masks were stitched by the team of Aakriti Multipurpose Cooperative society.

## **Corona warrior's felicitation program**

Considering the COVID -19 pandemic and make every employee, contract workers aware, ensured to follow the preventive measure regarding COVID-19. JPL Tamnar identified Corona warriors from each department and trained them. These people are used to visit various sites of the plant and sensitizing the employee to use face mask, regular hand sanitization, throughout availability of the mask and sanitizer, monitoring of the visitors, quarantine centre, help in contract tracing. On the occasion of the Hon. Babuji Birthday week these 40 identified corona warriors were facilitated by JPL Management

## **Population Stabilization Program**

Under population stabilization program, 179 eligible couple meetings were organised by VHV's in which 2253 women benefited, counselling was done to 712 individuals in Vatsalya Centre, , and the total contraceptive users were registered to be 13205 where as in villages. World Population day observed, a weeklong awareness campaign organised under the campaign 10 mass awareness program done with 650 couple. 14 ideal couple honoured under the campaign.

## **"Shubhangi Project "- Menstrual health and promotion of Low cost Sanitary Napkin**

- CSR JPL initiated Subhangi project to enhance the menstrual health status and promotion of low cost Sanitary Napkin among adolescent girls and women. To make aware adolescent girls on menstrual health & hygiene, 214 educational sessions were organised in 38 villages through VHVs. More than 2167 women participated during the awareness sessions information about COVID-19 was also provided to the adolescent girls and women.
- The social business model of manufacturing and distribution of sanitary napkin witnessed social marketing of 8987 packet Sanitary Napkins of Rs.2.25 Lakhs. In the period of April-20 to September-20 a total 8987 packets Sanitary Napkins sold of Rs.2.25 Lakhs by VHVs & SHGs. SHGs earn Rs.9000/., VHVs earn Rs.45000/.

## Community Education

### Balwadi Birhor Community

In village Kachkoba, the Pre-Primary classes with the children of Primitive tribe (Birhor) are in progress. 13 Children are going through Pre -school education with Mid-day meal facilities. During the COVID-19 Dry Food Packet (Rashan) were distributed to 26 Birhor family, serving regularly mid- day meal to all 22 Birhor Children. World Tribal day observed with Birhor community, mosquito net, soap, face mask distributed among 26 Birhor families.

### Little Angel Pre Primary education centre

Pre-Primary classes are in progress at Little Angels in village Doleshara, Salihabhanta, and Kunjemura & Libra, Budia , Chharatagar with strength of 180 children. In current education session 110 children get admission in nearby English medium school 110 new children enrolled. All Little Angels Centre running in Panchyat Building and the centres are managed by Local Management committee. Regular Parents and Management committee meeting were organised to ensure involvement of parents and community. Due to COVID-19 pandemic situation formal classes are not being conducted. The resource persons are undertaking home visit on regular basis to each children to facilitate and groom them as per curriculum. All the 6 centres are functional.

### OP Jindal Primary School Rabo & OP Jindal School Kunjemura

OP Jindal Primary School Rabo and OP Jindal Secondary School Kunjemura are running successfully with strength of 225 at Rabo and 1004 at Kunjemura against the target of 240 and 1100 children respectively. OP Jindal Primary School Rabo upgraded up-to standard VII. Online classes are being done at both the schools. 51 poor children are benefiting from RTE (43 from OPJS Kunjemura and 08 from OPJS Rabo)

### OPJ Star and OPJ Jewell

OP Jindal star scholarship was awarded to 12 students who were shortlisted and finalized last year as per the merit list i.e. marks secured in class X board examination. 03 scholarships under OP Jewell were also awarded for technical student perusing B.Tech. Scholarship cheque distributed to 15 students on the occasion of Hon. Babuji Birthday. 22 new applications received for OPJ star scholarship for FY-2020-21.

### Community Learning and Knowledge Centre

- JPL Tamnar established Community Learning Centre (CLC) and KNOWLEDGE PARK at village Libra and Rabo to update children and youth on current affairs, general Knowledge, employment information and Library facilities. Under the CLC and Knowledge centre more than 840 youth and children benefiting.
- **Career Counselling sessions for youth** - To help youth to understand their own strengths and weaknesses with regard to their present academics and let them know what career they would be suited for, a career counselling session was organised under CSR week at community learning and Knowledge centre Libra & Rabo through team of OP Jindal Community college (OPJCC). More than 45 youth attended and guided for better career.

### **School Infrastructure –**

- To provide basic amenities in schools, drinking water facilities provided at Govt. Middle school Godi, Water cooler in 06 schools, repairing of Govt. Middle school Chharatangar, Toilet at Govt. Primary school Chharatangar, benefiting more than 3000 children

## **Entrepreneurship Development Programme**

### **Project Mushroom Production - Training and Capacity Building**

- To provide technical support to the farmers and entrepreneurs of the area, **a mushroom production resource centre has been established.** The resource centre comprises of classroom training centre, demonstration centre, spawn production centre and field orientation to the trainees by visiting beneficiaries in villages. The training comprised of theoretical and practical orientation on different process for the cultivation which was later supplemented with the field visit. *In the period of April-20 to Sept.-20 a total 08 training were organised with 115 farmers.*
- **Mushroom production:** CSR JPL supporting to farmers for Mushroom cultivation by providing regular training and marketing support. In the period of April-20 to Sept-20 A total 9023 Kg. mushroom (Paddy straw& Oyster) were produce and sell by mushroom growers 350 farmers. The Farmers earned more than Rs.18.04 Lakh by sell of Mushroom.
- **Mushroom Spawn production** - Mushroom spawn production center is being run by a Common Interest Group (CIG) 'Tamnar Samahit Samuh' promoted by OPJSKS. The centre ensures availability of quality Mushroom spawn to villagers on time. In the period of April-20 to September-20 spawn produce 11959 bottles of Rs.2.63 Lakhs and supplied to more than 450 SHGs and Farmers. This self-sustaining center supplies seeds to mushroom growers of the Tamnar block as well as the producers in Raigarh, Korba, Ambikapur districts.

### **Aakriti Sewing and Design School and Aakriti Production Centre**

In the period of April-20 to September -20 the members of the cooperative stitched various cloths i.e. pillow cover, school dress, Kusion cover table mat, suit, cotton mask etc. Total earnings by Aakriti beneficiaries were Rs. 10.59 Lakhs. The group stitched 24000 mask earned income of Rs.2.40 Lakhs from mask. A total 73 women are engages under Aakriti earning Rs.5000 to Rs.9000 per month.

### **Project Swa Shakti and Swawlamban (Income Generation Activation)**



- Under project Swa-Shakti (women SHG formation and strengthening), 156 SHGs exists in 38 villages in which more than 1656 women are associated with the project. Till date more than 78.55 lakhs have been saved and inter loaning by the SHGs. Documents submitted of 70 SHGs under NLM for grading.
- Technical and Marketing support to 73 terracotta artisan is continued in this quarter in village Mahloi (14), Basanpali (24) and Auraimuda (35). *The Terracotta artisans earned Rs. 2.73 Lakhs in this quarter from exhibitions and sale.*
- On the basis of performances, many SHGs have been supported financially by CSR JPL to initiate Income Generation Activities. 73 units of IGAs with 722 women are being run by the SHGs and they have managed to earn Rs. 16.69 Lakhs in the period of April to Sept-20. 10 SHGs linked from NABFIN get a Loan of Rs.10.50 Lakhs for setting up IGAs.
- **Ayurvedic Kadha production:** - To boost immune system and to prevent throat infection, Ayurvedic Kadha is very effective. To ensure access of best quality & cost effective Ayurvedic Kadha to the community, our SHG is producing Ayurvedic Kadha as per guideline of Ayush Mantaralaya Govt. of India. It is producing and marketing by Pragati SHGs-Budia in guidance with Mushroom Resource Centre staff. The activities initiating from mid-September-20. More than 300 packets 50 gm each with Rs.30/. Per packet produce and sold. The cost of Kadha packets is Rs. 26.50 , Rs.3.50 per packet goes to SHGs & VHVs.

## **Natural Resource Management & Environment proction**

### **Wadi Development Program in partnership with NABARD**

The Wadi project is successfully executed in 335 acre (Phase-I - 159 Phase- II- 176) with 335 tribal families. Fruiting of mango, cashew & lemon are continue in 300 acre Wadi, rest 35 farmers doing intercropping in their field growing and selling cash crop regularly. In the period of April to September-20 WADI farmers earned Rs.24.49 Lakhs by sell of Mango, lemon, cashew, inter cropping and vegetable cultivation. Irrigation facilities completed in all 335 acre Wadi, farmers growing seasonal vegetable, pulses in Wadis. Fertilizer distributed to wadi farmers 03 Solar based irrigation system proposed to install in wadi in convergence with CREDA

### **Solar based irrigation system in convergence with CREDA**

To promote renewable energy sources, JSPL Foundation is promoting installation of solar based irrigation system in farmer's field for irrigation purpose in convergence with CREDA. *16 solar based irrigation systems were installed which has helped irrigation in 60 acres of land, this project make total convergence of Rs. 60.00 lakh.* In this quarter application of 42 farmers were submitted to CREDA for installing the solar based irrigation pumps. This will result in facilitating irrigation in 175 acres of land.

The cost of each unit is Rs. 3.5 Lakhs to 3.75 Lakhs; proposed convergence is more than Rs.157 Lakhs.

### **Environment protection and community plantation**

To make people aware on environment protection, environment pollution and promote them to plant more and more tree to save the earth, World Environment Day was observed on 5<sup>th</sup> June 2020. Plantation drive and environmental awareness program were organized in 06 villages (Mahloi, Degaon, Padigaon, Godi, Amaghat, and Chharatagar). In the program 200 farmers were participated & 200 plantations were done. 3000 plantation and gap filling in WADI field was proposed

## Agriculture Development

### Paddy cultivation through SRI methods

The System of Rice Intensification (SRI) is a methodology aimed at increasing the yield of rice produced in farming. It is a low water, labor-intensive, method that uses younger seedlings singly spaced and typically hand weeded with special tools. To increase productivity in paddy crops through focused interventions and maximizing returns to farmers. SRI methods applied under Paddy cultivation in 100 acre benefiting 100 Farmers. Sugar free black rice cultivation in 10 acres of land is also being done. In this regard best quality Hybrid Paddy seed and training was provided to 100 Farmers.

### Farmers training to adopt innovative practices in farming

To improve the skill of farmers and make them adequate enough on new technologies and innovative practices in farming, 04 training programmes were organised with 100 Farmers in convergence with Agriculture Department. In the training new technique in Paddy cultivation, crop insurance, other govt. schemes for farmers, promotion of pulses cultivation was discussed.

### Promotion of Vegetable cultivation –

To increase the income of farmers we are promoting vegetable cultivation among farmers. Under the initiative 40 farmers are doing vegetable cultivation. In the quarter during the lock down, farmers earned more than Rs.2.75 Lakhs income from vegetable selling. Farmers sold vegetable in JPL colony Savitri Nagar also.

## Art & culture

### World Tribal day

Tamnar is a tribal dominated area in which more than 70% population of the area is tribal. **To promote and protect the rights of the world's indigenous population** make them aware about environmental protection, World tribal day was observed among primitive tribe i.e. Birhor community In hamlet Seetapara village –Kachkova where 26 families of Birhors living in forest have no road connectivity. On the occasion of world tribal day mosquito net, educational material, hand sanitizer, face mask, dresses for Balwadi children distributed and food were arranged for the tribals. Under CSR we are executing a Balwadi Centre at Seetapara Birhor community to ensure pre-primary education for the children and livelihood intervention to enhance socio-economic status of the Birhor tribes.

### Sports

**Maintenance of sports infrastructure:** Maintenance of Ghargoda stadium is continued wherein sports like Cricket, Football and Badminton are organised regularly, benefiting more than 225 youths from the peripheral villages.

**OP Jindal cricket Academy-** OP Jindal cricket academy is running in Ghargoda which is fully equipped with latest infrastructure like Bowling machine, cricket net for net practise, equipped cricket kit. Due to COVID 19 situation sports activities are postponed.

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**Status of the Implementation of the Schemes for Tribal families for the period from April -2020 to September-2020**

| Sl. No. | Program                                                                                                           | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Intervention of OPJSKS-CSR JPL Tamnar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.      | Balwadi (pre-school education centre) for the children of Birhor primitive tribes in Sitapara of Kuchkoba village | Birhor is one of the primitive tribes residing in Sitapara of Kachkoba Panchayat. At present there are 28 families who are mainly dependent on rope making from plastic gunny bags and wage labour work for their livelihood. The educational status of the community is very poor as out of total 86 people of the community, only 05 are class 8 <sup>th</sup> pass and rest are either primary pass or illiterate.                                                                                                                        | To improve the educational status of the community, especially the children, a Balwadi centre is being run by OPJSKS since 2009. The organization constructed the building to run the centre and provided Teaching & Learning Materials (TLMs), Uniforms to the children, one Balwadi teacher, one cook and regularly providing mid-day meal to the 22 children. .CSR JPL ensuring health & Sanitation of above primitive tribe, 06 health camps through Mobile dispensary organised, 05 health awareness program organised in Birhor community. During the COVID-19 Dry Food Packet (Rashan) were distributed to 26 Birhor family, serving regularly mid-day meal to all 22 Birhor Children. |
| 2.      | Wadi Development Program with the support of NABARD for the small and marginal tribal farmers                     | Indiscriminate exploitation of forest resources and poor crop production practices has resulted into low productivity, degradation of agriculture land and depletion of forest resources. As a result because of shortage of food and livelihood opportunities the tribal of the area use to migrate to nearby town for the substance. The 'Wadi Development Programme' (WDP) is the first and rare most attempt of JPL, where the farmer are taught about modern techniques of agriculture after making their lands fertile and productive. | The Wadi project is successfully executed in 335 acre (Phase-I - 159 Phase- II- 176) with 335 tribal families. Fruiting of mango, cashew & lemon are continue in 335 acre Wadi, farmers also doing intercropping, vegetable cultivation in their field growing and selling cash crop regularly. In the period of April to September FY-2020-21 farmers earned Rs.24.49 Lakhs. by sell of Mango, lemon, cashew and inter cropping and vegetable cultivation. Irrigation facilities completed in all 335 acre Wadi, farmers growing seasonal vegetable, pulses in Wadis. Fertilizer distributed to wadi farmers for vegetable cultivation.                                                      |
| 3.      | Health improvement programme specifically for the tribal women                                                    | Health is another challenging area where facilities for health are still far from the reach of rural people specifically tribal. Age old traditional health practices, home based delivery, High MMR and IMR, water borne diseases, communicable diseases have been quite prevalent in the area. Remoteness, unawareness, lack of facilities to access the available resource/institutions has further aggravated the condition. To address the issues of health of tribal, last year                                                        | In the period of April to Sept. FY-2020-21 total delivery was reported 209 out of which institutional was 208, which is around 99.52 % 2067 adolescent girls aware on health & hygiene through 195 Kishori Swasthaya Pathsala, 40 Vatsalya Centre running to provide counselling and first aid service benefited more than 2612 people. Total vaccination among children 1530 against the target of 1530 which is 100% In convergence with ICDS has successfully undertaken the nourishment care of 405 malnourished children (Moderate-335, Severe-70) by providing regular growth monitoring, parents counselling and clinical support. The identified malnourished children were linked to |

|    |                                                                                     |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                     | an integrated approach was designed and implemented.                                                                                                                                                                                                                   | <p>ICDS schemes with the help of Swasthaya Sangini (VHVs) for nutrition supplement. For better clinical support these children were called for further treatment at e health centre. out of 405 malnourished children 117 had turned to normal category, which resulted 28.88 % reduction in malnutrition in the period of April to Sept-20.</p> <p>Under Muskan project 250 identified anaemic girls were covered by providing regular treatment and counselling 120 girls cured from anemia. Under Shubhangi project menstrual health and hygiene session organised and ensuring access of Sanitary Napkins. In the period of April to Sept-20 FY- 2020-21 SHGs and VHVs earned Rs.54000/.</p> |
| 4  | Rural Health Camp through Mobile Dispensary                                         | To provide basic healthcare services at the doorstep of villagers specifically for vulnerable social group- Tribal                                                                                                                                                     | In the period of April to September- FY 2020-21, 162 Rural Health camp organised more than 3844 patients were treated. The bifurcation of the patients are as- Male- 825, Female-1507, Children-1166, Old age-346                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5  | Women Empowerment through Self Help Group (SHG) and Income Generation Program (IGP) | Self Help Group of women is a medium to empower women by initiating regular meetings and thrift and credit. Once the groups become strengthen, Income Generation Activities (IGAs) are initiated to involve all the women of the groups in some meaningful activities. | Self Help Groups have been formed in the villages of homogeneous communities. At present 156 SHGs have been formed which constitutes around 1656 women members and the total corpus of the groups is around Rs. 78.55 Lakhs. Around 72 SHGs have initiated IGAs in different villages. Women are involved in goat rearing, Mushroom Cultivation, vegetable cultivation, Poultry,Goatry, multipurpose agricultural activities, flour making, paper plate making etc. In the period of April to Sept FY 2020-21 women earned Rs.16.69 Lakhs. from IGAs.                                                                                                                                            |
| 6. | Mushroom Cultivation                                                                | More than 650 people were trained on Mushroom cultivation. 350 villagers are directly involved in production and selling.                                                                                                                                              | <p>Mushroom Cultivation executing in 28 operational villages involved 450 individual cultivators and members of women SHGs who were supported and guided by the CSR JPL. In the period of April to Sept-20, FY 2020-21, 9023 Kg. of Mushroom were produced worth Rs. 18.04 Lakhs.</p> <p>Tamnar Samahit Samuh' – a common interest group of youths supported by CSR JPL to produce <i>11959 bottles of spawn were produced against the target of 10000 bottle which was sold of Rs. 2.63 Lakhs.</i> This self-sustaining center supplies seeds to mushroom growers of the Tamnar &amp; Ghargoda block as well as the producers in Raigarh, Korba, Ambikapur districts.</p>                       |

|   |                                                                    |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                         |
|---|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7 | Pre –Primary education –Little Angel Centres & OP star scholarship | 06 Little Angel Centre in 06 villages , more than 150 tribal children studying                                     | To provide pre-primary English medium education for children's 2.5 year to 4 years with the objective to mainstream them in nearby English medium schools. Under Little Angel 150 tribal children studying. OPJ star scholarship providing to 02 tribal children @ Rs. 12000/. Per year who have passed class 10 <sup>th</sup> with 75% |
| 8 | Promotion of Agriculture among tribals                             | Promotion of yield in Paddy cultivation and vegetable cultivation to ensure additional income for their livelihood | Promotion of Paddy cultivation by adopting SRI method with 70 tribal farmers by providing technical support hybrid seed and fertilizer. Vegetable cultivation with 40 tribal farmers.                                                                                                                                                   |



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Annex-III(a)

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|                                                                                                                                                                   |                  |                       |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|----------------|
| <b>Name &amp; Address Of The Customer</b><br><b>To,</b><br><b>Jindal Power Limited</b><br><b>P.O. Tamnar,</b><br><b>District: Raigarh</b><br><b>496107 (C.G.)</b> | Report No        | UES/TR/20-21/0320     |                |
|                                                                                                                                                                   | Lab Ref No       | UES/20-21/W/0347-0348 |                |
|                                                                                                                                                                   | Date of Sampling | 26/08/2020            |                |
|                                                                                                                                                                   | Date of Receipt  | 27/08/2020            |                |
|                                                                                                                                                                   | Date of Report   | 31/08/2020            |                |
|                                                                                                                                                                   | Date of analysis | Start:27/08/2020      | End:31/08/2020 |

**SAMPLE DETAILS**

|                                        |                                                    |           |          |
|----------------------------------------|----------------------------------------------------|-----------|----------|
| Customer Sample Id / Sampling Location | 1. Piezometer - 01 (Near Gate No. 03)              | Latitude  | 22.13197 |
|                                        |                                                    | Longitude | 83.45947 |
|                                        | 2. Piezometer - 02 (SW near Ash Dyke S.V.2)        | Latitude  | 22.11586 |
|                                        |                                                    | Longitude | 83.45075 |
| Customer Ref. No. & Date               | 4400013828, Date: 22/07/2020                       |           |          |
| Sample Type                            | GroundWater                                        |           |          |
| Packing Of Sample                      | Plastic Bottle (5.0 ltr.), Glass Bottle (1.0 ltr.) |           |          |
| Sample Collected By                    | Laboratory Chemist                                 |           |          |
| Sample Condition At Receipt            | Ok                                                 |           |          |

REPORT NO.0320

**TEST REPORT**

| SR. NO.                                                                             | PARAMETER                         | UNIT  | METHOD OF TEST      | AS PER IS 10500:2012 |                   | RESULT        |               |
|-------------------------------------------------------------------------------------|-----------------------------------|-------|---------------------|----------------------|-------------------|---------------|---------------|
|                                                                                     |                                   |       |                     | Acceptable Limit     | Permissible limit | Piezometer 01 | Piezometer 02 |
| <b>A. Organoleptic &amp; Physical Parameters</b>                                    |                                   |       |                     |                      |                   |               |               |
| 1                                                                                   | Colour                            | Hazen | IS:3025:(Part-4)    | 5                    | 15                | <1            | <1            |
| 2                                                                                   | Odour                             | -     | IS 3025(part-5)     | Agreeable            | Agreeable         | Agreeable     | Agreeable     |
| 3                                                                                   | pH Value at 25.4°C                | -     | IS:3025:(Part-11)   | 6.5-8.5              | No Relaxation     | 7.32          | 7.48          |
| 4                                                                                   | Taste                             | -     | IS 3025(part-8)     | Agreeable            | Agreeable         | Agreeable     | Agreeable     |
| 5                                                                                   | Turbidity                         | NTU   | IS 3025:(Part-10)   | 1                    | 5                 | 0.89          | 0.68          |
| 6                                                                                   | Total Dissolved Solids            | mg/L  | IS:3025:(Part-16)   | 500                  | 2000              | 176           | 52.9          |
| <b>B. General Parameters Concerning Substances undesirable in excessive amounts</b> |                                   |       |                     |                      |                   |               |               |
| 1                                                                                   | Aluminium (as Al)                 | mg/L  | IS 3025(part-55)    | 0.03                 | 0.2               | N.D.          | N.D.          |
| 2                                                                                   | Ammonia (as total ammonia-N)      | mg/L  | IS 3025(part-34)    | 0.5                  | No Relaxation     | N.D.          | N.D.          |
| 3                                                                                   | Anionic Detergent (as MBAS)       | mg/L  | Annex K of IS:13428 | 0.2                  | 1.0               | N.D.          | N.D.          |
| 4                                                                                   | Barium (as Ba)                    | mg/L  | Annex F of IS:13428 | 0.7                  | No Relaxation     | N.D.          | N.D.          |
| 5                                                                                   | Boron (as B)                      | mg/L  | IS 3025:(Part-57)   | 0.5                  | 1.0               | N.D.          | N.D.          |
| 6                                                                                   | Calcium (as Ca)                   | mg/L  | IS 3025:(Part-40)   | 75                   | 200               | 28.0          | 8.0           |
| 7                                                                                   | Chloramines (as CL <sub>2</sub> ) | mg/L  | IS 3025:(Part-26)   | 4.0                  | No Relaxation     | N.D.          | N.D.          |
| 8                                                                                   | Chloride (as Cl)                  | mg/L  | IS 3025:(Part-32)   | 250                  | 1000              | 24.9          | 18.9          |
| 9                                                                                   | Copper (as Cu)                    | mg/L  | IS 3025(part-42)    | 0.05                 | 1.5               | N.D.          | N.D.          |
| 10                                                                                  | Fluoride (as F)                   | mg/L  | IS 3025(part-60)    | 1                    | 1.5               | 0.73          | 0.39          |
| 11                                                                                  | Free Residual Chlorine            | mg/L  | IS 3025:(Part-26)   | 0.2                  | 1                 | N.D.          | N.D.          |
| 12                                                                                  | Iron (as Fe)                      | mg/L  | IS 3025(part-53)    | 0.3                  | No Relaxation     | 0.04          | 0.06          |

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REPORT NO.0320

### TEST REPORT

| SR. NO.                                            | PARAMETER                                               | UNIT | METHOD OF TEST                                          | AS PER IS 10500:2012 |                   | RESULT        |               |
|----------------------------------------------------|---------------------------------------------------------|------|---------------------------------------------------------|----------------------|-------------------|---------------|---------------|
|                                                    |                                                         |      |                                                         | Acceptable Limit     | Permissible limit | Piezometer 01 | Piezometer 02 |
| 14                                                 | Manganese (as Mn)                                       | mg/L | IS 3025 (part-59)                                       | 0.1                  | 0.3               | N.D.          | N.D.          |
| 15                                                 | Mineral Oil                                             | mg/L | Clause 6 of IS 3025 (Part-39) Infrared partition method | 0.5                  | No Relaxation     | N.D.          | N.D.          |
| 16                                                 | Nitrate (as NO <sub>3</sub> )                           | mg/L | IS 3025 (part-34)                                       | 45                   | No Relaxation     | 3.6           | 2.8           |
| 17                                                 | Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH) | mg/L | IS 3025 (part-43)                                       | 0.001                | 0.002             | N.D.          | N.D.          |
| 18                                                 | Selenium (as Se)                                        | mg/L | IS 3025 (part-56)                                       | 0.01                 | No Relaxation     | N.D.          | N.D.          |
| 19                                                 | Silver (as Ag)                                          | mg/L | Annex J of IS 13428                                     | 0.1                  | No Relaxation     | N.D.          | N.D.          |
| 20                                                 | Sulphate (as SO <sub>4</sub> )                          | mg/L | IS 3025: (Part-24)                                      | 200                  | 400               | 44.8          | 6.3           |
| 21                                                 | Sulphide (as H <sub>2</sub> S)                          | mg/L | IS 3025: (Part-29)                                      | 0.05                 | No Relaxation     | N.D.          | N.D.          |
| 22                                                 | Total Alkalinity (as CaCO <sub>3</sub> )                | mg/L | IS 3025: (Part-23)                                      | 200                  | 600               | 40.0          | 24.4          |
| 23                                                 | Total Hardness (as CaCO <sub>3</sub> )                  | mg/L | IS 3025: (Part-21)                                      | 200                  | 600               | 66.0          | 4.0           |
| 24                                                 | Zinc (as Zn)                                            | mg/L | IS 3025 (part-49)                                       | 5                    | 15                | N.D.          | N.D.          |
| <b>C. Parameters concerning toxic substances:-</b> |                                                         |      |                                                         |                      |                   |               |               |
| 1                                                  | Cadmium (as Cd)                                         | mg/L | IS 3025 (part-41)                                       | 0.003                | No Relaxation     | N.D.          | N.D.          |
| 2                                                  | Cyanide (as CN)                                         | mg/L | IS 3025 (part-27)                                       | 0.05                 | No Relaxation     | N.D.          | N.D.          |
| 3                                                  | Lead (as Pb)                                            | mg/L | IS 3025 (part-47)                                       | 0.01                 | No Relaxation     | N.D.          | N.D.          |
| 4                                                  | Mercury (as Hg)                                         | mg/L | IS 3025 (part-48)                                       | 0.001                | No Relaxation     | N.D.          | N.D.          |
| 5                                                  | Molybdenum (as Mo)                                      | mg/L | IS 3025 (part-2)                                        | 0.07                 | No Relaxation     | N.D.          | N.D.          |
| 6                                                  | Nickel (as Ni)                                          | mg/L | IS 3025 (part-54)                                       | 0.02                 | No Relaxation     | N.D.          | N.D.          |
| 7                                                  | Polychlorinated biphenyls                               | mg/L | ASTM 5175                                               | 0.0005               | No Relaxation     | N.D.          | N.D.          |
| 8                                                  | Polynuclear aromatic hydrocarbons (as PAH)              | mg/L | APHA 6440                                               | 0.0001               | No Relaxation     | N.D.          | N.D.          |
| 9                                                  | Arsenic (as As)                                         | mg/L | IS 3025 (part-37)                                       | 0.01                 | 0.05              | N.D.          | N.D.          |
| 10                                                 | Chromium (as Cr)                                        | mg/L | Annex J of IS:13428                                     | 0.05                 | No Relaxation     | N.D.          | N.D.          |
| <b>11 Trihalomethanes:</b>                         |                                                         |      |                                                         |                      |                   |               |               |
| a)                                                 | Bromoform                                               | mg/L | APHA 6232                                               | 0.1                  | No Relaxation     | N.D.          | N.D.          |
| b)                                                 | Dibromochloro methane                                   | mg/L | APHA 6232                                               | 0.1                  | No Relaxation     | N.D.          | N.D.          |

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REPORT NO.0320

### TEST REPORT

| SR. NO.                        | PARAMETER                                      | UNIT      | METHOD OF TEST       | AS PER IS 10500:2012 |                   | RESULT        |               |
|--------------------------------|------------------------------------------------|-----------|----------------------|----------------------|-------------------|---------------|---------------|
|                                |                                                |           |                      | Acceptable Limit     | Permissible limit | Piezometer 01 | Piezometer 02 |
| d)                             | Chloroform                                     | mg/L      | APHA 6232            | 0.2                  | No Relaxation     | N.D.          | N.D.          |
| <b>D. Pesticides:-</b>         |                                                |           |                      |                      |                   |               |               |
| 1                              | Alpha HCH                                      | µg/l      | USEPA 508            |                      | 0.01              | N.D.          | N.D.          |
| 2                              | Beta HCH                                       | µg/l      | USEPA 508            |                      | 0.04              | N.D.          | N.D.          |
| 3                              | Delta HCH                                      | µg/l      | USEPA 508            |                      | 0.04              | N.D.          | N.D.          |
| 4                              | Alachlor                                       | µg/l      | USEPA 525.2, 507     |                      | 20                | N.D.          | N.D.          |
| 5                              | Aldrin / Dieldrin                              | µg/l      | USEPA 508            |                      | 0.03              | N.D.          | N.D.          |
| 6                              | Atrazine                                       | µg/l      | USEPA 525.2, 8141 A  |                      | 2                 | N.D.          | N.D.          |
| 7                              | Butachlor                                      | µg/l      | USEPA 525.2, 8141 A  |                      | 125               | N.D.          | N.D.          |
| 8                              | Chlorpyrifos                                   | µg/l      | USEPA 525.2, 8141 A  |                      | 30                | N.D.          | N.D.          |
| 9                              | DDT (o,p and p, p-Isomers of DDT, DDE and DDD) | µg/l      | USEPA 508            |                      | 1                 | N.D.          | N.D.          |
| 10                             | Gamma HCH                                      | µg/l      | USEPA 508            |                      | 2                 | N.D.          | N.D.          |
| 11                             | 2,4-Dichlorophenoxy acetic Acid                | µg/l      | USEPA 515.1          |                      | 30                | N.D.          | N.D.          |
| 12                             | Endosulphan (alpha, beta and sulphate)         | µg/l      | USEPA 508            |                      | 0.4               | N.D.          | N.D.          |
| 13                             | Ethion                                         | µg/l      | USEPA 1657 A         |                      | 3                 | N.D.          | N.D.          |
| 14                             | Isoproturon                                    | µg/l      | USEPA 532            |                      | 9                 | N.D.          | N.D.          |
| 15                             | Malathion                                      | µg/l      | USEPA 8141 A         |                      | 190               | N.D.          | N.D.          |
| 16                             | Methyl Parathion                               | µg/l      | USEPA 8141 A         |                      | 0.3               | N.D.          | N.D.          |
| 17                             | Monocrotophos                                  | µg/l      | USEPA 8141 A         |                      | 1                 | N.D.          | N.D.          |
| 18                             | Phorate                                        | µg/l      | USEPA 8141 A         |                      | 2                 | N.D.          | N.D.          |
| <b>E. Microbial Parameters</b> |                                                |           |                      |                      |                   |               |               |
| 1                              | Total Coliform                                 | MPN/100ml | IS:1622:1981:RA:2014 |                      | -                 | Absent        | Absent        |
| 2                              | E. Coli                                        | MPN/100ml | IS:1622:1981:RA:2014 |                      | -                 | Absent        | Absent        |

Note: mg/lit.: milligram per liter, N.D.: Not Detected.

REMARKS: RESULTS ARE AS ABOVE

**Terms & conditions**

- > The use of the report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for only test(s) only.

|                                                                                                                  |                                                                                     |                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>PREPARED BY<br>31/08/2020 |  | For ULTIMATE ENVIROLYTICAL SOLUTIONS<br><br>AUTHORIZED SIGNATORY<br>31/08/2020 |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

-----End of the test report-----





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|                                                                                                                                                                   |                  |                       |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|----------------|
| <b>Name &amp; Address Of The Customer</b><br><b>To,</b><br><b>Jindal Power Limited</b><br><b>P.O. Tamnar,</b><br><b>District: Raigarh</b><br><b>496107 (C.G.)</b> | Report No        | UES/TR/20-21/0321     |                |
|                                                                                                                                                                   | Lab Ref No       | UES/20-21/W/0349-0351 |                |
|                                                                                                                                                                   | Date of Sampling | 26/08/2020            |                |
|                                                                                                                                                                   | Date of Receipt  | 27/08/2020            |                |
|                                                                                                                                                                   | Date of Report   | 31/08/2020            |                |
|                                                                                                                                                                   | Date of analysis | Start:27/08/2020      | End:31/08/2020 |

| SAMPLE DETAILS                        |                                                            |           |          |
|---------------------------------------|------------------------------------------------------------|-----------|----------|
| Customer Sample Id /Sampling Location | 1. Piezometer - 06 (NW Near ash Dyke Reagan Village Side)  | Latitude  | 22.11468 |
|                                       |                                                            | Longitude | 83.46731 |
|                                       | 2. Piezometer - 07 (NE Near ash Dyke village pata village) | Latitude  | 22.13273 |
|                                       |                                                            | Longitude | 83.45694 |
|                                       | 3. Piezometer - 08 (SE Near ash Dyke in front of SBI bank) | Latitude  | 22.11468 |
|                                       |                                                            | Longitude | 83.45507 |
| Customer Ref. No. & Date              | 4400013828, Date: 22/07/2020                               |           |          |
| Sample Type                           | Ground Water                                               |           |          |
| Packing Of Sample                     | Plastic Bottle (5.0 ltr.)<br>Glass Bottle (1.0 ltr.)       |           |          |
| Sample Collected By                   | Laboratory Chemist                                         |           |          |
| Sample Condition At Receipt           | Ok                                                         |           |          |

REPORT NO.0321

| TEST REPORT                                                                         |                              |       |                     |                      |                   |               |               |               |
|-------------------------------------------------------------------------------------|------------------------------|-------|---------------------|----------------------|-------------------|---------------|---------------|---------------|
| SR. NO.                                                                             | PARAMETER                    | UNIT  | METHOD OF TEST      | AS PER IS 10500:2012 |                   | RESULT        |               |               |
|                                                                                     |                              |       |                     | Acceptable Limit     | Permissible limit | Piezometer 06 | Piezometer 07 | Piezometer 08 |
| <b>A. Organoleptic &amp; Physical Parameters</b>                                    |                              |       |                     |                      |                   |               |               |               |
| 1                                                                                   | Colour                       | Hazen | IS:3025:(Part-4)    | 5                    | 15                | <1            | <1            | <1            |
| 2                                                                                   | Odour                        | -     | IS:3025:(part-5)    | Agreeable            | Agreeable         | Agreeable     | Agreeable     | Agreeable     |
| 3                                                                                   | pH Value at 25.2°C           | -     | IS:3025:(Part-11)   | 6.5-8.5              | No Relaxation     | 7.26          | 7.18          | 7.38          |
| 4                                                                                   | Taste                        | -     | IS:3025:(part-8)    | Agreeable            | Agreeable         | Agreeable     | Agreeable     | Agreeable     |
| 5                                                                                   | Turbidity                    | NTU   | IS:3025:(Part-10)   | 1                    | 5                 | 0.68          | 0.86          | 0.94          |
| 6                                                                                   | Total Dissolved Solids       | mg/L  | IS:3025:(Part-16)   | 500                  | 2000              | 89.0          | 129.6         | 52.8          |
| <b>B. General Parameters Concerning Substances undesirable in excessive amounts</b> |                              |       |                     |                      |                   |               |               |               |
| 1                                                                                   | Aluminium (as Al)            | mg/L  | IS:3025:(part-55)   | 0.03                 | 0.2               | N.D.          | N.D.          | N.D.          |
| 2                                                                                   | Ammonia (as total ammonia-N) | mg/L  | IS:3025:(part-34)   | 0.5                  | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 3                                                                                   | Anionic Detergent (as MBAS)  | mg/L  | Annex K of IS:13428 | 0.2                  | 1.0               | N.D.          | N.D.          | N.D.          |

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REPORT NO.0321

### TEST REPORT

| SR. NO. | PARAMETER                                               | UNIT | METHOD OF TEST                                          | AS PER IS 10500:2012 |                   | RESULT        |               |               |
|---------|---------------------------------------------------------|------|---------------------------------------------------------|----------------------|-------------------|---------------|---------------|---------------|
|         |                                                         |      |                                                         | Acceptable Limit     | Permissible limit | Piezometer 06 | Piezometer 07 | Piezometer 08 |
| 5       | Boron (as B)                                            | mg/L | IS 3025: (Part-57)                                      | 0.5                  | 1.0               | N.D.          | N.D.          | N.D.          |
| 6       | Calcium (as Ca)                                         | mg/L | IS 3025: (Part-40)                                      | 75                   | 200               | 20.8          | 18.4          | 8.8           |
| 7       | Chloramines (as Cl <sub>2</sub> )                       | mg/L | IS 3025: (Part-26)                                      | 4.0                  | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 8       | Chloride (as Cl)                                        | mg/L | IS 3025: (Part-32)                                      | 250                  | 1000              | 2.9           | 6.9           | 9.9           |
| 9       | Copper (as Cu)                                          | mg/L | IS 3025(part-42)                                        | 0.05                 | 1.5               | N.D.          | N.D.          | N.D.          |
| 10      | Fluoride (as F)                                         | mg/L | IS 3025(part-60)                                        | 1                    | 1.5               | 0.5           | 0.52          | 0.45          |
| 11      | Free Residual Chlorine                                  | mg/L | IS 3025: (Part-26)                                      | 0.2                  | 1                 | N.D.          | N.D.          | N.D.          |
| 12      | Iron (as Fe)                                            | mg/L | IS 3025(part-53)                                        | 0.3                  | No Relaxation     | 0.04          | 0.02          | 0.08          |
| 13      | Magnesium (as Mg)                                       | mg/L | IS 3025: (Part-46)                                      | 30                   | 100               | 4.6           | 0.9           | 29.2          |
| 14      | Manganese (as Mn)                                       | mg/L | IS 3025(part-59)                                        | 0.1                  | 0.3               | N.D.          | N.D.          | N.D.          |
| 15      | Mineral Oil                                             | mg/L | Clause 6 of IS 3025 (Part-39) Infrared partition method | 0.5                  | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 16      | Nitrate (as NO <sub>3</sub> )                           | mg/L | IS 3025(part-34)                                        | 45                   | No Relaxation     | 2.2           | 2.6           | 2.0           |
| 17      | Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH) | mg/L | IS 3025(part-43)                                        | 0.001                | 0.002             | N.D.          | N.D.          | N.D.          |
| 18      | Selenium (as Se)                                        | mg/L | IS 3025(part-56)                                        | 0.01                 | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 19      | Silver (as Ag)                                          | mg/L | Annex J of IS 13428                                     | 0.1                  | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 20      | Sulphate (as SO <sub>4</sub> )                          | mg/L | IS 3025: (Part-24)                                      | 200                  | 400               | 8.3           | 5.3           | 6.4           |
| 21      | Sulphide (as H <sub>2</sub> S)                          | mg/L | IS 3025: (Part-29)                                      | 0.05                 | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 22      | Total Alkalinity (as CaCO <sub>3</sub> )                | mg/L | IS 3025: (Part-23)                                      | 200                  | 600               | 66.0          | 100.0         | 24.0          |
| 23      | Total Hardness (as CaCO <sub>3</sub> )                  | mg/L | IS 3025: (Part-21)                                      | 200                  | 600               | 40.0          | 50.0          | 44.0          |
| 24      | Zinc (as Zn)                                            | mg/L | IS 3025(part-49)                                        | 5                    | 15                | N.D.          | N.D.          | N.D.          |
| C.      | Parameters concerning toxic substances:-                |      |                                                         |                      |                   |               |               |               |
| 1       | Cadmium (as Cd)                                         | mg/L | IS 3025(part-41)                                        | 0.003                | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 2       | Cyanide (as CN)                                         | mg/L | IS 3025(part-27)                                        | 0.05                 | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 3       | Lead (as Pb)                                            | mg/L | IS 3025(part-47)                                        | 0.01                 | No Relaxation     | N.D.          | N.D.          | N.D.          |



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REPORT NO.0321

### TEST REPORT

| SR. NO. | PARAMETER                                      | UNIT | METHOD OF TEST      | AS PER IS 10500:2012 |                   | RESULT        |               |               |
|---------|------------------------------------------------|------|---------------------|----------------------|-------------------|---------------|---------------|---------------|
|         |                                                |      |                     | Acceptable Limit     | Permissible limit | Piezometer 06 | Piezometer 07 | Piezometer 08 |
| 5       | Molybdenum (as Mo)                             | mg/L | IS 3025(part-2)     | 0.07                 | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 6       | Nickel (as Ni)                                 | mg/L | IS 3025(part-54)    | 0.02                 | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 7       | Polychlorinated biphenyls                      | mg/L | ASTM 5175           | 0.0005               | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 8       | Polynuclear aromatic hydrocarbons (as PAH)     | mg/L | APHA 6440           | 0.0001               | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 9       | Arsenic (as As)                                | mg/L | IS 3025(part-37)    | 0.01                 | 0.05              | N.D.          | N.D.          | N.D.          |
| 10      | Chromium (as Cr)                               | mg/L | Annex J of IS:13428 | 0.05                 | No Relaxation     | N.D.          | N.D.          | N.D.          |
| 11      | Trihalomethanes:                               |      |                     |                      |                   |               |               |               |
| a)      | Bromoform                                      | mg/L | APHA 6232           | 0.1                  | No Relaxation     | N.D.          | N.D.          | N.D.          |
| b)      | Dibromochloromethane                           | mg/L | APHA 6232           | 0.1                  | No Relaxation     | N.D.          | N.D.          | N.D.          |
| c)      | Bromodichloromethane                           | mg/L | APHA 6232           | 0.06                 | No Relaxation     | N.D.          | N.D.          | N.D.          |
| d)      | Chloroform                                     | mg/L | APHA 6232           | 0.2                  | No Relaxation     | N.D.          | N.D.          | N.D.          |
| D.      | Pesticides:-                                   |      |                     |                      |                   |               |               |               |
| 1       | Alpha HCH                                      | µg/l | USEPA 508           |                      | 0.01              | N.D.          | N.D.          | N.D.          |
| 2       | Beta HCH                                       | µg/l | USEPA 508           |                      | 0.04              | N.D.          | N.D.          | N.D.          |
| 3       | Delta HCH                                      | µg/l | USEPA 508           |                      | 0.04              | N.D.          | N.D.          | N.D.          |
| 4       | Alachlor                                       | µg/l | USEPA 525.2, 507    |                      | 20                | N.D.          | N.D.          | N.D.          |
| 5       | Aldrin / Dieldrin                              | µg/l | USEPA 508           |                      | 0.03              | N.D.          | N.D.          | N.D.          |
| 6       | Atrazine                                       | µg/l | USEPA 525.2, 8141 A |                      | 2                 | N.D.          | N.D.          | N.D.          |
| 7       | Butachlor                                      | µg/l | USEPA 525.2, 8141 A |                      | 125               | N.D.          | N.D.          | N.D.          |
| 8       | Chlorpyrifos                                   | µg/l | USEPA 525.2, 8141 A |                      | 30                | N.D.          | N.D.          | N.D.          |
| 9       | DDT (o,p and p, p-Isomers of DDT, DDE and DDD) | µg/l | USEPA 508           |                      | 1                 | N.D.          | N.D.          | N.D.          |
| 10      | Gamma HCH                                      | µg/l | USEPA 508           |                      | 2                 | N.D.          | N.D.          | N.D.          |
| 11      | 2,4-Dichlorophenoxyacetic Acid Endosulphan     | µg/l | USEPA 515.1         |                      | 30                | N.D.          | N.D.          | N.D.          |

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REPORT NO.0321

### TEST REPORT

| SR. NO.                        | PARAMETER        | UNIT      | METHOD OF TEST       | AS PER IS 10500:2012 |                   | RESULT        |               |               |
|--------------------------------|------------------|-----------|----------------------|----------------------|-------------------|---------------|---------------|---------------|
|                                |                  |           |                      | Acceptable Limit     | Permissible limit | Piezometer 06 | Piezometer 07 | Piezometer 08 |
| 13                             | Ethion           | µg/l      | USEPA 1657 A         |                      | 3                 | N.D.          | N.D.          | N.D.          |
| 14                             | Isoproturon      | µg/l      | USEPA 532            |                      | 9                 | N.D.          | N.D.          | N.D.          |
| 15                             | Malathion        | µg/l      | USEPA 8141 A         |                      | 190               | N.D.          | N.D.          | N.D.          |
| 16                             | Methyl Parathion | µg/l      | USEPA 8141 A         |                      | 0.3               | N.D.          | N.D.          | N.D.          |
| 17                             | Monocrotophos    | µg/l      | USEPA 8141 A         |                      | 1                 | N.D.          | N.D.          | N.D.          |
| 18                             | Phorate          | µg/l      | USEPA 8141 A         |                      | 2                 | N.D.          | N.D.          | N.D.          |
| <b>E. Microbial Parameters</b> |                  |           |                      |                      |                   |               |               |               |
| 1                              | Total Coliform   | MPN/100ml | IS:1622:1981:RA:2014 |                      | -                 | Absent        | Absent        | Absent        |
| 2                              | E. Coli          | MPN/100ml | IS:1622:1981:RA:2014 |                      | -                 | Absent        | Absent        | Absent        |

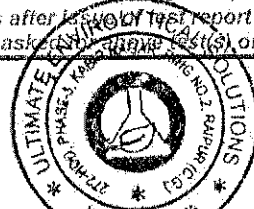
Note: mg/lit.: milligram per liter, N.D.: Not Detected.

**REMARKS: RESULTS ARE AS ABOVE**

**Terms & conditions**

- The use of the report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- This is for information as the party has asked for (2) only.

*Shukro*  
31/08/2020  
PREPARED BY



For ULTIMATE ENVIROLYTICAL SOLUTIONS

*Shukro*  
31/08/2020  
AUTHORIZED SIGNATORY

-----End of the test report-----



**Ultimate**  
ENVIROLYTICAL SOLUTIONS

HDD-272, Phase III - Near JP Chowk  
Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099  
Ph : 0771 - 4027777 | Email : ultimatenviro@gmail.com

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|                                                                                                                                                                       |                  |                       |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|----------------|
| <b>Name &amp; Address Of The Customer</b><br><br><b>To,</b><br><b>Jindal Power Limited</b><br><b>P.O. Tamnar,</b><br><b>District: Raigarh</b><br><b>496107 (C.G.)</b> | Report No        | UES/TR/20-21/0322     |                |
|                                                                                                                                                                       | Lab Ref No       | UES/20-21/W/0352-0354 |                |
|                                                                                                                                                                       | Date of Sampling | 26/08/2020            |                |
|                                                                                                                                                                       | Date of Receipt  | 27/08/2020            |                |
|                                                                                                                                                                       | Date of Report   | 31/08/2020            |                |
|                                                                                                                                                                       | Date of analysis | Start:27/08/2020      | END:31/08/2020 |

**SAMPLE DETAILS**

|                                       |                                                      |           |          |
|---------------------------------------|------------------------------------------------------|-----------|----------|
| Customer Sample Id /Sampling Location | 1. Pata Village                                      | Latitude  | 22.13781 |
|                                       |                                                      | Longitude | 83.46132 |
|                                       | 2. Kunjemura Village                                 | Latitude  | 22.13519 |
|                                       |                                                      | Longitude | 83.46135 |
|                                       | 3. Tamnar Village                                    | Latitude  | 22.07879 |
|                                       |                                                      | Longitude | 83.42356 |
| Customer Ref. No. & Date              | 4400013828, Date: 22/07/2020                         |           |          |
| Sample Type                           | Ground Water                                         |           |          |
| Packing Of Sample                     | Plastic Bottle (5.0 ltr.)<br>Glass Bottle (1.0 ltr.) |           |          |
| Sample Collected By                   | Laboratory Chemist                                   |           |          |
| Sample Condition At Receipt           | Ok                                                   |           |          |

REPORT NO. 0322

**TEST REPORT**

| SR. NO.                                                                             | PARAMETER                    | UNIT  | METHOD OF TEST      | AS PER IS 10500:2012 |                   | RESULT       |                   |                |
|-------------------------------------------------------------------------------------|------------------------------|-------|---------------------|----------------------|-------------------|--------------|-------------------|----------------|
|                                                                                     |                              |       |                     | Acceptable Limit     | Permissible limit | Pata Village | Kunjemura Village | Tamnar Village |
| <b>A. Organoleptic &amp; Physical Parameters</b>                                    |                              |       |                     |                      |                   |              |                   |                |
| 1                                                                                   | Colour                       | Hazen | IS:3025:(Part-4)    | 5                    | 15                | <1           | <1                | <1             |
| 2                                                                                   | Odour                        | -     | IS 3025(part-5)     | Agreeable            | Agreeable         | Agreeable    | Agreeable         | Agreeable      |
| 3                                                                                   | pH Value at 25.2°C           | -     | IS:3025:(Part-11)   | 6.5-8.5              | No Relaxation     | 7.27         | 7.54              | 7.74           |
| 4                                                                                   | Taste                        | -     | IS 3025(part-8)     | Agreeable            | Agreeable         | Agreeable    | Agreeable         | Agreeable      |
| 5                                                                                   | Turbidity                    | NTU   | IS 3025:(Part-10)   | 1                    | 5                 | 0.74         | 0.86              | 0.68           |
| 6                                                                                   | Total Dissolved Solids       | mg/L  | IS:3025:(Part-16)   | 500                  | 2000              | 866.1        | 257.7             | 50.3           |
| <b>B. General Parameters Concerning Substances undesirable in excessive amounts</b> |                              |       |                     |                      |                   |              |                   |                |
| 1                                                                                   | Aluminium (as Al)            | mg/L  | IS 3025(part-55)    | 0.03                 | 0.2               | N.D.         | N.D.              | N.D.           |
| 2                                                                                   | Ammonia (as total ammonia-N) | mg/L  | IS 3025(part-34)    | 0.5                  | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 3                                                                                   | Anionic Detergent (as MBAS)  | mg/L  | Annex K of IS:13428 | 0.2                  | 1.0               | N.D.         | N.D.              | N.D.           |
|                                                                                     |                              |       | Annex F of          | -                    | No                |              |                   |                |

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REPORT NO. 0322

## TEST REPORT

| SR. NO. | PARAMETER                                               | UNIT | METHOD OF TEST                                          | AS PER IS: 10500:2012 |                   | RESULT       |                   |                |
|---------|---------------------------------------------------------|------|---------------------------------------------------------|-----------------------|-------------------|--------------|-------------------|----------------|
|         |                                                         |      |                                                         | Acceptable Limit      | Permissible limit | Pata Village | Kunjemura Village | Tamnar Village |
| 5       | Boron (as B)                                            | mg/L | IS 3025: (Part-57)                                      | 0.5                   | 1.0               | N.D.         | N.D.              | N.D.           |
| 6       | Calcium (as Ca)                                         | mg/L | IS 3025: (Part-40)                                      | 75                    | 200               | 144.2        | 26.4              | 8.8            |
| 7       | Chloramines (as Cl <sub>2</sub> )                       | mg/L | IS 3025: (Part-26)                                      | 4.0                   | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 8       | Chloride (as Cl)                                        | mg/L | IS 3025: (Part-32)                                      | 250                   | 1000              | 197.9        | 26.9              | 10.9           |
| 9       | Copper (as Cu)                                          | mg/L | IS 3025 (part-42)                                       | 0.05                  | 1.5               | N.D.         | N.D.              | N.D.           |
| 10      | Fluoride (as F)                                         | mg/L | IS 3025 (part-60)                                       | 1                     | 1.5               | 0.14         | 0.61              | 0.48           |
| 11      | Free Residual Chlorine                                  | mg/L | IS 3025: (Part-26)                                      | 0.2                   | 1                 | N.D.         | N.D.              | N.D.           |
| 12      | Iron (as Fe)                                            | mg/L | IS 3025 (part-53)                                       | 0.3                   | No Relaxation     | 0.18         | 0.08              | 0.16           |
| 13      | Magnesium (as Mg)                                       | mg/L | IS 3025: (Part-46)                                      | 30                    | 100               | 27.2         | 7.2               | 35.7           |
| 14      | Manganese (as Mn)                                       | mg/L | IS 3025 (part-59)                                       | 0.1                   | 0.3               | N.D.         | N.D.              | N.D.           |
| 15      | Mineral Oil                                             | mg/L | Clause 6 of IS 3025 (Part-39) Infrared partition method | 0.5                   | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 16      | Nitrate (as NO <sub>3</sub> )                           | mg/L | IS 3025 (part-34)                                       | 45                    | No Relaxation     | 1.4          | 2.0               | 1.4            |
| 17      | Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH) | mg/L | IS 3025 (part-43)                                       | 0.001                 | 0.002             | N.D.         | N.D.              | N.D.           |
| 18      | Selenium (as Se)                                        | mg/L | IS 3025 (part-56)                                       | 0.01                  | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 19      | Silver (as Ag)                                          | mg/L | Annex J of IS 13428                                     | 0.1                   | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 20      | Sulphate (as SO <sub>4</sub> )                          | mg/L | IS 3025: (Part-24)                                      | 200                   | 400               | 22.8         | 4.8               | 5.5            |
| 21      | Sulphide (as H <sub>2</sub> S)                          | mg/L | IS 3025: (Part-29)                                      | 0.05                  | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 22      | Total Alkalinity (as CaCO <sub>3</sub> )                | mg/L | IS 3025: (Part-23)                                      | 200                   | 600               | 132.0        | 166.0             | 26.0           |
| 23      | Total Hardness (as CaCO <sub>3</sub> )                  | mg/L | IS 3025: (Part-21)                                      | 200                   | 600               | 472.0        | 96.0              | 27.0           |
| 24      | Zinc (as Zn)                                            | mg/L | IS 3025 (part-49)                                       | 5                     | 15                | N.D.         | N.D.              | N.D.           |
| C.      | Parameters concerning toxic substances:-                |      |                                                         |                       |                   |              |                   |                |
| 1       | Cadmium (as Cd)                                         | mg/L | IS 3025 (part-41)                                       | 0.003                 | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 2       | Cyanide (as CN)                                         | mg/L | IS 3025 (part-27)                                       | 0.05                  | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 3       | Lead (as Pb)                                            | mg/L | IS 3025 (part-49)                                       | 0.01                  | No Relaxation     | N.D.         | N.D.              | N.D.           |

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REPORT NO. 0322

### TEST REPORT

| SR. NO. | PARAMETER                                      | UNIT | METHOD OF TEST      | AS PER IS 10500:2012 |                   | RESULT       |                   |                |
|---------|------------------------------------------------|------|---------------------|----------------------|-------------------|--------------|-------------------|----------------|
|         |                                                |      |                     | Acceptable Limit     | Permissible limit | Pata Village | Kunjemura Village | Tamnar Village |
| 4       | Mercury (as Hg)                                | mg/L | IS 3025(part-48)    | 0.001                | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 5       | Molybdenum (as Mo)                             | mg/L | IS 3025(part-2)     | 0.07                 | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 6       | Nickel (as Ni)                                 | mg/L | IS 3025(part-54)    | 0.02                 | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 7       | Polychlorinated biphenyls                      | mg/L | ASTM 5175           | 0.0005               | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 8       | Polynuclear aromatic hydrocarbons (as PAH)     | mg/L | APHA 6440           | 0.0001               | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 9       | Arsenic (as As)                                | mg/L | IS 3025(part-37)    | 0.01                 | 0.05              | N.D.         | N.D.              | N.D.           |
| 10      | Chromium (as Cr)                               | mg/L | Annex J of IS:13428 | 0.05                 | No Relaxation     | N.D.         | N.D.              | N.D.           |
| 11      | Trihalomethanes:                               |      |                     |                      |                   |              |                   |                |
| a)      | Bromoform                                      | mg/L | APHA 6232           | 0.1                  | No Relaxation     | N.D.         | N.D.              | N.D.           |
| b)      | Dibromochloromethane                           | mg/L | APHA 6232           | 0.1                  | No Relaxation     | N.D.         | N.D.              | N.D.           |
| c)      | Bromodichloromethane                           | mg/L | APHA 6232           | 0.06                 | No Relaxation     | N.D.         | N.D.              | N.D.           |
| d)      | Chloroform                                     | mg/L | APHA 6232           | 0.2                  | No Relaxation     | N.D.         | N.D.              | N.D.           |
| D.      | Pesticides:-                                   |      |                     |                      |                   |              |                   |                |
| 1       | Alpha HCH                                      | µg/l | USEPA 508           |                      | 0.01              | N.D.         | N.D.              | N.D.           |
| 2       | Beta HCH                                       | µg/l | USEPA 508           |                      | 0.04              | N.D.         | N.D.              | N.D.           |
| 3       | Delta HCH                                      | µg/l | USEPA 508           |                      | 0.04              | N.D.         | N.D.              | N.D.           |
| 4       | Alachlor                                       | µg/l | USEPA 525.2, 507    |                      | 20                | N.D.         | N.D.              | N.D.           |
| 5       | Aldrin / Dieldrin                              | µg/l | USEPA 508           |                      | 0.03              | N.D.         | N.D.              | N.D.           |
| 6       | Atrazine                                       | µg/l | USEPA 525.2, 8141 A |                      | 2                 | N.D.         | N.D.              | N.D.           |
| 7       | Butachlor                                      | µg/l | USEPA 525.2, 8141 A |                      | 125               | N.D.         | N.D.              | N.D.           |
| 8       | Chlorpyrifos                                   | µg/l | USEPA 525.2, 8141 A |                      | 30                | N.D.         | N.D.              | N.D.           |
| 9       | DDT (o,p and p, p-Isomers of DDT, DDE and DDD) | µg/l | USEPA 508           |                      | 1                 | N.D.         | N.D.              | N.D.           |
| 10      | Gamma HCH                                      | µg/l | USEPA 508           |                      | 2                 | N.D.         | N.D.              | N.D.           |
| 11      | 2,4-Dichlorophenox                             | µg/l | USEPA 515.1         |                      | 30                | N.D.         | N.D.              | N.D.           |

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REPORT NO. 0322

### TEST REPORT

| SR. NO.                        | PARAMETER                              | UNIT      | METHOD OF TEST         | AS PER IS 10500:2012 |                   | RESULT       |                   |                |
|--------------------------------|----------------------------------------|-----------|------------------------|----------------------|-------------------|--------------|-------------------|----------------|
|                                |                                        |           |                        | Acceptable Limit     | Permissible limit | Pata Village | Kunjemura Village | Tannar Village |
| 12                             | Endosulphan (alpha, beta and sulphate) | µg/l      | USEPA 508              |                      | 0.4               | N.D.         | N.D.              | N.D.           |
| 13                             | Ethion                                 | µg/l      | USEPA 1657 A           |                      | 3                 | N.D.         | N.D.              | N.D.           |
| 14                             | Isoproturon                            | µg/l      | USEPA 532              |                      | 9                 | N.D.         | N.D.              | N.D.           |
| 15                             | Malathion                              | µg/l      | USEPA 8141 A           |                      | 190               | N.D.         | N.D.              | N.D.           |
| 16                             | Methyl Parathion                       | µg/l      | USEPA 8141 A           |                      | 0.3               | N.D.         | N.D.              | N.D.           |
| 17                             | Monocrotophos                          | µg/l      | USEPA 8141 A           |                      | 1                 | N.D.         | N.D.              | N.D.           |
| 18                             | Phorate                                | µg/l      | USEPA 8141 A           |                      | 2                 | N.D.         | N.D.              | N.D.           |
| <b>E. Microbial Parameters</b> |                                        |           |                        |                      |                   |              |                   |                |
| 1                              | Total Coliform                         | MPN/100ml | IS:1622:1981:RA :2014  |                      | -                 | Absent       | Absent            | Absent         |
| 2                              | E. Coli                                | MPN/100ml | IS:1622:1981:RA : 2014 |                      | -                 | Absent       | Absent            | Absent         |

Note: mg/lit.: milligram per liter, N.D.: Not Detected.

**REMARKS: RESULTS ARE AS ABOVE**

**Terms & conditions**

- The above analysis report refers to the particular sample received at our end and the use of the report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- This is for information as the party has asked for (C/D/O) test(s) only.

PREPARED BY *Thakur*  
31/08/2020



For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-----End of the test report-----





HDD-272, Phase III - Near JP Chowk  
 Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099  
 Ph : 0771 - 4027777 | Email : ultimatenviro@gmail.com

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|                                                                                                                                                                   |                  |                       |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|-----------------|
| <b>Name &amp; Address Of The Customer</b><br><b>To,</b><br><b>Jindal Power Limited</b><br><b>P.O. Tamnar,</b><br><b>District: Raigarh</b><br><b>496107 (C.G.)</b> | Report No        | UES/TR/20-21/0323     |                 |
|                                                                                                                                                                   | Lab Ref No       | UES/20-21/W/0355-0356 |                 |
|                                                                                                                                                                   | Date of Sampling | 26/08/2020            |                 |
|                                                                                                                                                                   | Date of Receipt  | 27/08/2020            |                 |
|                                                                                                                                                                   | Date of Report   | 31/08/2020            |                 |
|                                                                                                                                                                   | Date of analysis | Start:27/08/2020      | End: 31/08/2020 |

**SAMPLE DETAILS**

|                                       |                                                      |           |          |
|---------------------------------------|------------------------------------------------------|-----------|----------|
| Customer Sample Id /Sampling Location | 1. Kelo River Upstream<br>2. Kelo River Downstream   | Latitude  | 22.69700 |
|                                       |                                                      | Longitude | 83.42118 |
| Customer Ref. No. & Date              | 4400013828, Date: 22/07/2020                         |           |          |
| Sample Type                           | Surface Water                                        |           |          |
| Packing Of Sample                     | Plastic Bottle (5.0 ltr.)<br>Glass Bottle (1.0 ltr.) |           |          |
| Sample Collected By                   | Laboratory Chemist                                   |           |          |
| Sample Condition At Receipt           | Ok                                                   |           |          |

REPORT NO.0323

**TEST REPORT**

| SR. NO.                                                                             | PARAMETER                    | UNIT   | METHOD OF TEST      | AS PER IS 10500:2012 |                   | RESULT              |                        |
|-------------------------------------------------------------------------------------|------------------------------|--------|---------------------|----------------------|-------------------|---------------------|------------------------|
|                                                                                     |                              |        |                     | Acceptable Limit     | Permissible limit | Kelo River Upstream | Kelo River Down stream |
| <b>A. Organoleptic &amp; Physical Parameters</b>                                    |                              |        |                     |                      |                   |                     |                        |
| 1                                                                                   | Colour                       | Haze n | IS:3025: (Part-4)   | 5                    | 15                | 5.8                 | 10.5                   |
| 2                                                                                   | Odour                        | -      | IS:3025: (part-5)   | Agreeable            | Agreeable         | Agreeabl e          | Agreeabl e             |
| 3                                                                                   | pH Value at 25.2°C           | -      | IS:3025: (Part-11)  | 6.5-8.5              | No Relaxation     | 7.87                | 7.30                   |
| 4                                                                                   | Taste                        | -      | IS 3025 (part-8)    | Agreeable            | Agreeable         | Agreeabl e          | Agreeabl e             |
| 5                                                                                   | Turbidity                    | NTU    | IS 3025: (Part-10)  | 1                    | 5                 | 68.4                | 51.93                  |
| 6                                                                                   | Total Dissolved Solids       | mg/L   | IS:3025: (Part-16)  | 500                  | 2000              | 20.3                | 114.3                  |
| <b>B. General Parameters Concerning Substances undesirable in excessive amounts</b> |                              |        |                     |                      |                   |                     |                        |
| 1                                                                                   | Aluminium (as Al)            | mg/L   | IS 3025(part-55)    | 0.03                 | 0.2               | N.D.                | N.D.                   |
| 2                                                                                   | Ammonia (as total ammonia-N) | mg/L   | IS 3025(part-34)    | 0.5                  | No Relaxation     | N.D.                | N.D.                   |
| 3                                                                                   | Anionic Detergent (as MBAS)  | mg/L   | Annex K of IS:13428 | 0.2                  | 1.0               | N.D.                | N.D.                   |
| 4                                                                                   | Barium (as Ba)               | mg/L   | Annex F of IS:13428 | 0.7                  | No Relaxation     | N.D.                | N.D.                   |
| 5                                                                                   | Boron (as B)                 | mg/L   | IS 3025: (Part-57)  | 0.5                  | 1.0               | N.D.                | N.D.                   |
| 6                                                                                   | Calcium (as                  | mg/L   | IS 3025: (Part-40)  | 75                   | 200               | 5.6                 | 17.6                   |

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REPORT NO.0323

### TEST REPORT

| SR. NO.                                            | PARAMETER                                               | UNIT | METHOD OF TEST                                             | AS PER IS 10500:2012 |                   | RESULT              |                        |
|----------------------------------------------------|---------------------------------------------------------|------|------------------------------------------------------------|----------------------|-------------------|---------------------|------------------------|
|                                                    |                                                         |      |                                                            | Acceptable Limit     | Permissible limit | Kelo River Upstream | Kelo River Down stream |
| 7                                                  | Chloramines (as Cl <sub>2</sub> )                       | mg/L | IS 3025: (Part-26)                                         | 4.0                  | No Relaxation     | N.D.                | N.D.                   |
| 8                                                  | Chloride (as Cl)                                        | mg/L | IS 3025: (Part-32)                                         | 250                  | 1000              | 9.9                 | 7.9                    |
| 9                                                  | Copper (as Cu)                                          | mg/L | IS 3025(part-42)                                           | 0.05                 | 1.5               | N.D.                | N.D.                   |
| 10                                                 | Fluoride (as F)                                         | mg/L | IS 3025(part-60)                                           | 1                    | 1.5               | 0.18                | 0.69                   |
| 11                                                 | Free Residual Chlorine                                  | mg/L | IS 3025: (Part-26)                                         | 0.2                  | 1                 | N.D.                | N.D.                   |
| 12                                                 | Iron (as Fe)                                            | mg/L | IS 3025(part-53)                                           | 0.3                  | No Relaxation     | 0.28                | 0.12                   |
| 13                                                 | Magnesium (as Mg)                                       | mg/L | IS 3025: (Part-46)                                         | 30                   | 100               | 5.3                 | 7.8                    |
| 14                                                 | Manganese (as Mn)                                       | mg/L | IS 3025(part-59)                                           | 0.1                  | 0.3               | N.D.                | N.D.                   |
| 15                                                 | Mineral Oil                                             | mg/L | Clause 6 of IS 3025 (Part-39)<br>Infrared partition method | 0.5                  | No Relaxation     | N.D.                | N.D.                   |
| 16                                                 | Nitrate (as NO <sub>3</sub> )                           | mg/L | IS 3025(part-34)                                           | 45                   | No Relaxation     | 8.73                | 1.22                   |
| 17                                                 | Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH) | mg/L | IS 3025(part-43)                                           | 0.001                | 0.002             | N.D.                | N.D.                   |
| 18                                                 | Selenium (as Se)                                        | mg/L | IS 3025(part-56)                                           | 0.01                 | No Relaxation     | N.D.                | N.D.                   |
| 19                                                 | Silver (as Ag)                                          | mg/L | Annex J of IS 13428                                        | 0.1                  | No Relaxation     | N.D.                | N.D.                   |
| 20                                                 | Sulphate (as SO <sub>4</sub> )                          | mg/L | IS 3025: (Part-24)                                         | 200                  | 400               | 18.8                | 28.6                   |
| 21                                                 | Sulphide (as H <sub>2</sub> S)                          | mg/L | IS 3025: (Part-29)                                         | 0.05                 | No Relaxation     | N.D.                | N.D.                   |
| 22                                                 | Total Alkalinity (as CaCO <sub>3</sub> )                | mg/L | IS 3025: (Part-23)                                         | 200                  | 600               | 20.0                | 42.0                   |
| 23                                                 | Total Hardness (as CaCO <sub>3</sub> )                  | mg/L | IS 3025: (Part-21)                                         | 200                  | 600               | 36.0                | 44.0                   |
| 24                                                 | Zinc (as Zn)                                            | mg/L | IS 3025(part-49)                                           | 5                    | 15                | N.D.                | N.D.                   |
| <b>C. Parameters concerning toxic substances:-</b> |                                                         |      |                                                            |                      |                   |                     |                        |
| 1                                                  | Cadmium (as Cd)                                         | mg/L | IS 3025(part-41)                                           | 0.003                | No Relaxation     | N.D.                | N.D.                   |
| 2                                                  | Cyanide (as CN)                                         | mg/L | IS 3025(part-27)                                           | 0.05                 | No Relaxation     | N.D.                | N.D.                   |
| 3                                                  | Lead (as Pb)                                            | mg/L | IS 3025(part-47)                                           | 0.01                 | No Relaxation     | N.D.                | N.D.                   |
| 4                                                  | Mercury (as Hg)                                         | mg/L | IS 3025(part-48)                                           | 0.001                | No Relaxation     | N.D.                | N.D.                   |
| 5                                                  | Molybdenum (as Mo)                                      | mg/L | IS 3025(part-20)                                           | 0.07                 | No Relaxation     | N.D.                | N.D.                   |



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

REPORT NO.0323

**TEST REPORT**

| SR. NO. | PARAMETER                                      | UNIT | METHOD OF TEST      | AS PER IS 10500:2012 |                   | RESULT              |                        |
|---------|------------------------------------------------|------|---------------------|----------------------|-------------------|---------------------|------------------------|
|         |                                                |      |                     | Acceptable Limit     | Permissible limit | Kelo River Upstream | Kelo River Down stream |
| 6       | Nickel (as Ni)                                 | mg/L | IS 3025 (part-54)   | 0.02                 | No Relaxation     | N.D.                | N.D.                   |
| 7       | Polychlorinated biphenyls                      | mg/L | ASTM 5175           | 0.0005               | No Relaxation     | N.D.                | N.D.                   |
| 8       | Polynuclear aromatic hydrocarbons (as PAH)     | mg/L | APHA 6440           | 0.0001               | No Relaxation     | N.D.                | N.D.                   |
| 9       | Arsenic (as As)                                | mg/L | IS 3025 (part-37)   | 0.01                 | 0.05              | N.D.                | N.D.                   |
| 10      | Chromium (as Cr)                               | mg/L | Annex J of IS:13428 | 0.05                 | No Relaxation     | N.D.                | N.D.                   |
| 11      | Trihalomethanes:                               |      |                     |                      |                   |                     |                        |
| a)      | Bromoform                                      | mg/L | APHA 6232           | 0.1                  | No Relaxation     | N.D.                | N.D.                   |
| b)      | Dibromochloromethane                           | mg/L | APHA 6232           | 0.1                  | No Relaxation     | N.D.                | N.D.                   |
| c)      | Bromodichloromethane                           | mg/L | APHA 6232           | 0.06                 | No Relaxation     | N.D.                | N.D.                   |
| d)      | Chloroform                                     | mg/L | APHA 6232           | 0.2                  | No Relaxation     | N.D.                | N.D.                   |
| D.      | Pesticides:-                                   |      |                     |                      |                   |                     |                        |
| 1       | Alpha HCH                                      | µg/l | USEPA 508           | 0.01                 |                   | N.D.                | N.D.                   |
| 2       | Beta HCH                                       | µg/l | USEPA 508           | 0.04                 |                   | N.D.                | N.D.                   |
| 3       | Delta HCH                                      | µg/l | USEPA 508           | 0.04                 |                   | N.D.                | N.D.                   |
| 4       | Alachlor                                       | µg/l | USEPA 525.2, 507    | 20                   |                   | N.D.                | N.D.                   |
| 5       | Aldrin / Dieldrin                              | µg/l | USEPA 508           | 0.03                 |                   | N.D.                | N.D.                   |
| 6       | Atrazine                                       | µg/l | USEPA 525.2, 8141 A | 2                    |                   | N.D.                | N.D.                   |
| 7       | Butachlor                                      | µg/l | USEPA 525.2, 8141 A | 125                  |                   | N.D.                | N.D.                   |
| 8       | Chlorpyrifos                                   | µg/l | USEPA 525.2, 8141 A | 30                   |                   | N.D.                | N.D.                   |
| 9       | DDT (o,p and p, p-Isomers of DDT, DDE and DDD) | µg/l | USEPA 508           | 1                    |                   | N.D.                | N.D.                   |
| 10      | Gamma HCH                                      | µg/l | USEPA 508           | 2                    |                   | N.D.                | N.D.                   |
| 11      | 2,4-Dichlorophenoxyacetic Acid                 | µg/l | USEPA 515.1         | 30                   |                   | N.D.                | N.D.                   |
| 12      | Endosulphan (alpha, beta)                      | µg/l | USEPA 508           | 0.4                  |                   | N.D.                | N.D.                   |



**Ultimate**  
ENVIROLYTICAL SOLUTIONS

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Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

REPORT NO.0323

**TEST REPORT**

| SR. NO.                        | PARAMETER        | UNIT          | METHOD OF TEST           | AS PER IS 10500:2012 |                   | RESULT              |                        |
|--------------------------------|------------------|---------------|--------------------------|----------------------|-------------------|---------------------|------------------------|
|                                |                  |               |                          | Acceptable Limit     | Permissible limit | Kelo River Upstream | Kelo River Down stream |
| 13                             | Ethion           | µg/l          | USEPA 1657 A             |                      | 3                 | N.D.                | N.D.                   |
| 14                             | Isoproturon      | µg/l          | USEPA 532                |                      | 9                 | N.D.                | N.D.                   |
| 15                             | Malathion        | µg/l          | USEPA 8141 A             |                      | 190               | N.D.                | N.D.                   |
| 16                             | Methyl Parathion | µg/l          | USEPA 8141 A             |                      | 0.3               | N.D.                | N.D.                   |
| 17                             | Monocrotophos    | µg/l          | USEPA 8141 A             |                      | 1                 | N.D.                | N.D.                   |
| 18                             | Phorate          | µg/l          | USEPA 8141 A             |                      | 2                 | N.D.                | N.D.                   |
| <b>E. Microbial Parameters</b> |                  |               |                          |                      |                   |                     |                        |
| 1                              | Total Coliform   | MPN/100m<br>1 | IS:1622:1981:RA:2<br>014 |                      | -                 | 17.0                | 31.0                   |
| 2                              | E. Coli          | MPN/100m<br>1 | IS:1622:1981:RA:<br>2014 |                      | -                 | 9.0                 | 20.0                   |

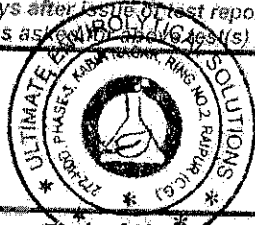
Note: mg/lit.: milligram per liter, N.D.: Not Detected.

**REMARKS: RESULTS ARE AS ABOVE**

**Terms & conditions**

- > The above analysis report refers to the particular sample received at our end and the use of the report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for analysis only.

PREPARED BY *Thakur*  
31/08/2020



For ULTIMATE ENVIROLYTICAL SOLUTIONS

*Thakur*  
31/08/2020  
AUTHORIZED SIGNATORY

-----End of the test report-----



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NABCONS / ZO / /P-1550,1558/ 2015-16  
23 September, 2015


M/s Jindal Power Limited  
CSR Department  
Tamnar (PO)  
District Raigarh  
496107  
Chhattisgarh

Dear Sir

**Study on Community Satisfaction Index for Jindal Power Ltd, Tamnar- Final Report**

We are pleased to send 04 copies of the final report of the Study on Community Satisfaction Index for Jindal Power Ltd, Tamnar for your record. It was a pleasure to be associated with you for the study and we do hope that this association will continue in the future as well.

Yours faithfully

  
(Vivek K Sinha)  
Vice President

Encl: as above

**WISDOM BEYOND BUSINESS**

संस्था: नंबर: 24, ग्रेड ब्लॉक, टी.ए. नॅबार्ड कॉम्प्लेक्स, बंदरा (ई), मुंबई - 400 051.

संस्था: नंबर: 24, ग्रेड ब्लॉक, टी.ए. नॅबार्ड कॉम्प्लेक्स, बंदरा (ई), मुंबई - 400 051

संस्था: नंबर: 24, ग्रेड ब्लॉक, टी.ए. नॅबार्ड कॉम्प्लेक्स, बंदरा (ई), मुंबई - 400 051

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF APRIL, 2020

| Date                        | Location-1       |                   |                 |                 | Location-2    |                  |                   |                 | Location-3                               |      |                  |                   | Location-4      |                 |      |                  |                   |                 |                 |      |
|-----------------------------|------------------|-------------------|-----------------|-----------------|---------------|------------------|-------------------|-----------------|------------------------------------------|------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|------|
|                             | New Switch Yard  |                   |                 |                 | Near Hostel 5 |                  |                   |                 | Savitrinagar Colony (Tehlrampur village) |      |                  |                   | Tamnar village  |                 |      |                  |                   |                 |                 |      |
| Distance (KM) (w.r.t stack) | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO            | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub>                          | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |
|                             | 0.2              |                   |                 |                 | 0.5           |                  |                   |                 | 5.0                                      |      |                  |                   | 3.0             |                 |      |                  |                   |                 |                 |      |
| Direction (w.r.t stack)     | NW               |                   |                 |                 | ESE           |                  |                   |                 | ENE                                      |      |                  |                   | S               |                 |      |                  |                   |                 |                 |      |
| 02.04.2020                  | 65.2             | 24.6              | 14.7            | 21.2            | 0.52          | 75.3             | 26.9              | 10.8            | 29.7                                     | 0.53 | 71.6             | 23.5              | 11.2            | 22.1            | 0.32 | 62.1             | 21.2              | 10.7            | 26.1            | 0.65 |
| 06.04.2020                  | 67.8             | 21.7              | 13.8            | 21.9            | 0.56          | 64.5             | 27.9              | 8.5             | 28.2                                     | 0.62 | 65.1             | 21.6              | 10.9            | 22.6            | 0.36 | 60.7             | 24.1              | 8.2             | 27.5            | 0.69 |
| 09.04.2020                  | 37.9             | 9.2               | 9.4             | 19.8            | 0.41          | 54.5             | 18.8              | 5.3             | 27.7                                     | 0.58 | 39.7             | 10.1              | 10.4            | 21.5            | 0.35 | 40.7             | 18.6              | 8.4             | 24.2            | 0.66 |
| 13.04.2020                  | 71.3             | 23.6              | 14.7            | 21.6            | 0.53          | 72.3             | 31.9              | 10.2            | 24.3                                     | 0.41 | 59.4             | 26.3              | 8.8             | 21.5            | 0.28 | 64.2             | 20.9              | 8.4             | 25.5            | 0.76 |
| 16.04.2020                  | 42.7             | 13.1              | 11.2            | 19.5            | 0.49          | 52.9             | 25.8              | 8.1             | 26.7                                     | 0.38 | 46.1             | 18.3              | 8.9             | 22.3            | 0.27 | 52.5             | 18.6              | 7.6             | 25.7            | 0.69 |
| 20.04.2020                  | 50.7             | 16.6              | 11.1            | 19.2            | 0.46          | 71.5             | 30.7              | 8               | 21.5                                     | 0.42 | 53.5             | 18.9              | 8.2             | 21.4            | 0.34 | 59.2             | 21.1              | 7.8             | 24.4            | 0.71 |
| 23.04.2020                  | 43.4             | 11.5              | 14.1            | 20.5            | 0.44          | 57.1             | 22.8              | 10.1            | 22.9                                     | 0.41 | 48.9             | 13.2              | 7.5             | 22.2            | 0.43 | 51.3             | 13.4              | 8.6             | 20.6            | 0.61 |
| 27.04.2020                  | 30.7             | 8.2               | 11.3            | 20.6            | 0.46          | 42.4             | 16.2              | 6.5             | 23.7                                     | 0.37 | 60.3             | 21.6              | 7.8             | 21.4            | 0.42 | 44.3             | 13.7              | 9.4             | 24.4            | 0.56 |
| 30.04.2020                  | 35.6             | 12.2              | 10.3            | 21.2            | 0.5           | 56.3             | 20.2              | 8.6             | 22.9                                     | 0.42 | 54.2             | 19.3              | 8.2             | 21.8            | 0.45 | 50.2             | 16.4              | 9.5             | 23.7            | 0.62 |
| Permissible Limits          | 100              | 60                | 80              | 80              | 2             | 100              | 60                | 80              | 80                                       | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    |
| Date                        | Location-5       |                   |                 |                 | Location-6    |                  |                   |                 | Location-7                               |      |                  |                   | Location-8      |                 |      |                  |                   |                 |                 |      |
| Distance (KM) (w.r.t stack) | JIPT Building    |                   |                 |                 | Gorhi village |                  |                   |                 | Regaon village                           |      |                  |                   | Nirman Bhavan   |                 |      |                  |                   |                 |                 |      |
| Direction (w.r.t stack)     | W                |                   |                 |                 | SSW           |                  |                   |                 | N                                        |      |                  |                   | S               |                 |      |                  |                   |                 |                 |      |
|                             | 0.2              |                   |                 |                 | 4.5           |                  |                   |                 | 3.0                                      |      |                  |                   | 0.2             |                 |      |                  |                   |                 |                 |      |
| 02.04.2020                  | 56.5             | 22.4              | 8.6             | 22.6            | 0.54          | NA               | NA                | NA              | NA                                       | NA   | 71.1             | 21.5              | 6.8             | 21.1            | 0.51 | 58.6             | 23.1              | 9.8             | 23.2            | 0.63 |
| 06.04.2020                  | 52.7             | 21.2              | 8.2             | 22.2            | 0.58          | NA               | NA                | NA              | NA                                       | NA   | 66.1             | 24.1              | 6.4             | 20.9            | 0.53 | 62.3             | 24.5              | 10.2            | 23.8            | 0.58 |
| 09.04.2020                  | 45.6             | 16.3              | 9.3             | 21.8            | 0.64          | NA               | NA                | NA              | NA                                       | NA   | 36.3             | 14                | 5.6             | 20.5            | 0.48 | 60.7             | 23.2              | 12.4            | 22.7            | 0.64 |
| 13.04.2020                  | 50.2             | 20.2              | 9.5             | 20.9            | 0.63          | NA               | NA                | NA              | NA                                       | NA   | 56.5             | 19.4              | 6.4             | 20.7            | 0.57 | 56.5             | 20.3              | 10.5            | 21.9            | 0.62 |
| 16.04.2020                  | 42.3             | 13                | 7.8             | 21.6            | 0.59          | NA               | NA                | NA              | NA                                       | NA   | 44.7             | 13.5              | 5.7             | 22.4            | 0.44 | 50.2             | 17.8              | 9.6             | 23.4            | 0.57 |
| 20.04.2020                  | 40.8             | 12.6              | 7.3             | 18.9            | 0.57          | NA               | NA                | NA              | NA                                       | NA   | 58.1             | 18.5              | 5.1             | 21.1            | 0.55 | 48.3             | 18.6              | 8.9             | 24.2            | 0.54 |
| 23.04.2020                  | 43.8             | 13.2              | 8.3             | 19.7            | 0.56          | NA               | NA                | NA              | NA                                       | NA   | 31.7             | 11.6              | 6.8             | 21.1            | 0.38 | 45.8             | 16.5              | 8.7             | 23.6            | 0.49 |
| 27.04.2020                  | 47.4             | 15.7              | 8.6             | 21.3            | 0.52          | NA               | NA                | NA              | NA                                       | NA   | 52.9             | 15.5              | 6.2             | 19.6            | 0.37 | 52.3             | 20.7              | 9.5             | 22.4            | 0.52 |
| 30.04.2020                  | 50.2             | 18.6              | 7.9             | 20.9            | 0.45          | NA               | NA                | NA              | NA                                       | NA   | 48.6             | 12.8              | 7.5             | 20.2            | 0.42 | 56.4             | 23.2              | 10.5            | 21.6            | 0.53 |
| Permissible Limits          | 100              | 60                | 80              | 80              | 2             | 100              | 60                | 80              | 80                                       | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    |

Note: All Units in µg/m<sup>3</sup> except CO (in mg/m<sup>3</sup>)

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF MAY, 2020

| Date                        | Location-1       |                   |                 |                 | Location-2    |                  |                   |                 | Location-3                               |      |                  |                   | Location-4      |                 |      |                  |                   |                 |                 |      |
|-----------------------------|------------------|-------------------|-----------------|-----------------|---------------|------------------|-------------------|-----------------|------------------------------------------|------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|------|
|                             | New Switch Yard  |                   |                 |                 | Near Hostel 5 |                  |                   |                 | Savitrinagar Colony (Tehlrampur village) |      |                  |                   | Tamnar village  |                 |      |                  |                   |                 |                 |      |
| Distance (KM) (w.r.t stack) | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO            | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub>                          | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |
|                             | 0.2              |                   |                 |                 | 0.5           |                  |                   |                 | 5.0                                      |      |                  |                   | 3.0             |                 |      |                  |                   |                 |                 |      |
| Direction (w.r.t stack)     | NW               |                   |                 |                 | ESE           |                  |                   |                 | ENE                                      |      |                  |                   | S               |                 |      |                  |                   |                 |                 |      |
| 04.05.2020                  | 47.2             | 16.5              | 13.6            | 20.7            | 0.38          | 41.6             | 17.1              | 5.4             | 22.6                                     | 0.45 | 57.2             | 15.2              | 6.3             | 22.6            | 0.34 | 47.3             | 24.7              | 8.2             | 21.4            | 0.53 |
| 07.05.2020                  | 34.7             | 8.1               | 9.3             | 18.1            | 0.45          | 43.3             | 16.8              | 6.8             | 22.5                                     | 0.46 | 44.6             | 13.8              | 6.7             | 22.1            | 0.42 | 42.1             | 16.1              | 8.4             | NA              | 0.66 |
| 11.05.2020                  | 62.5             | 15.6              | 8.1             | 18.6            | 0.46          | 60.1             | 24.9              | 7.2             | 22.8                                     | 0.45 | 53.2             | 18.9              | 6.2             | 21.4            | 0.43 | 41.5             | 16.2              | 9.3             | NA              | 0.67 |
| 14.05.2020                  | 73.7             | 24.3              | 12.1            | 19.5            | 0.45          | 68.6             | 31.6              | 10.7            | 25.8                                     | 0.39 | 63.1             | 21.8              | 7.6             | 20.8            | 0.55 | 49.9             | 23.5              | 10.2            | NA              | 0.78 |
| 18.05.2020                  | 73.7             | 17.2              | 8.1             | 19.8            | 0.48          | 75.5             | 18.3              | 9.1             | 27.5                                     | 0.44 | 64.2             | 11.9              | 5.6             | 21.6            | 0.54 | NA               | NA                | NA              | NA              | NA   |
| 21.05.2020                  | 65.3             | 18.3              | 8.9             | 20.9            | 0.44          | 61.6             | 26.4              | 8.5             | 26.6                                     | 0.48 | 40.6             | 21.1              | 16.9            | 21.8            | 0.41 | 37.8             | 17.1              | 6.8             | NA              | 0.67 |
| 25.05.2020                  | 60.5             | 21.9              | 16.8            | 20.6            | 0.41          | 74.2             | 28.5              | 9.9             | 28.7                                     | 0.44 | 55.4             | 25.7              | 14.3            | 21.4            | 0.54 | 59.4             | 28.5              | 13.3            | 23.5            | 0.75 |
| 28.05.2020                  | 75.3             | 18.3              | 15.6            | 20.7            | 0.52          | 69.1             | 30.2              | 11.7            | 24.7                                     | 0.42 | 63.3             | 33.9              | 12.4            | 20.8            | 0.47 | NA               | NA                | NA              | NA              | NA   |
| Permissible Limits          | 100              | 60                | 80              | 80              | 2             | 100              | 60                | 80              | 80                                       | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    |
| Date                        | Location-5       |                   |                 |                 | Location-6    |                  |                   |                 | Location-7                               |      |                  |                   | Location-8      |                 |      |                  |                   |                 |                 |      |
|                             | JIPT Building    |                   |                 |                 | Gorhi village |                  |                   |                 | Regaon village                           |      |                  |                   | Nirman Bhavan   |                 |      |                  |                   |                 |                 |      |
| Distance (KM) (w.r.t stack) | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO            | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub>                          | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |
|                             | 0.2              |                   |                 |                 | 4.5           |                  |                   |                 | 3.0                                      |      |                  |                   | 0.2             |                 |      |                  |                   |                 |                 |      |
| Direction (w.r.t stack)     | W                |                   |                 |                 | SSW           |                  |                   |                 | N                                        |      |                  |                   | S               |                 |      |                  |                   |                 |                 |      |
| 04.05.2020                  | 65.2             | 23.2              | 10.5            | 21.3            | 0.54          | NA               | NA                | NA              | NA                                       | NA   | 38.7             | 10.9              | 5.8             | 20.8            | 0.38 | 62.1             | 20.1              | 9.7             | 20.6            | 0.52 |
| 07.05.2020                  | 58.2             | 20.1              | 8.9             | 22.3            | 0.51          | NA               | NA                | NA              | NA                                       | NA   | 44.2             | 12.4              | 6.8             | 20.7            | 0.46 | 54.6             | 17.6              | 8.6             | 21.4            | 0.56 |
| 11.05.2020                  | 61.6             | 22.4              | 9.8             | 21.8            | 0.53          | NA               | NA                | NA              | NA                                       | NA   | 53.8             | 16.8              | 9.8             | 21.1            | 0.62 | 58.4             | 20.2              | 9.2             | 20.5            | 0.62 |
| 14.05.2020                  | 55.2             | 18.6              | 9.2             | 22.5            | 0.57          | NA               | NA                | NA              | NA                                       | NA   | 75.7             | 22.5              | 6.5             | 22.3            | 0.55 | 50.3             | 16.7              | 8.6             | 21.2            | 0.64 |
| 18.05.2020                  | 63.8             | 21.2              | 11.7            | 23.1            | 0.64          | NA               | NA                | NA              | NA                                       | NA   | 74.2             | 17.9              | 8.7             | 21.3            | 0.49 | 57.6             | 19.3              | 9.5             | 22.3            | 0.68 |
| 21.05.2020                  | 67.2             | 23.6              | 10.8            | 22.7            | 0.62          | 62.6             | 21.7              | 8.8             | 22.1                                     | 0.41 | 65.1             | 23.7              | 8.5             | 20.9            | 0.52 | 64.5             | 22.4              | 10.5            | 20.8            | 0.63 |
| 25.05.2020                  | 64.5             | 22.1              | 13.5            | 21.6            | 0.58          | 54.3             | 27.5              | 10.5            | 20.3                                     | 0.52 | 64.9             | 25.2              | 7.8             | 20.2            | 0.47 | 60.3             | 20.1              | 12.2            | 21.1            | 0.52 |
| 28.05.2020                  | 68.3             | 24.6              | 12.3            | 22.4            | 0.56          | 59.1             | 24.1              | 8.2             | 19.9                                     | 0.68 | 69.1             | 27.8              | 7.3             | 18.1            | NA   | 63.5             | 21.3              | 10.8            | 20.7            | 0.57 |
| Permissible Limits          | 100              | 60                | 80              | 80              | 2             | 100              | 60                | 80              | 80                                       | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    |

Note: All Units in µg/m<sup>3</sup> except CO (in mg/m<sup>3</sup>)

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF JUNE, 2020

| Date                        | Location-1       |                   |                 |                 | Location-2    |                  |                   |                 | Location-3                               |      |                  |                   | Location-4      |                 |      |                  |                   |                 |                 |      |
|-----------------------------|------------------|-------------------|-----------------|-----------------|---------------|------------------|-------------------|-----------------|------------------------------------------|------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|------|
|                             | New Switch Yard  |                   |                 |                 | Near Hostel 5 |                  |                   |                 | Savitrinagar Colony (Tehirampur village) |      |                  |                   | Tamnar village  |                 |      |                  |                   |                 |                 |      |
| Distance (KM) (w.r.t stack) | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO            | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub>                          | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |
|                             | 0.2              |                   |                 |                 | 0.5           |                  |                   |                 | 5.0                                      |      |                  |                   | 3.0             |                 |      |                  |                   |                 |                 |      |
| Direction (w.r.t stack)     | NW               |                   |                 |                 | ESE           |                  |                   |                 | ENE                                      |      |                  |                   | S               |                 |      |                  |                   |                 |                 |      |
| 01.06.2020                  | 52.2             | 18.3              | 12.8            | 21.9            | 0.46          | 57.2             | 31.3              | 14.4            | 25.9                                     | 0.67 | 52.5             | 25.1              | 12.1            | 22.8            | 0.31 | 67.6             | 33.2              | 13.2            | 28.5            | 0.85 |
| 04.06.2020                  | 39.9             | 7.5               | 9.2             | 21.2            | 0.44          | 46.5             | 19.6              | 10.2            | 25.7                                     | 0.47 | 60.7             | 18.7              | 11.3            | 21.7            | 0.36 | NA               | NA                | NA              | NA              | NA   |
| 08.06.2020                  | 75.7             | 20.4              | 13.1            | 21.1            | 0.52          | 71.5             | 33.8              | 9.5             | NA                                       | 0.43 | 54.1             | 27.2              | 10.2            | 20.1            | 0.53 | 47.1             | 17.3              | 9.8             | 20.8            | 0.71 |
| 11.06.2020                  | 59.1             | 13.5              | 15.2            | 22.1            | 0.53          | 50.8             | 16.9              | 13.6            | 23.2                                     | 0.65 | 68.1             | 18.2              | 7.2             | 25.3            | 0.42 | 41.6             | 14.8              | 13.5            | 22.7            | 0.69 |
| 15.06.2020                  | 35.6             | 14.7              | 7.4             | 20.1            | 0.36          | 27.2             | 7.7               | 13.5            | 27.8                                     | 0.64 | 30.8             | 14.9              | 10.8            | 24.5            | 0.32 | 36.7             | 11.4              | 8.1             | 24.6            | 0.67 |
| 18.06.2020                  | 35.8             | 13.8              | 6.8             | 19.8            | 0.42          | 36.6             | 13.4              | 10.8            | 27.5                                     | 0.64 | 41.9             | 15.1              | 7.9             | 25.1            | 0.48 | 45.8             | 16.3              | 11.3            | 20.6            | 0.61 |
| 22.06.2020                  | 40.6             | 13.7              | 9.8             | 19.5            | 0.39          | 36.3             | 12.3              | 9.3             | 23.8                                     | 0.61 | 33.3             | 13.4              | 10.1            | 24.6            | 0.42 | 38.4             | 15.5              | 9.4             | 21.2            | 0.62 |
| 25.06.2020                  | 55.8             | 19.6              | 13.1            | 23.3            | 0.49          | 40.1             | 15.9              | 9.9             | 26.8                                     | 0.63 | 21.6             | 18.5              | 7.5             | 24.8            | 0.54 | 62.5             | 19.9              | 15.4            | 19.3            | 0.64 |
| 29.06.2020                  | 48.4             | 18.1              | 10.1            | 23.2            | 0.46          | 43.5             | 21.6              | 10.1            | 26.9                                     | 0.62 | 33.2             | 32.1              | 8.6             | 25.1            | 0.55 | 70.8             | 27.1              | 16.3            | 19.6            | 0.63 |
| Permissible Limits          | 100              | 60                | 80              | 80              | 2             | 100              | 60                | 80              | 80                                       | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    |
| Date                        | Location-5       |                   |                 |                 | Location-6    |                  |                   |                 | Location-7                               |      |                  |                   | Location-8      |                 |      |                  |                   |                 |                 |      |
|                             | JIPT Building    |                   |                 |                 | Gorhi village |                  |                   |                 | Regaon village                           |      |                  |                   | Nirman Bhavan   |                 |      |                  |                   |                 |                 |      |
| Distance (KM) (w.r.t stack) | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO            | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub>                          | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |
|                             | 0.2              |                   |                 |                 | 4.5           |                  |                   |                 | 3.0                                      |      |                  |                   | 0.2             |                 |      |                  |                   |                 |                 |      |
| Direction (w.r.t stack)     | W                |                   |                 |                 | SSW           |                  |                   |                 | N                                        |      |                  |                   | S               |                 |      |                  |                   |                 |                 |      |
| 01.06.2020                  | 58.6             | 16.3              | 11.3            | 21.3            | 0.65          | 46.5             | 21.1              | 8.7             | 19.8                                     | 0.68 | 40.1             | 14.9              | 6.9             | 18.3            | NA   | 54.2             | 14.5              | 9.8             | 19.8            | 0.61 |
| 04.06.2020                  | 60.4             | 18.4              | 10.8            | 22.2            | 0.59          | 59.8             | 26.1              | 11.3            | 19.8                                     | 0.58 | 34.4             | 11.8              | 6.8             | 19.7            | NA   | 56.8             | 16.7              | 10.2            | 20.4            | 0.53 |
| 08.06.2020                  | 63.5             | 20.5              | 11.5            | 23.1            | 0.54          | 58.1             | 25.2              | 8.8             | 22.3                                     | 0.62 | 59.7             | 24.1              | 7.9             | 25.2            | NA   | 59.3             | 18.2              | 9.7             | 21.2            | 0.47 |
| 11.06.2020                  | 56.4             | 17.3              | 10.3            | 20.3            | 0.58          | 42.5             | 16.8              | 9.8             | 19.8                                     | 0.61 | 50.5             | 21.5              | 7.3             | 21.4            | NA   | 52.4             | 15.6              | 8.9             | 19.3            | 0.52 |
| 15.06.2020                  | 32.5             | 11.2              | 8.5             | 18.7            | 0.41          | 26.2             | 12.1              | 9.5             | 21.1                                     | 0.52 | 28.2             | 11.9              | 6.6             | 20.8            | NA   | 28.3             | 9.8               | 7.9             | 17.9            | 0.38 |
| 18.06.2020                  | 28.6             | 10.1              | 7.8             | 17.9            | 0.52          | 40.1             | 12.5              | 8.6             | 22.5                                     | 0.44 | 31.5             | 12.4              | 6.7             | 21.4            | NA   | 24.2             | 8.6               | 7.4             | 16.8            | 0.48 |
| 22.06.2020                  | 34.2             | 13.2              | 8.6             | 16.8            | 0.57          | 39.7             | 15.2              | 7.6             | 21.2                                     | 0.54 | 23.8             | 10.5              | 7.1             | 21.6            | NA   | 30.6             | 11.4              | 8.2             | 15.9            | 0.54 |
| 25.06.2020                  | 64.5             | 21.2              | 11.5            | 20.8            | 0.76          | 55.8             | 23.4              | 12.8            | 16.9                                     | 0.47 | 36.2             | 12.3              | 7.2             | 18.3            | NA   | 60.4             | 19.3              | 10.6            | 19.6            | 0.72 |
| 29.06.2020                  | 68.2             | 23.4              | 12.8            | 21.6            | 0.72          | 58.3             | 21.2              | 10.1            | 17.1                                     | 0.52 | 31.4             | 10.2              | 6.8             | 20.6            | NA   | 64.8             | 21.2              | 11.8            | 20.3            | 0.68 |
| Permissible Limits          | 100              | 60                | 80              | 80              | 2             | 100              | 60                | 80              | 80                                       | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    |

Note: All Units in µg/m<sup>3</sup> except CO (in mg/m<sup>3</sup>)



AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF JULY, 2020

| Date                        | Location-1       |                   |                 |                 |      |                  |                   | Location-2      |                 |      |                  |                   |                 |                 | Location-3                               |                  |                   |                 |                 |      |                  | Location-4        |                 |                 |    |  |  |  |
|-----------------------------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|------------------------------------------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|----|--|--|--|
|                             | New Switch Yard  |                   |                 |                 |      |                  |                   | Near Hostel 5   |                 |      |                  |                   |                 |                 | Savitrinagar Colony (Tehirampur village) |                  |                   |                 |                 |      |                  | Tamnar village    |                 |                 |    |  |  |  |
|                             | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO                                       | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO |  |  |  |
| Distance (KM) (w.r.t stack) | 0.2              |                   |                 |                 |      |                  |                   | 0.5             |                 |      |                  |                   |                 |                 | 5.0                                      |                  |                   |                 |                 |      |                  | 3.0               |                 |                 |    |  |  |  |
| Direction (w.r.t stack)     | NW               |                   |                 |                 |      |                  |                   | ESE             |                 |      |                  |                   |                 |                 | ENE                                      |                  |                   |                 |                 |      |                  | S                 |                 |                 |    |  |  |  |
| 02.07.2020                  | 59.9             | 21.9              | 10.9            | 21.9            | 0.48 | 47.7             | 18.5              | 11.6            | 26.9            | 0.55 | 46.1             | 23.8              | 11.9            | 24.6            | 0.65                                     | 62.8             | 23                | 13.6            | 21              | 0.62 |                  |                   |                 |                 |    |  |  |  |
| 06.07.2020                  | 32.8             | 11.7              | 6.5             | 24.8            | 0.37 | 31.2             | 14.1              | 8.9             | 26.7            | 0.61 | 48.5             | 18.3              | 8.5             | 25.4            | 0.6                                      | 57.1             | 22.8              | 10.3            | 20              | 0.64 |                  |                   |                 |                 |    |  |  |  |
| 09.07.2020                  | 35.7             | 12.4              | 8.5             | 23.6            | 0.49 | 26.4             | 13.9              | 14.4            | 28.9            | 0.45 | 41.7             | 10.1              | 11.6            | 23.8            | 0.58                                     | 41.1             | 12.3              | 12.5            | 20              | 0.63 |                  |                   |                 |                 |    |  |  |  |
| 13.07.2020                  | NA               | NA                | NA              | NA              | NA   | 57.8             | 30.9              | 13.4            | 29.5            | 0.48 | 69.8             | 27.2              | 9.1             | 22.6            | 0.34                                     | 73               | 30.6              | 9.3             | 19              | 0.61 |                  |                   |                 |                 |    |  |  |  |
| 16.07.2020                  | NA               | NA                | NA              | NA              | NA   | 47.6             | 20.3              | 11.8            | 26.8            | 0.52 | 39.2             | 13.9              | 8.4             | 22.5            | 0.32                                     | 42.6             | 19.7              | 9.1             | 20              | 0.63 |                  |                   |                 |                 |    |  |  |  |
| 20.07.2020                  | NA               | NA                | NA              | NA              | NA   | 46.6             | 20.1              | 6.8             | 31.5            | 0.44 | 37.3             | 15.9              | 12.2            | 22.7            | 0.4                                      | 58.7             | 21.4              | 9.7             | 19              | 0.6  |                  |                   |                 |                 |    |  |  |  |
| 23.07.2020                  | NA               | NA                | NA              | NA              | NA   | 31.7             | 11.4              | 11.5            | 30.1            | 0.52 | 32.6             | 14.2              | 17.5            | 22.9            | 0.44                                     | 39.1             | 13.5              | 8.9             | 19              | 0.62 |                  |                   |                 |                 |    |  |  |  |
| 27.07.2020                  | 33.1             | 14.6              | 7.9             | NA              | 0.41 | 53.1             | 28.5              | 9               | 24.3            | 0.43 | 43.8             | 21.9              | 13.2            | 22.9            | 0.48                                     | 73.8             | 32.4              | 11.4            | 20              | 0.66 |                  |                   |                 |                 |    |  |  |  |
| 30.07.2020                  | 35.9             | 13.2              | 7               | NA              | 0.49 | 37.8             | 13.3              | 9.2             | 23.5            | 0.47 | 52.1             | 22.7              | 10.4            | 23.2            | 0.35                                     | 45.5             | 17.7              | 12.1            | 19              | 0.65 |                  |                   |                 |                 |    |  |  |  |
| Permissible Limits          | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2                                        | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2  |  |  |  |
| Date                        | Location-5       |                   |                 |                 |      |                  |                   | Location-6      |                 |      |                  |                   |                 |                 | Location-7                               |                  |                   |                 |                 |      |                  | Location-8        |                 |                 |    |  |  |  |
|                             | JIPT Building    |                   |                 |                 |      |                  |                   | Gorhi village   |                 |      |                  |                   |                 |                 | Regaon village                           |                  |                   |                 |                 |      |                  | Nirman Bhavan     |                 |                 |    |  |  |  |
|                             | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO                                       | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO |  |  |  |
| Distance (KM) (w.r.t stack) | 0.2              |                   |                 |                 |      |                  |                   | 4.5             |                 |      |                  |                   |                 |                 | 3.0                                      |                  |                   |                 |                 |      |                  | 0.2               |                 |                 |    |  |  |  |
| Direction (w.r.t stack)     | W                |                   |                 |                 |      |                  |                   | SSW             |                 |      |                  |                   |                 |                 | N                                        |                  |                   |                 |                 |      |                  | S                 |                 |                 |    |  |  |  |
| 02.07.2020                  | 58.2             | 22.3              | 10.6            | 23.2            | 0.61 | 54.1             | 25.4              | 11.1            | 16.9            | 0.53 | 37.7             | 17.8              | 6.8             | 25.2            | NA                                       | 55               | 20                | 12              | 20              | 0.56 |                  |                   |                 |                 |    |  |  |  |
| 06.07.2020                  | 45.6             | 16.4              | 8.9             | 21.5            | 0.7  | 41.3             | 19.1              | 10.1            | 21.4            | 0.55 | 27.4             | 14.9              | 6.6             | 22.4            | NA                                       | 42               | 15                | 9.8             | 21              | 0.54 |                  |                   |                 |                 |    |  |  |  |
| 09.07.2020                  | 38.5             | 12.4              | 9.2             | 20.8            | 0.6  | 39.2             | 17.5              | 9.1             | 23.8            | 0.55 | 24.2             | 11.3              | 6.6             | 21.2            | NA                                       | 36               | 11                | 9.5             | 20              | 0.62 |                  |                   |                 |                 |    |  |  |  |
| 13.07.2020                  | 48.6             | 18.6              | 10.7            | 22.6            | 0.6  | 58.3             | 29.9              | 18.9            | 32.7            | 0.55 | NA               | 20.4              | 6.9             | 19.5            | NA                                       | 45               | 16                | 7.9             | 21              | 0.59 |                  |                   |                 |                 |    |  |  |  |
| 16.07.2020                  | 56.3             | 20.1              | 12.3            | 23.1            | 0.6  | 35.7             | 13.8              | 12.6            | 25.1            | 0.53 | NA               | 18.6              | 7.2             | 18.9            | NA                                       | 52               | 18                | 10              | 21              | 0.64 |                  |                   |                 |                 |    |  |  |  |
| 20.07.2020                  | 62.2             | 23.2              | 13.2            | 22.4            | 0.7  | 33.4             | 19.7              | 19.5            | 32.5            | 0.53 | NA               | 16.5              | 6.6             | 17.2            | NA                                       | 59               | 21                | 11              | 22              | 0.66 |                  |                   |                 |                 |    |  |  |  |
| 23.07.2020                  | 44.3             | 14.1              | 9.6             | 20.2            | 0.5  | 33.6             | 14.2              | 18.1            | 32.4            | 0.56 | NA               | 12.3              | 5.3             | 16.5            | NA                                       | 40               | 13                | 8.6             | 19              | 0.57 |                  |                   |                 |                 |    |  |  |  |
| 27.07.2020                  | 56.5             | 17.3              | 10.5            | 22.8            | 0.7  | 32.3             | 12.7              | 17.2            | 32              | 0.52 | NA               | 19.2              | 6.9             | 18.7            | NA                                       | 53               | 15                | 9.8             | 22              | 0.68 |                  |                   |                 |                 |    |  |  |  |
| 30.07.2020                  | 65.3             | 18.5              | 12.4            | 23.6            | 0.6  | 32.9             | 15.6              | 18.7            | 32.4            | 0.56 | 45.9             | 17.5              | 6.6             | 19.5            | 0.62                                     | 62               | 17                | 11              | 23              | 0.63 |                  |                   |                 |                 |    |  |  |  |
| Permissible Limits          | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2                                        | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2  |  |  |  |

Note: All Units in µg/m<sup>3</sup> except CO (in mg/m<sup>3</sup>)

## AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF AUGUST, 2020

| Date                           | Location-1       |                   |                 |                 | Location-2    |                  |                   |                 | Location-3                                |      |                  |                   | Location-4      |                 |      |                  |                   |                 |                 |      |
|--------------------------------|------------------|-------------------|-----------------|-----------------|---------------|------------------|-------------------|-----------------|-------------------------------------------|------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|------|
|                                | New Switch Yard  |                   |                 |                 | Near Hostel 5 |                  |                   |                 | Savitrinagar Colony (Tehfirampur village) |      |                  |                   | Tamnar village  |                 |      |                  |                   |                 |                 |      |
| Distance (KM)<br>(w.r.t stack) | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO            | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub>                           | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |
|                                | 0.2              |                   |                 |                 | 0.5           |                  |                   |                 | 5.0                                       |      |                  |                   | 3.0             |                 |      |                  |                   |                 |                 |      |
| Direction (w.r.t stack)        | NW               |                   |                 |                 | ESE           |                  |                   |                 | ENE                                       |      |                  |                   | S               |                 |      |                  |                   |                 |                 |      |
| 03.08.2020                     | 38.9             | 12.4              | 7.1             | NA              | 0.48          | 51.6             | 20.2              | 7.3             | 25.4                                      | 0.56 | 40.7             | 16.5              | 10.6            | 23.1            | 0.46 | 51.3             | 19.8              | 8.4             | 23.8            | 0.68 |
| 06.08.2020                     | 20.8             | 6.4               | 7.5             | NA              | 0.47          | 31.6             | 10.9              | 8.7             | 31.2                                      | 0.52 | 20.2             | 11.2              | 13.6            | 22.3            | 0.33 | 32.1             | 12.3              | 12              | 21.4            | 0.6  |
| 10.08.2020                     | 16.9             | 5.3               | 6.7             | NA              | 0.49          | 20.8             | 10.2              | 6.7             | 29.4                                      | 0.48 | 32.6             | 12.4              | 12.1            | 23.2            | 0.34 | 28               | 7.8               | 10.9            | 22.4            | 0.58 |
| 13.08.2020                     | 26.4             | 7.3               | 7.2             | NA              | 0.52          | 44.9             | 14.1              | 7.5             | 26.9                                      | 0.54 | 26.4             | 15.3              | 11.4            | 22.3            | 0.36 | 50.7             | 16.9              | 8.5             | 22.1            | 0.6  |
| 17.08.2020                     | 24.4             | 6.8               | 7.4             | NA              | 0.48          | 22.7             | 13.6              | 11.8            | 30.8                                      | 0.47 | 30.1             | 8.5               | 9.9             | 23.1            | 0.39 | 35               | 10.9              | 6.3             | 21.9            | 0.47 |
| 20.08.2020                     | 19.1             | 7.2               | 7.1             | NA              | 0.52          | 17.6             | 11.8              | 11.2            | 30.5                                      | 0.44 | 30.3             | 9.2               | 10.8            | 23.4            | 0.42 | 29.8             | 11.2              | 6.5             | 23.2            | 0.44 |
| 24.08.2020                     | 30.4             | 9.9               | 7               | NA              | 0.49          | 75.5             | 33.5              | 14.2            | 24.5                                      | 0.43 | 25.7             | 12.1              | 11.7            | 23.6            | 0.36 | 71.2             | 23.6              | 8.1             | 22.5            | 0.54 |
| 27.08.2020                     | 20               | 12.8              | 6.7             | 22.7            | 0.43          | 12.4             | 7.2               | 13.3            | 24.9                                      | 0.42 | 31.2             | 6.3               | 9.1             | 22.9            | 0.38 | 20.2             | 8.5               | 6.6             | 20.7            | 0.4  |
| 31.08.2020                     | 53.5             | 20.2              | 7.9             | 25.3            | 0.45          | 73.2             | 29.1              | 15.6            | 24.8                                      | 0.47 | 54.7             | 21.4              | 9.5             | 23.1            | 0.42 | 67.2             | 23.7              | 7.3             | 21.6            | 0.48 |
| Permissible Limits             | 100              | 60                | 80              | 80              | 2             | 100              | 60                | 80              | 80                                        | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    |
|                                | Location-5       |                   |                 |                 | Location-6    |                  |                   |                 | Location-7                                |      |                  |                   | Location-8      |                 |      |                  |                   |                 |                 |      |
| Date                           | JIPT Building    |                   |                 |                 | Gorhi village |                  |                   |                 | Regaon village                            |      |                  |                   | Nirman Bhavan   |                 |      |                  |                   |                 |                 |      |
| Distance (KM)<br>(w.r.t stack) | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO            | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub>                           | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |
|                                | 0.2              |                   |                 |                 | 4.5           |                  |                   |                 | 3.0                                       |      |                  |                   | 0.2             |                 |      |                  |                   |                 |                 |      |
| Direction (w.r.t stack)        | W                |                   |                 |                 | SSW           |                  |                   |                 | N                                         |      |                  |                   | S               |                 |      |                  |                   |                 |                 |      |
| 03.08.2020                     | 46.8             | 17.5              | 9.6             | 22.6            | 0.5           | NA               | NA                | NA              | NA                                        | NA   | 45.7             | 14.3              | 6.7             | 20.3            | 0.48 | 42.2             | 14.6              | 9.5             | 21.9            | 0.52 |
| 06.08.2020                     | 38.5             | 12.2              | 8.8             | 20.8            | 0.4           | 35.9             | 17.3              | 7.8             | 21.5                                      | 0.44 | 45.8             | 13.8              | 6.9             | 18.2            | 0.43 | 35.4             | 10.2              | 8.6             | 20.3            | 0.54 |
| 10.08.2020                     | 34.2             | 10.6              | 8.4             | 21.2            | 0.4           | 35.2             | 11.6              | 12.1            | 23.9                                      | 0.55 | 46.3             | 18.4              | 6.6             | 19.4            | 0.39 | 26.5             | 8.9               | 8.2             | 20.8            | 0.49 |
| 13.08.2020                     | 44.6             | 13.4              | 9.2             | 22.1            | 0.5           | 39.7             | 10.2              | 11.4            | 23.7                                      | 0.54 | 36.9             | 15.6              | 6.5             | 16.9            | 0.79 | 38.2             | 11.5              | 9.1             | 21.8            | 0.45 |
| 17.08.2020                     | 52.2             | 20.2              | 10.2            | 23.2            | 0.6           | 42.2             | 16.8              | 12.3            | 25.1                                      | 0.58 | 36.6             | NA                | 7.9             | 20.6            | 0.65 | 45.1             | 17.6              | 9.7             | 22.1            | 0.53 |
| 20.08.2020                     | 36.5             | 12.6              | 8.6             | 19.8            | 0.5           | 41.9             | 13.8              | 8.5             | 21.4                                      | 0.57 | 36.3             | NA                | 6.9             | 21.4            | 0.49 | 32.2             | 10.1              | 8.4             | 18.9            | 0.57 |
| 24.08.2020                     | 54.2             | 19.6              | 11.2            | 21.8            | 0.6           | 47.3             | 19.5              | 13.8            | 23.5                                      | 0.43 | 36.9             | NA                | 9.2             | 22.6            | 0.46 | 48.3             | 16.3              | 11              | 20.4            | 0.59 |
| 27.08.2020                     | 35.6             | 11.7              | 7.9             | 20.7            | 0.6           | 34.4             | 12.9              | 8.8             | 20.3                                      | 0.56 | 36.1             | NA                | 8.7             | 23.2            | 0.51 | 28.9             | 10.2              | 7.6             | 19.2            | 0.55 |
| 31.08.2020                     | 68.4             | 22.3              | 12.2            | 22.8            | 0.7           | 48.1             | 16.5              | 10.3            | 20.6                                      | 0.62 | 43.7             | NA                | 8.9             | 24.2            | 0.61 | 65.3             | 20.7              | 12              | 21.8            | 0.62 |
| Permissible Limits             | 100              | 60                | 80              | 80              | 2             | 100              | 60                | 80              | 80                                        | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    |

Note: All Units in  $\mu\text{g}/\text{m}^3$  except CO (in  $\text{mg}/\text{m}^3$ )

## AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF SEPTEMBER, 2020

| Date                           | Location-1       |                   |                 |                 |      |                  |                   | Location-2      |                 |      |                  |                   |                 |                 | Location-3                                |                  |                   |                 |                 |      |                  | Location-4        |                 |                 |      |      |      |      |      |      |
|--------------------------------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|-------------------------------------------|------------------|-------------------|-----------------|-----------------|------|------------------|-------------------|-----------------|-----------------|------|------|------|------|------|------|
|                                | New Switch Yard  |                   |                 |                 |      |                  |                   | Near Hostel 5   |                 |      |                  |                   |                 |                 | Savitrinagar Colony (Tehltrampur village) |                  |                   |                 |                 |      |                  | Tamnar village    |                 |                 |      |      |      |      |      |      |
|                                | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO                                        | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |      |      |      |      |      |
| Distance (KM)<br>(w.r.t stack) | 0.2              |                   |                 |                 |      |                  |                   |                 |                 |      |                  |                   |                 |                 |                                           |                  |                   |                 |                 |      |                  |                   |                 |                 |      |      |      |      |      |      |
| Direction (w.r.t stack)        | NW               |                   |                 |                 |      |                  |                   |                 |                 |      |                  |                   |                 |                 |                                           |                  |                   |                 |                 |      |                  |                   |                 |                 |      |      |      |      |      |      |
| 03.09.2020                     | 65               | 21.2              | 6.7             | 22.8            | 0.45 | 59.6             | 17.8              | 9.8             | 25.1            | 0.46 | 60.2             | 20.8              | 10.2            | 23.3            | 0.43                                      | 66.4             | 25.1              | 14.1            | 25.7            | 0.43 | 66.4             | 25.1              | 14.1            | 25.7            | 0.43 | 66.4 | 25.1 | 14.1 | 25.7 | 0.43 |
| 07.09.2020                     | 76.1             | 15.1              | 7.3             | 23.8            | 0.53 | 76.2             | 23.9              | 9.4             | 25.7            | 0.51 | 56.8             | 19.3              | 10.8            | 23.1            | 0.37                                      | 73.4             | 23.5              | 12.3            | 22.5            | 0.53 | 73.4             | 23.5              | 12.3            | 22.5            | 0.53 | 73.4 | 23.5 | 12.3 | 22.5 | 0.53 |
| 10.09.2020                     | 56.5             | 18.9              | 7.1             | 22.6            | 0.44 | 87.3             | 28.9              | 13.6            | 27.2            | 0.46 | 59.8             | 15.9              | 14.7            | 20.6            | 0.42                                      | 60.7             | 22                | 10.5            | 22.6            | 0.52 | 60.7             | 22                | 10.5            | 22.6            | 0.52 | 60.7 | 22   | 10.5 | 22.6 | 0.52 |
| 14.09.2020                     | 59.9             | 19.4              | 6.9             | 22              | 0.45 | 74.4             | 24.5              | 15.4            | 26.1            | 0.43 | 62.5             | 21.5              | 13.2            | 21.3            | 0.32                                      | 64.1             | 18.7              | 11.6            | 23.7            | 0.47 | 64.1             | 18.7              | 11.6            | 23.7            | 0.47 | 64.1 | 18.7 | 11.6 | 23.7 | 0.47 |
| 17.09.2020                     | 50.1             | 17                | 9.4             | 24.4            | 0.42 | 68.7             | 30.8              | 10.9            | 25.5            | 0.44 | 63.6             | 17.7              | 13.8            | 20.4            | 0.4                                       | 61.4             | 16.3              | 11.4            | 24.5            | 0.44 | 61.4             | 16.3              | 11.4            | 24.5            | 0.44 | 61.4 | 16.3 | 11.4 | 24.5 | 0.44 |
| 21.09.2020                     | 44.8             | 12                | 8.6             | 24.2            | 0.45 | 42.2             | 21.7              | 8.7             | 26.8            | 0.47 | 31.5             | 13.7              | 9.2             | 20.8            | 0.45                                      | 32.4             | 10.6              | 8.3             | 22.9            | 0.52 | 32.4             | 10.6              | 8.3             | 22.9            | 0.52 | 32.4 | 10.6 | 8.3  | 22.9 | 0.52 |
| 24.09.2020                     | 53.8             | 16.8              | 8.7             | 23.9            | 0.43 | 61.2             | 26.8              | 10.2            | 26.2            | 0.42 | 53.6             | 16.2              | 11.2            | 19.8            | 0.42                                      | 53               | 17.7              | 12.1            | 23.8            | 0.59 | 53               | 17.7              | 12.1            | 23.8            | 0.59 | 53   | 17.7 | 12.1 | 23.8 | 0.59 |
| 28.09.2020                     | 65.2             | 18                | 9.1             | 24.1            | 0.46 | 69.1             | 32.7              | 7.9             | 25.1            | 0.56 | 49.1             | 16.6              | 13.1            | 19.7            | 0.43                                      | 69.1             | 24.9              | 14.7            | 24.3            | 0.68 | 69.1             | 24.9              | 14.7            | 24.3            | 0.68 | 69.1 | 24.9 | 14.7 | 24.3 | 0.68 |
| Permissible Limits             | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2                                         | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    | 100  | 60   | 80   | 80   | 2    |
| Date                           | Location-5       |                   |                 |                 |      |                  |                   | Location-6      |                 |      |                  |                   |                 |                 | Location-7                                |                  |                   |                 |                 |      |                  | Location-8        |                 |                 |      |      |      |      |      |      |
|                                | JIPT Building    |                   |                 |                 |      |                  |                   | Gorhi village   |                 |      |                  |                   |                 |                 | Regaon village                            |                  |                   |                 |                 |      |                  | Nirman Bhavan     |                 |                 |      |      |      |      |      |      |
|                                | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO                                        | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>x</sub> | CO   |      |      |      |      |      |
| Distance (KM)<br>(w.r.t stack) | 0.2              |                   |                 |                 |      |                  |                   |                 |                 |      |                  |                   |                 |                 |                                           |                  |                   |                 |                 |      |                  |                   |                 |                 |      |      |      |      |      |      |
| Direction (w.r.t stack)        | W                |                   |                 |                 |      |                  |                   |                 |                 |      |                  |                   |                 |                 |                                           |                  |                   |                 |                 |      |                  |                   |                 |                 |      |      |      |      |      |      |
| 03.09.2020                     | 68.5             | 23.2              | 12.3            | 23.8            | 0.7  | 38.4             | 18.7              | 7.3             | 22.1            | 0.59 | 36.7             | NA                | 8.6             | 23.2            | 0.66                                      | 64               | 23                | 11              | 22.3            | 0.69 | 64               | 23                | 11              | 22.3            | 0.69 | 64   | 23   | 11   | 22.3 | 0.69 |
| 07.09.2020                     | 72.2             | 26.3              | 13.8            | 24.5            | 0.7  | 64.3             | 24.3              | 8.4             | 24.4            | 0.54 | 42.8             | NA                | 8.5             | 24.8            | 0.71                                      | 68               | 25                | 12              | 23.1            | 0.67 | 68               | 25                | 12              | 23.1            | 0.67 | 68   | 25   | 12   | 23.1 | 0.67 |
| 10.09.2020                     | 65.9             | 24.8              | 12.2            | 25.2            | 0.6  | 62.3             | 23.6              | 8.6             | 26.4            | 0.65 | 56.5             | NA                | 9.3             | 23.4            | 0.65                                      | 61               | 22                | 10              | 22.8            | 0.59 | 61               | 22                | 10              | 22.8            | 0.59 | 61   | 22   | 10   | 22.8 | 0.59 |
| 14.09.2020                     | 64.8             | 23.9              | 11.8            | 23.6            | 0.6  | 45.6             | 16.4              | 8.6             | 23.1            | 0.56 | 56.9             | NA                | 9.1             | 23.5            | 0.55                                      | 60               | 20                | 9.8             | 21.9            | 0.62 | 60               | 20                | 9.8             | 21.9            | 0.62 | 60   | 20   | 9.8  | 21.9 | 0.62 |
| 17.09.2020                     | 70.3             | 26.4              | 14.3            | 25.4            | 0.7  | 42.8             | 12.3              | 10.8            | 24.1            | 0.59 | 48.8             | NA                | 8.6             | 24.3            | 0.45                                      | 67               | 23                | 12              | 23.4            | 0.64 | 67               | 23                | 12              | 23.4            | 0.64 | 67   | 23   | 12   | 23.4 | 0.64 |
| 21.09.2020                     | 38.2             | 13.2              | 8.9             | 22.2            | 0.5  | 48.8             | 20.4              | 13.3            | 21.9            | 0.57 | 42.5             | NA                | 8.5             | 23.2            | 0.52                                      | 36               | 12                | 8.2             | 21.2            | 0.57 | 36               | 12                | 8.2             | 21.2            | 0.57 | 36   | 12   | 8.2  | 21.2 | 0.57 |
| 24.09.2020                     | 58.9             | 20.3              | 10.2            | 23.1            | 0.7  | 37.3             | 16.8              | 10.8            | 25.6            | 0.38 | 40.2             | 15.3              | 7.6             | 22.9            | 0.56                                      | 55               | 20                | 9.6             | 22.4            | 0.59 | 55               | 20                | 9.6             | 22.4            | 0.59 | 55   | 20   | 9.6  | 22.4 | 0.59 |
| 28.09.2020                     | 67.3             | 22.8              | 11.8            | 24.3            | 0.6  | 44.3             | 19.2              | 9.4             | 24.7            | 0.54 | 37.7             | 15.1              | 7.4             | 20.5            | 0.62                                      | 63               | 22                | 10              | 23.5            | 0.56 | 63               | 22                | 10              | 23.5            | 0.56 | 63   | 22   | 10   | 23.5 | 0.56 |
| Permissible Limits             | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2                                         | 100              | 60                | 80              | 80              | 2    | 100              | 60                | 80              | 80              | 2    | 100  | 60   | 80   | 80   | 2    |

Note: All Units in  $\mu\text{g}/\text{m}^3$  except CO (in  $\text{mg}/\text{m}^3$ )

| S.NO. | MONTH  | 20 KWp TG-1 ROOF<br>TOP PANEL | 5 KWp HOSTEL NO-1<br>ROOF TOP PANEL | Solar Strite light at<br>Colony | Total in KWH |
|-------|--------|-------------------------------|-------------------------------------|---------------------------------|--------------|
|       |        | ENERGY GENERATED<br>IN(KWH)   | ENERGY GENERATED<br>IN(KWH)         | ENERGY GENERATED<br>IN(KWH)     |              |
| 1     | Apr-20 | 1524.4                        | 302.0                               | 510                             | 2336.40      |
| 2     | May-20 | 2045.6                        | 295.0                               | 510                             | 2850.60      |
| 3     | Jun-20 | 1011.1                        | 185.0                               | 510                             | 1706.10      |
| 4     | Jul-20 | 1014.6                        | 186.0                               | 510                             | 1710.60      |
| 5     | Aug-20 | 826.6                         | 164.0                               | 510                             | 1500.60      |
| 6     | Sep-20 | 1093.9                        | 210.0                               | 510                             | 1813.90      |
| Total |        | 7516.2                        | 1342                                | 3060                            | 11918.20     |

| FLY ASH UTILIZATION REPORT FROM APRIL , 2020 TO SEPTEMBER, 2020 ( 4x600 MW) |                             |                                  |                          |                 |                 |                               |
|-----------------------------------------------------------------------------|-----------------------------|----------------------------------|--------------------------|-----------------|-----------------|-------------------------------|
| Month                                                                       | Ash generation<br>( Tonnes) | Utilization of Fly Ash ( Tonnes) |                          |                 |                 | Total utilization<br>(Tonnes) |
|                                                                             |                             | Supply to<br>Cement<br>Plant     | Brick<br>making<br>plant | Land<br>Filling | Mine<br>filling |                               |
| Apr-20                                                                      | 161537                      | 0                                | 224                      | 51356           | 22496           | 74076                         |
| May-20                                                                      | 248003                      | 0                                | 1770                     | 17695           | 45885           | 65350                         |
| Jun-20                                                                      | 241709                      | 0                                | 793                      | 1500            | 37477           | 39770                         |
| Jul-20                                                                      | 216839                      | 297                              | 757                      | 0               | 45834           | 46888                         |
| Aug-20                                                                      | 200379                      | 1439                             | 378                      | 0               | 40266           | 42084                         |
| Sep-20                                                                      | 246071                      | 0                                | 818                      | 0               | 44544           | 45363                         |

## सार्वजनिक सूचना

सर्वसाधारण को सूचित किया जाता है कि जिंदल पावर लिमिटेड, बाम - तमनार, जिला - रायगढ़ (सारंगढ़) 100 किमी के दायरे में स्थित राखड़ उपयोग करने वाली इकाइयों को मुफ्त फ्लाई/बॉटम ऐश की आपूर्ति की जाएगी तथा 100-300 किमी परिधि में स्थित राखड़ उपयोग करने वाली इकाइयों को परिवहन की लागत उपयोगकर्ता और कंपनी के बीच समान रूप से साझा की जाएगी। इच्छुक व्यक्ति/इकाइयां जिंदल पावर लिमिटेड के ऐश उपयोग विभाग में सभी संबंधित दस्तावेजों के साथ अनुरोध पत्र प्रस्तुत कर सकते हैं।

Hitkada 4.11.2020

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## Public Notice

It is notified for the information that Jindal Power Ltd is ready to supply the fly ash free of cost to all fly ash product manufacturers in the range of 100 km and beyond 100 km and up to 300 km range cost of fly ash transportation will be shared by both the parties i.e. JPL and user. All interested parties can contact in ash utilization cell of JPL with required documents in the working hours of any