# Acknowledgement

| Proposal Name                     | NTPC Ltd., Sipat Super Thermal Power Station (Stage-I, 3 x 660 MW) |
|-----------------------------------|--|
| Name of Entity / Corporate Office | NTPC Ltd.,   |
| Village(s)                        | N/A  |
| District                          | DILACDID   |

#### **District** BILASPUR

| Proposal No.                  | J.13011/10/96-IIA.II(T) |
|-------------------------------|-------------------------|
| Plot / Survey / Khasra<br>No. | N/A                     |
| State                         | CHHATTISGARH            |
| MoEF File No.                 | J.13011/10/96-IIA.II(T) |

| Category                  | Thermal Projects |
|---------------------------|------------------|
| Sub-District              | N/A              |
| Entity's PAN              | *****0255D       |
| Entity name as per<br>PAN | NTPC LIMITED     |

# **Compliance Reporting Details**

**Reporting Year** 2025

Compliance status of EC

Remarks (if any) Stage-I letter dated

22.02.1999

**Reporting Period** 01 Jun(01 Oct - 31 Mar)

# **Details of Production and Project Area**

Name of Entity / Corporate Office NTPC Ltd.,

|              | Project Area as per EC Granted | Actual Project Area in Possession |
|--------------|--------------------------------|-----------------------------------|
| Private      | 0 GRE                          | 938.51                            |
| Revenue Land | 0                              | 801.22                            |
| Forest       | 0                              | 28.47                             |
| Others       | 1773.51                        | 0                                 |
| Total        | 1773.51                        | 1768.2                            |

# **Production Capacity**

| Sr. no | Product<br>Name | units | Valid Upto | Capacity | Production last year | Capacity as per CTO |
|--------|-----------------|-------|------------|----------|----------------------|---------------------|
| 1      | Electricity     | MW    | 30/11/2025 | 1980     | 14385.87<br>MU       | 1980                |

# **Conditions**

## **Specific Conditions**

| Sr.No.                         | Condition Type  | Condition Details   |                     |
|--------------------------------|---|---|---------------------|
| 1                              | AIR QUALITY<br>MONITORING AND<br>PRESERVATION   | (ii) Two stacks of height 275 m with two flues in each continuous monitoring facility should be installed. Exit should be maintained at 23.42 m/sec as the predictions based on the same.   | velocity            |
| Two stac                       | for Unit-III of Stage-I is installed in s   | nit- I and II of Stage- I) are installed in stack no 1 and stack no 2. Online Continuous Monitoring System Minimum Exit velocity is being maintained at 23.42   | Date: 10/05/2025    |
| 2                              | AIR QUALITY<br>MONITORING AND<br>PRESERVATION   | (iii) Electrostatic Precipitator having efficiency of no 99.8% should be installed and it should be ensured that emission would not exceed the prescribed limit of 100 Adequate space for Flue Gas Desulphurization Plant sh provided in the plant layout for its installation if require | mg/Nm3.             |
| ESP high 50 mg/N installation  | lm3. <mark>Space for Flue</mark> gas desulphurizat  | stalled and particulate emission is maintained within ion plant has been provided in the layout for ification 07.12.2015, to curb SO2 emission, FGD has I.  | Date: 10/05/2025    |
| 3                              | WATER QUALITY MONITORING AND PRESERVATION   | (iv) Closed Circuit Cooling Device with Induced Dra<br>provided and it should be ensure that only minimum we<br>for make-up purposes.   |                     |
| Closed (                       | <b>Ibmission:</b> Complied Circuit Cooling System with Induced I r balance diagram is drawn for makeu                           | Draft Cooling Towers are provided. Minimum water as up uses.  | Date: 10/05/2025    |
| 4                              | Noise Monitoring & Prevention   | (v) Noise level should be limited to 85 d(B)A and reg maintenance of equipments be undertaken. For people area of generator halls and other noise areas, ear plugs provided.  | working in tl       |
| Individu                       |   | 85 dB (A) noise limits. Maintenance of equipment is rovided to people working in the high noise area.   | Date: 10/05/2023    |
| 5                              | GREENBELT   | (vii) Afforestation should be undertaken covering are and the programme should be implemented in a phased norm of 1500-2000 trees per ha should be followed. The Afforestation plan should be submitted by 31st March   | l manner. A         |
| A detaile<br>MOEF v<br>program | vide letter dated 19.08.1999. In addition<br>me at project site, Township and surro<br>so far in plant greenbelt area, ash dyke | es, density along with the map has been submitted to on, NTPC Sipat is undertaking extensive afforestation ounding areas. More than 4.6 Lakhs saplings have been e area, along MGR track, township and Make up water  | Date:<br>10/05/2025 |
|                                |   | (viii) Coal should be used @ 10 MT/ year for Stage-I  | with Sulphu         |

#### PPs Submission: Complied

MOEFandCC vide EC amendment letter J-13011/10/1996-IA.II (T) dated 08.09.2014 has permitted to use coal with sulphur content not exceeding 0.40 percentage. Revised condition is being complied. Moreover, FGD installation work has been completed in all three Units of Stage - I (3 x 660 MW).

Date: 10/05/2025

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#### AIR QUALITY MONITORING AND PRESERVATION

(xii) Keeping in view the location of Sonthi Pahar Reserved Forest, additional Monitoring Station should be installed at the site to assess the ambient air quality. Monitoring should be initiated immediately to ascertain the project status and the scenario after commissioning of the project. A special study should be undertaken to ascertain impact of SO2 on the flora in the project impact zone particularly the forest patches.

#### PPs Submission: Complied

Ambient Air Quality monitoring at Sonthi Pahar reserve forest is continued since inception of the plant. SO2 values at Sonthi Pahar Reserve Forest is well within permissible limit stipulated for ecologically sensitive area. Study on terrestrial ecology was completed in the year 2002 and thereafter in 2016-17. The studies concluded that effect of NTPC- Sipat plant operation on Eco system is negligible.

Date: 10/05/2025

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#### MISCELLANEOUS

(xiv) Details of survey report on socio-economic impact of project affected families being carried out by Indian Institute of Technology, Kanpur should be submitted to the Ministry along with details rehabilitation plan by March 1999. Option should be extended to the habitants of Kaudia village for shifting to other suitable place, if they so desire. R&R should be undertaken in consultation with the State Government and affected population

#### **PPs Submission:** Complied

The detailed socio-economic report by Indian Institute of Technology, Kanpur has been submitted to MOEF vide letter dated 24.08.2000. The RAP prepared in consultation with the representatives of the affected families /Sate Govt. has also been submitted to MOEF vide letter dated 24.08.2000 and concurred by MOEF. RandR activities had been completed in Feb'2007. Copy of MoM is attached.

Date: 10/05/2025

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#### WATER QUALITY MONITORING AND PRESERVATION

(xv) All effluents generated in various plant activities should be collected in the Central Effluent Treatment Plant and treated to ensure adherence to specified standards of discharge before its release in Lilagarh River. The concept of zero discharge should be adapted to a maximum possible extent.

#### PPs Submission: Complied

The concept of Zero Liquid Discharge (ZLD) is being maintained through recycle and reuse of treated effluent. No effluent is discharged outside the plant.

Date: 10/05/2025

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#### AIR QUALITY MONITORING AND PRESERVATION

(xvi) Regular monitoring for SPM, SO2, NOx around the power plant may be carried out and records maintained. A Monitoring Station should be established near Sonthi Pahar forest in NE direction of the power plant.

#### **PPs Submission:** Complied

Regular monitoring of AAQ is being carried out around the plant. Ambient air quality is being monitored near Sonthi Pahar forest area since inception of plant. Records are being maintained. Copy of Stack, Ambient Air Quality, Surface Water, Ground Water and noise monitoring report from October to March 2025 period are attached.

Date: 10/05/2025

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#### **MISCELLANEOUS**

(ix) As per the proposal submitted for Ash Utilization, it should be ensured that fly ash is used in cement industry, brick making and in raising the ash dyke etc. Efforts should also be made in the area of mine filling, land development and agriculture etc. For brick making,

about 50 acres of land with all infrastructure facilities should be earmarked. Full fly ash utilization should be ensured at the end of 9th year from the date of commissioning of the project.

#### PPs Submission: Complied

Fly ash is supplied to fly ash brick industries, Cement Industries. Pond ash is supplied in NHAI highway projects, Low lying area development. NTPC Sipat is also carrying out backfilling of Manikpur, Bishrampur and Dugga mine voids Two fly ash brick plants of total capacity 3.2 lakhs brick per day are operational. Fly ash produced in NTPC Sipat fly ash brick plant are BIS certified. A Light Weight Aggregate pilot plant has been set up to explore a new avenue of ash utilization which may substitute natural aggregate in construction sector in future and would help in conservation of natural resources. About 19.14 acre of land area is already in use for ash based products. Further, EC exemption issued for 50 acres land condition on 24.12.2021 with the stipulation that Afforestation through Miyawaki technique shall be carried out in 10 acres of land in Bilaspur district, preferably within 10 km from plant boundary. Accordingly, NTPC Sipat has completed plantation of 32,000 plants through Miyawaki plantation at Uchchbatti village. Fly ash utilization is being complied as per MoEF and CC notification dated 31.12.2021 and its amendment 30.12.2022. Ash Utilization 101.26 in 20223-24 and 102.13 percentage in FY 2024-25 achieved.

Date: 10/05/2025

#### General Conditions

| Sr.No.  | Condition Type  | Condition Details  |  |
|---|---|--|--|
| 1   | MISCELLANEOUS   | (i) All the conditions stipulated by the Madhya Prade Pollution Control Board vide their letter No. 3574/TS/N dated 5th March 1997 should be strictly implemented  |  |
|   | ubmission: Complied onditions stipulated in NOC issued b  | by MPPCB are complied.   | Date: 10/05/2025                           |
| 2   | AIR QUALITY<br>MONITORING AND<br>PRESERVATION   | (vi) For controlling fugitive dust, regular sprinkling of handling and other vulnerable areas of the plant should  |  |
| water sp                                      | <b>Ibmission:</b> Complied rinkling in vulnerable areas of the poto control fugitive dust. Complied   | ower plant including Coal Handling and ash dyke Area   | Date: 10/05/2025                           |
| 3   | Human Health Environment  | (x) Ash Pond design should be on similar lines to the for Talcher Super Thermal Power Project, Orissa. In the operative lagoon, the layer of earth / Bottom ash should over the ash disposal area so that fugitive dust could be addition, for dust suppression Sprinklers should also be Special care should be taken to avoid any inconvenience. | e non- d be spread controlled. I provided. |
|   |   | of Kaudia Village, which is near the ash disposal area.  | te to residents                            |
| Ash disp<br>villages.<br>suppress<br>rain gun | Sprinklers are provided in ash dyke ion various other initiatives are taken   |  | Date: 10/05/2025                           |
| Ash disp<br>villages.<br>suppress<br>rain gun | sosal area is away from Kaudia villag<br>Sprinklers are provided in ash dyke<br>ion various other initiatives are taken<br>s, covering ash layer with tarpaulin, of | of Kaudia Village, which is near the ash disposal area.  ge. There is no inconvenience to the residents of nearby area for dust suppression. Moreover, to enhance dust n such as ponding, Beshram plantation, installation of  | Date:<br>10/05/2025<br>for coal            |

|                | stipulation minimum forest land had been accorded by MOEF vide l | and been acquired. The Forest clearance (diversion of forest letter date 30.06.2004.   | 10/05/2025                                    |
|----------------|--|--|---|
| 5              | Human Health Environment   | (xiii) The impact on terrestrial ecology (flora and fa studied by properly estimating the number of trees to project area and its impact on fauna. The felling of tre properly phased and project layout should be so desig minimum felling.   | be felled in the<br>es should be              |
| The stu        | Submission: Complied dy had been completed. The layou of trees.  | ut of the project had been designed ensuring minimum   | Date: 10/05/2025                              |
| 6              | MISCELLANEOUS  | (xvii) Full cooperation should be extended to the Sc Officers from the Regional office of the Ministry at B CPCB / the SPCB who would be monitoring the compenvironmental status. Complete set of impact assessment the Management Plans should be forwarded to the Refor their use during monitoring.               | hopal / the<br>pliance of<br>ent report and   |
|                | Submission: Complied operation is extended to the Minis          | try/CPCB/CECB officials.   | Date: 10/05/2025                              |
| 7              | MISCELLANEOUS  | 2. The proposal regarding setting up of 3000 MW S Thermal Power Project at Sipat, Bilaspur District, Ma has been examined from environmental angle on the information submitted by the proponents. Environmental however, accorded for 2000 MW capacity as Stage-I simplementation of following terms and conditions | dhya Pradesh<br>basis of<br>ntal clearance i  |
| MOEF           |  | 30th April 2002 have accorded clearance to change in unit and 660 MW and fuel characteristics.   | Date: 10/05/2025                              |
| 8              | MISCELLANEOUS  | 3. The Ministry reserves the right to revoke the clea conditions stipulated are not implemented to the satisf Ministry.  |   |
| PPs S<br>Noted | Submission: Complied   | CGREE  | Date: 10/05/2025                              |
| 9              | MISCELLANEOUS  | 4. In case of any deviation or alteration in the project those submitted to this Ministry for clearance, a fresh should be made to the Ministry to assess the adequacy conditions imposed and to add additional environmen measures required, if any.  | clearance of the                              |
| PPs S<br>Noted | Submission: Complied   |  | Date: 10/05/2025                              |
| 10             | MISCELLANEOUS  | 5. The above stipulations would be enforced among the Water (Prevention and Control of Pollution) Act, (Prevention & Control of Pollution) Act, 1981, the En (Protection) Act, 1986, the Public Liability Insurance Assessment Notification of January 1994 and its amen   | 1974, the Air<br>vironmental<br>Act, the Impa |
|                |  |  |   |

| Noted | 10/05/2025 |   |
|-------|------------|---|
|       |            | J |

# Visit Remarks

| Last Site Visit Report Date: | 13/02/2024 |
|------------------------------|------------|
| Additional Domarks           |            |



# Acknowledgement

| Proposal Name                     | NTPC Ltd., Sipat Super Thermal Power Station, Stage-I (3 x 660 MW) |
|-----------------------------------|--|
| Name of Entity / Corporate Office | NTPC Ltd.,   |
| Village(s)                        | N/A  |
| District                          | DII A CDI ID   |

### **District** BILASPUR

| Proposal No.                  | J. 13011/10/96-IA.II(T) |
|-------------------------------|-------------------------|
| Plot / Survey / Khasra<br>No. | N/A                     |
| State                         | CHHATTISGARH            |
| MoEF File No.                 | J.13011/10/96-IA.II(T)  |

| Category                  | Thermal Projects |
|---------------------------|------------------|
| Sub-District              | N/A              |
| Entity's PAN              | *****0255D       |
| Entity name as per<br>PAN | NTPC LIMITED     |

# **Compliance Reporting Details**

**Reporting Year** 2025

Remarks (if any)

Second EC amendment

30.04.2002

**Reporting Period** 01 Jun(01 Oct - 31 Mar)

# **Details of Production and Project Area**

Name of Entity /
Corporate Office

NTPC Ltd.,

|              | Project Area as per EC Granted | <b>Actual Project Area in Possession</b> |
|--------------|--------------------------------|--|
| Private      | 0                              | 938.51                                   |
| Revenue Land | 0                              | 801.22                                   |
| Forest       | 0                              | 28.47                                    |
| Others       | 1773.51                        | 0  |
| Total        | 1773.51                        | 1768.2                                   |

# **Production Capacity**

| Sr. no | Product<br>Name | units | Valid Upto | Capacity | Production last year | Capacity as per CTO |
|--------|-----------------|-------|------------|----------|----------------------|---------------------|
| 1      | Electricity     | MW    | 30/11/2025 | 1980     | 15091.45<br>MU       | 1980                |

#### **Conditions**

## **Specific Conditions**

| Sr.No. | <b>Condition Type</b> | Condition Details |  |
|--------|-----------------------|-------------------|--|

|   | AIR QUALITY    |
|---|----------------|
| 1 | MONITORING AND |
|   | PRESERVATION   |

3 (i) Use of coal from Dipika Mines should be limited to 9.82 MT for Stage-I with Sulphur content not exceeding 0.36%.

#### PPs Submission: Complied

MOEF vide EC amendment letter J-13011/10/1996- IA.II (T) dated 08.09.2014 has permitted to use coal with sulphur content not exceeding 0.40 percentage. Revised condition is being complied.

Date: 10/05/2025

2 AIR QUALITY
2 MONITORING AND
PRESERVATION

3 (ii) Since maximum concentration for SO2 near Sonthi Pahar is likely to be close to permissible levels for sensitive area, continuous monitoring and analysis of ambient air quality in the region should be undertaken during planning, construction and operational phase of the project.

#### **PPs Submission:** Complied

AAQM is being carried out since inception of the plant. SO2 values are observed far below the stipulated limit prescribed for eco sensitive area. Regular monitoring and records are being maintained.

Date: 10/05/2025

3 AIR QUALITY
MONITORING AND
PRESERVATION

3 (iii) In the event of 98th percentile values for SO2 exceeding prescribed permissible limits for sensitive areas, NTPC should make provision for retrofitting of desulphurization unit for which space is to be provided in the project layout plan.

#### PPs Submission: Complied

Compliance submitted separately.

Space for retrofitting of FGD has already been provided in the layout. Subsequently, in pursuance to the MoEF and CC notification dated 07.12.2015, FGD installation work has been completed in all three Units of Stage - I (3 x 660 MW).

Date: 10/05/2025

#### General Conditions

| Sr.No.   | Condition Type   | Condition Details  |                  |
|----------|--|--|------------------|
| 1        | MISCELLANEOUS  | 3 (iv) Even though entire area of 4382.44 acres is proacquired for ultimate station capacity of 3000 MW, no Stage-II of the project with 660 MW units should be unwithout environmental clearance.             | work on          |
| Environi | abmission: Complied<br>mental Clearance for Stage- II (2/5/2002. IA-II (T) dated 08.06.2 | 2 x 500 MW) had been obtained from MOEF vide Letter No. 2004.  | Date: 10/05/2025 |
| 2        | MISCELLANEOUS  | 3 (v) As lining of ash pond is not envisaged in the de project due to the soil profile of the region, no earth she removed from the proposed ash disposal area for any programmer or construction of ash dyke. | ould be          |
| This con | <b>abmission:</b> Complied dition is relaxed vide letter no. J letter is attached.       | J-13011/10/1996-IA-II(T)(Pt) Dt 20.07.2006 of MOEF.  | Date: 10/05/2025 |
| 3        | MISCELLANEOUS  | 3 (vi) All the conditions stipulated vide Ministry's le<br>number dated 22nd February 1999 should be strictly in   |                  |
| PPs Su   | ubmission: Complied  | •  | Date: 10/05/2025 |

| Visit Remarks                |     |
|------------------------------|-----|
| Last Site Visit Report Date: | N/A |
| Additional Remarks:          |     |



### Acknowledgement

| Proposal Name                     | NTPC Ltd., Sipat Super Thermal Power Station, Stage-I (3 x 660 MW) |
|-----------------------------------|--|
| Name of Entity / Corporate Office | NTPC Ltd.,   |
| Village(s)                        | N/A  |
| District                          | BILASPUR   |

| Proposal No.                  | J-13011/10/1996-<br>IA.II(T) |
|-------------------------------|------------------------------|
| Plot / Survey / Khasra<br>No. | N/A                          |
| State                         | CHHATTISGARH                 |
| MoEF File No.                 | J-13011/10/1996-<br>IA.II(T) |

| Category                  | Thermal Projects |
|---------------------------|------------------|
| Sub-District              | N/A              |
| Entity's PAN              | *****0255D       |
| Entity name as per<br>PAN | NTPC LIMITED     |

# **Compliance Reporting Details**

**Reporting Year** 2025

Remarks (if any) Stage I Third EC amendment dt 08.09.2014

**Reporting Period** 01 Jun(01 Oct - 31 Mar)

# **Details of Production and Project Area**

Name of Entity / Corporate Office NTPC Ltd.,

|              | Project Area as per EC Granted | Actual Project Area in Possession |
|--------------|--------------------------------|-----------------------------------|
| Private      | 0                              | 938.51                            |
| Revenue Land | 0                              | 801.22                            |
| Forest       | 0                              | 28.47                             |
| Others       | 1773.51                        | 0                                 |
| Total        | 1773.51                        | 1768.2                            |

# **Production Capacity**

| Sr. no | Product<br>Name | units | Valid Upto | Capacity | Production last year | Capacity as per CTO |
|--------|-----------------|-------|------------|----------|----------------------|---------------------|
| 1      | Electricity     | MW    | 30/11/2025 | 1980     | 15091.45<br>MU       | 1980                |

# **Conditions**

#### **Specific Conditions**

| Sr.No.   | Condition Type  | Condition Details   |   |
|--|---|---|---|
| 1  | Human Health Environment  | 3 (i) The transportation of coal shall be by rail only  |   |
|  | abmission: Complied eentage coal transportation is carried o  | ut through Rail only.   | Date: 10/05/2025  |
| 2  | Human Health Environment  | 3 (iii) A long term study on radioactivity and heavy on coal to be used shall be carried out through a repute Thereafter mechanism for an in-built continuous moni radioactivity and heavy metals in coal and fly ash (incash) shall be put in place.   | ed institute.<br>toring of  |
| Comprel is concluded to the conclusion of the co | aded that the radiation levels in and are<br>comparable with the National average<br>vater / surface water / drinking water s<br>ory Board (AERB) and World Health of<br>The activity concentration of naturally<br>ha is comparable to the national backgray/instruments available for in built concentration and fly ash (including bottom as | en completed by BARC Mumbai in March 2018, and it bound the Sipat Super Thermal Power Station of NTPC values. The naturally occurring radionuclide levels in amples is observed well below the Atomic Energy Organization (WHO) prescribed limit / guideline occurring radionuclides in soil, food matrices, flora round levels. Since, there was no ontinuous monitoring of radioactivity and heavy sh). EC exemption was put up before ministry. MoEF on vide EC amendment letter 24.12.2021 with regular   | Date: 10/05/2025  |
| 3  | Human Health Environment  | 3 (iv) Mercury emission shall also be monitored on p  | periodic basis.   |
|  | ubmission: Complied emission is measured monthly and va   | alues are far below the stipulated limits.  | Date: 10/05/2025  |
| 4  | LAND RECLAMATION  | 3 (ix) Fly ash shall not be used for agriculture purpose void filling will be undertaken as an option for ash util adequate lining of mine with suitable media such that shall takes place at any point of time. In case, the option filling is to be adopted, prior detail study of soil characteristic area shall be undertaken from an institute of reputadequate clay lining shall be ascertained by the state purposed by the state purposed and implementation done in close co-ordination pollution control board.   | ization without<br>no leachate<br>on of mine void<br>eteristics of the<br>ate and<br>ollution control                                   |
| Vide ON guidelin   |   | 28.08.2019, MoEF and CC, have issued fresh in abandoned mines. Station is complying to the  | Date: 10/05/2025  |
| 5  | MISCELLANEOUS   | (2) The matter was placed before the expert Appraisa (Thermal power) in its 8th meeting held during Januar In acceptance of the recommendation of the expert approximation/clarification furnished by you, with respect mentioned power project, the ministry accord amendment EC for sourcing coal from operating mine of SECL, where Sulphur content of 0.4% instead of sourcing from Diping Sulphur content not exceeding 0.36% and transportation open wagons with suitable measures instead of closed depending on the availability. However, permission for of coal by open wagons is accorded only for one year stipulation that within one year, NTPC will come out was carrying coal in a cleaner way. | y 9-10, 2014.  oraisal  et to the above tent in the said ith a maximum taka mines with on of coal by wagons, or transportation with the |

#### PPs Submission: Complied

Coal is sourced from Dipka mines which bears sulphur content up to 0.40 percentage. Further, it is submitted that FGD installation work is in progress in all five units to curb the SO2 emission. Earlier, EC amendment issued vide letter no J-13011/10/1996-IA.II(T) on 09.10.2019 waived the condition of transportation of coal with tarpaulin covered wagons with certain conditions. Subsequently, in a matter OA No. 459/2018, Rashmi Singh V/S NTPC Sipat and Ors pending before NGT, Principal Bench New Delhi, the tribunal directed to comply the coal transportation by tarpaulin covering. NTPC Sipat challenged this order in Hon'ble Supreme Court on the ground that waiver has been granted in EC through an amendment issued by MoEF percentage CC on 09-10-2019. Hon'ble SC had ordered for tarpaulin covering of coal wagons within one month time. MOEF and CC vide notification dated 21-05-2020 also stipulated for transportation of coal by covered wagons. Complying to the order of Hon'ble Supreme Court, NTPC Sipat has started coal transportation by tarpaulin covered wagons. The following problems are being encountered. Manpower deployed for wagon covering is exposed to high level of risk as activity is manual, the workmen involved has to reach to the top of wagon and it is of round the clock activity. There is the threat of wrapping up pedestrian / cattle passing by the side of railway track, into the ripped off sheets. Other issues like theft of Tarpaulin sheets from coal wagons have been reported on regular basis on the way from Dipika mine to Sipat plant, which is really a danger to lives of miscreants involved and causing loss of material to NTPC as well. Rake Cycle time has increased by about one hour as a result of wagon covering activity which causes delay in availability of empty rake at mine end.

Date: 10/05/2025

6 Corporate Environmental Responsibility

3 (xii) For proper and periodic monitoring CSR activities, a CSR committee or a social audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.

#### PPs Submission: Complied

Social Impact Assessment is carried out regularly after every three years. Last, it was carried out in 2022-23 by IRMA.

Date: 10/05/2025

7 Corporate Environmental Responsibility

3 (xi) CSR schemes should address Public Hearing issues and shall be undertaken based on need base assessment in and around the villages within 5 Km of the site and in constant consultation with the village Panchayat and the district administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Development of fodder farm, fruit bearing orchard, vocational training etc. can form a part of such programmes. Company shall provide separate budget for community development activities and income generating programmes. Vocational training programmes for possible self-employment and jobs shall be important to identify villagers free of cost.

#### **PPs Submission:** Complied

Education, Girl Empowerment, Health, infrastructure development, pond rejuvenation, skill development are part of regular CSR activities. Separate budget is kept for CSR activities every year.

Date: 10/05/2025

#### **General Conditions**

| Sr.No. | Condition Type                  | Condition Details   |
|--------|---------------------------------|---|
| 1      | ENERGY PRESERVATION<br>MEASURES | 3 (ii) Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of the implementation shall be submitted periodically to the regional office of the ministry. |

| Total                           | <b>Submission:</b> Complied 1170 kW rooftop solar is installed. Coawarded.                   | ntract for 26 MW floating solar project work has  | Date: 10/05/2025                                   |
|---------------------------------|--|---|--|
| 2                               | Human Health Environment   | 3 (v) Fugitive emissions shall be controlled to preve agriculture or non-agriculture land.  | ent impact on                                      |
| Fugiti<br>If any<br>Ipoen       | dry patch is formed due to operational raise carnia (Besharam), installation of raise        | re by maintaining adequate water level in the ash ponds. I constraints, following measures are taken like planting ain gun / sprinkler system, covering ash layer with inkling with water tankers as per actual requirement.  | Date: 10/05/2025                                   |
|                                 | WATER QUALITY<br>MONITORING AND<br>PRESERVATION  | 3 (vi) No ground water shall be extracted for use in power plant even in lean season. No water bodies inc drainage system in the area shall be disturbed due to a associated with the setting up/operation of the power   | luding natural activities                          |
| Water                           |  | c) of Hasdeo river as per water agreement with Water and water is extracted for plant operations.   | Date: 10/05/2025                                   |
| l                               | WATER QUALITY MONITORING AND PRESERVATION  | 3 (vii) Monitoring of surface water quantity and quebe regularly conducted and records maintained. The shall be submitted to the ministry regularly. Further, shall be located between the plant and drainage in the flow of ground water and records maintained. Monitometals in ground water shall be undertaken. | monitored data<br>monitoring point<br>direction of |
| Surface<br>MoEF<br>monit<br>ZLD | F <mark>and CC. Regular</mark> monitoring is carried toring also being done on monthly basis | regularly monitored and communicated to CECB and d out in surrounding 11 villages. Heavy metal s. Records are maintained. Sipat is zero liquid discharge harged either from plant and dyke area. Air, water, stack,   | Date: 24/05/2025                                   |
| ,                               | WATER QUALITY MONITORING AND PRESERVATION  | 3 (viii) Minimum required environmental flow suggeompetent authority of the state Govt. shall be maintachannel/Rivers (as applicable) even in lean season.  |  |
| Water                           | ttisgarh. NTPC Sipat is drawing lesser   | agreement with Water Resources Deptt, Govt of quantity of water than the allocated quantity. Station had ving present allocation 93 MCM against original  | Date: 10/05/2025                                   |
|                                 |  | ent with CG Water resource department.  |  |
| lloca                           |  |   | ash pond over                                      |
| alloca  PPs  Planta             | GREENBELT  Submission: Complied  | ent with CG Water resource department.  3 (x) Green belt shall also be developed around the   | Date:  |

|           |  | improven   | nent/mitigation measures.  |  |
|-----------|--|--|--|--|
| A dedic   | ubmission: Complied<br>ated Environmental Management G<br>es as per the requirement. | roup is already  | set up with suitable and experienced   | Date: 10/05/2025                                       |
| 8         | MISCELLANEOUS  | environme<br>all levels<br>compliance  | The project proponent shall formulate a well ent policy and identify and designate responsof its hierarchy for ensuring adherence to the ewith the conditions stipulated in this clean icable environmental laws and regulations.  | sible officers at e policy and                         |
|           | ubmission: Complied s a corporate has a well laid written                            | Environment  | Policy   | Date: 10/05/2025                                       |
| 9         | Statutory compliance   | 31st marc<br>proponent<br>under the<br>subsequer<br>along with<br>conditions | the environment statement for each financial in form-V as is mandated to be submitted to the concern state pollution control board Environment (protection) rule, 1986, as amountly, shall also to be put on the website of the the status of compliance of Environmental is and shall also be sent to the respective region by email. | by the project as prescribed ended e company clearance |
|           |  | year. state <mark>me</mark> n  | t for the year 2023-24 is submitted on   | Date: 10/05/2025                                       |
| 10        | MISCELLANEOUS  | no. dated  | ther conditions mentioned in this ministry's 22.02.1999 and its amendment dated 30.04. e same, as applicable.  |  |
|           | ubmission: Complied nd complied  |  | St. See  | Date: 10/05/2025                                       |
|           |  | " Drects 1   | f She to   |  |
|           |  | Visit R  | emarks   |  |
| Last Site | Visit Report Date:   |  | N/A  |  |

Last Site Visit Report Date: N/A
Additional Remarks:

# Acknowledgement

| Proposal Name                     | NTPC Ltd., Sipat Super Thermal Power Station, Stage-I (3 x 660 MW) |
|-----------------------------------|--|
| Name of Entity / Corporate Office | NTPC Ltd.,   |
| Village(s)                        | N/A  |
| District                          | DILACDID   |

**District** BILASPUR

| Proposal No.                  | No.J-13011/10/1996-<br>IA.II(T) |
|-------------------------------|---------------------------------|
| Plot / Survey / Khasra<br>No. | N/A                             |
| State                         | CHHATTISGARH                    |
| MoEF File No.                 | No.J-13011/10/1996-<br>IA.II(T) |

| Category                  | Thermal Projects |
|---------------------------|------------------|
| Sub-District              | N/A              |
| Entity's PAN              | *****0255D       |
| Entity name as per<br>PAN | NTPC LIMITED     |

# **Compliance Reporting Details**

**Reporting Year** 2025

Compliance status of

Remarks (if any) Fourth, Fifth and sixth EC

amendment Stage-I

**Reporting Period** 01 Jun(01 Oct - 31 Mar)

# **Details of Production and Project Area**

Name of Entity / Corporate Office

NTPC Ltd.,

|              | Project Area as per EC Granted | Actual Project Area in Possession |
|--------------|--------------------------------|-----------------------------------|
| Private      | 0                              | 938.51                            |
| Revenue Land | 0                              | 801.22                            |
| Forest       | o <sup>e</sup> -Payments       | 28.47                             |
| Others       | 1773.51                        | 0                                 |
| Total        | 1773.51                        | 1768.2                            |

# **Production Capacity**

| Sr. no | Product<br>Name | units | Valid Upto | Capacity | Production last year | Capacity as per CTO |
|--------|-----------------|-------|------------|----------|----------------------|---------------------|
| 1      | Electricity     | MW    | 30/11/2025 | 1980     | 15091.45<br>MU       | 1980                |

#### **Conditions**

|                | onditions  |  |  |
|----------------|--|--|--|
| Sr.No.         | Condition Type   | Condition Details  |  |
| 1              | AIR QUALITY<br>MONITORING AND<br>PRESERVATION              | 2 (i) Top surface of the coal wagons shall be complete with tarpaulin sheet/Cloth so that coal will not get expeatmosphere and becomes secondary emissions. This was fugitive dust emissions during the transport. Water sprace on the top surface of coal at loading point before tarpaulin sheet. Due safety procedures shall be followed covered sheet does not open up and fly away during trawill endanger safety of nearby people, agricultural field sprinkling measures as proposed at loading and unload be continued. Progress report of implementation shall this ministry and concerned regional office every 3 more | osed to ill avoid inkling shall covering with d so that the ansport which ds, etc. Water ling point sha be submitted |
|                | ubmission: Complied ipat has started coal transportation b | y tarpaulin covered wagons from August 2020.   | Date: 13/05/2025   |
| 2              | AIR QUALITY<br>MONITORING AND<br>PRESERVATION              | 2 (ii) AAQ monitoring within 1 km on either side of proximity to nearby habitation, shall be continued once and the progress report shall be submitted.  |  |
| AAQ mobeing do |  | six locations by MoEFandCC approved third party is rage values are with in limit of 24 hr average. Reports   | Date: 26/05/2025   |
| 3              | Human Health Environment                                   | 2 (iii) Land use study shall be carried out by latest IR on 500m either side along the rail line from loading pounloading point.   |  |
|                | ubmission: Complied e study has been completed by Soil a   | and Land Use Survey of India in July 2018.   | Date: 13/05/2025   |
| 4              | Human Health Environment                                   | 2 (iv) Health survey study of the local people shall be<br>The report should clearly bring out the impact on surre<br>agriculture/crop patterns, percentage of yield, public he<br>open wagon coal transportation, etc.  | ounding fores  |
| A health       | , wherein it is observed that prevaler                     | by Chhattisgarh Institute of Medical Sciences (CIMS) area is similar to elsewhere in the   | Date: 13/05/2025   |
| 5              | Human Health Environment                                   | 2 (v) As stipulated by the earlier EAC on 31.03.2016 study alternative methodologies/technologies being uti abroad, to prevent coal dust blow from moving open w coal, if any. The results of this study should be submitt year.   | lized includir<br>agons carryi   |
|                | ubmission: Complied on modified in EC amendment issued     | d on 09.10.2019. Status given therein.   | Date: 13/05/2025   |
| 6              | GREENBELT  | 2018 5 (ii) Dense avenue plantation shall be develop side of the track wherever habitations/agricultural land consultation with local forest department to minimize  | ls exists in   |

**PPs Submission:** Complied

Approximately, 73,918 No.s of plantations have been raised through Chhattisgarh Rajya Van Vikas Nigam Ltd. so far.

Date: 13/05/2025

7

AIR QUALITY MONITORING AND PRESERVATION 2018 5 (iii) AAQ monitoring within 1 km on either side of track, close proximity to nearby habitation, shall be continued once in a quarter and the progress report shall be submitted.

PPs Submission: Complied

AAQ monitoring along MGR within 1 km at six locations by MoEFandCC approved third party is being done. Records are maintained. All average values are with in limit of 24 hr average.

Date: 26/05/2025

8

**MISCELLANEOUS** 

2018 5 (iv) Land use study shall be carried out by latest IRS satellite map on 500 m either side along the rail line from loading point to unloading point.

PPs Submission: Complied

All three (03) season image data have been received by SLUSI from NRSA. Final Report submitted on 25.06.2018. As per recommendation of the study, large scale plantation along MGR track has already been taken up.

Date: 13/05/2025

9

Human Health Environment

2018 5 (v) Health survey study of the local people shall be carried out. The report should clearly bring out the impact on surrounding forests, agriculture/crop patterns, percentage of yield, public health due to open wagon coal transportation, etc.

PPs Submission: Complied

A health study was completed in Nov-2017 by Chhattisgarh Institute of Medical Sciences (CIMS) Bilaspur wherein it is observed that prevalence of COPD in study area is similar to elsewhere in the country. Another study was conducted to assess the the impact of coal dust on soil, crop and trees. No significant adverse observations.

Date: 13/05/2025

10

**MISCELLANEOUS** 

2018 5 (vi) As stipulated by the earlier EAC on 31.03.2016, PP should study alternative methodologies/technologies being utilized including abroad, to prevent coal dust blow from moving open wagons carrying coal, if any. The results of this study should be submitted within one year.

PPs Submission: Complied

Condition modified in EC amendment issued on 09.10.2019. Status given therein.

Date: 13/05/2025

11

AIR QUALITY MONITORING AND PRESERVATION 2019 5 (i) As proposed, the water sprinkling at four points viz. loading point, unloading points, ½ km before entry, at 22 km chainage point (Mid Section) shall be carried out to keep the coal wet and to control dust generation.

**PPs Submission:** Complied

NTPC Sipat has started coal transportation by tarpaulin covered wagons from August 2020.

Date: 13/05/2025

#### **General Conditions**

| Sr.No. | Condition Type | Condition Details  |
|--------|----------------|--|
| 1      | MISCELLANEOUS  | 2 (v) All other conditions mentioned in the Ministry's letter of even No. dated 22.02.1999 & 14.01.2000 and its, amendments dated 30.04.2002 & 08.09.2014 shall remain the same, as applicable |

| Noted   | Submission: Complied  | 2  | Date: 26/05/2025   |
|---|---|--|--|
| 2   | AIR QUALITY<br>MONITORING AND<br>PRESERVATION   | 2018 5 (i) Top surface of the coal wagons shall be co-covered with tarpaulin sheet/Cloth so that coal will not atmosphere and becomes secondary emissions. This w fugitive dust emissions during the transport. Water spr done on the top surface of coal at loading point before tarpaulin sheet. Due safety procedures shall be followed covered sheet does not open up and fly away during trawill endanger safety of nearby people, agricultural fiel sprinkling measures as proposed at loading and unload be continued. Progress report of implementation shall this ministry and concerned Regional office as part of report.   | t get exposed to<br>ill avoid<br>inkling shall be<br>covering with<br>ed so that the<br>ansport which<br>ds, etc. Water<br>ling point shall<br>be submitted to |
|   | Submission: Complied Sipat had started coal transportation  | on by tarpaulin covered wagons from August 2020.   | Date: 13/05/2025   |
| 3   | MISCELLANEOUS   | 2018 (6) All other conditions mentioned in this Mini even No. dated 22.02.1999, 30.04.2002, 08.09.2014, a shall remain the same, as applicable.  |  |
| PPs S<br>Noted  | Submission: Complied  | THE STATE OF THE PARTY OF THE P | Date: 13/05/2025   |
| 4   | MISCELLANEOUS   | 2019 5 (ii) NTPC being a large consumer of coal, she R&D activity of developing a mechanical sliding of the wagon top which should be easily closed/opened with  | e cloth over<br>mechanical   |
|   | NAIGEBEAN ASSES   | arrangement and should also not hamper loading opera successful, this can be replicated in the country as best practice to prevent air pollution from coal. This will al oxidation.  | environment  |
| PPs \$ 1. NTP develop RDSO Octobe agencie arrange contact RDSO develop EOI for  | Submission: Complied PC Sipat had approached RDSO, the ping a mechanical covering arrange representatives and their authorized 2021. The agency will further does of RDSO has visited the site from the month of RDSO for devin the month of May-22 Oct-22 appment of solution but no response  | successful, this can be replicated in the country as best practice to prevent air pollution from coal. This will al  | environment<br>so prevent<br>Date:   |
| PPs S<br>1. NTP<br>develop<br>RDSO<br>Octobe<br>agencie<br>arrange<br>contact<br>RDSO<br>develop<br>EOI for<br>mechar | Submission: Complied PC Sipat had approached RDSO, the ping a mechanical covering arranger representatives and their authorized at 2021. The agency will further detected the site from the system is not compared other agency of RDSO for devining the month of May-22 Oct-22 are pment of solution but no response or developing mechanized covering | successful, this can be replicated in the country as best practice to prevent air pollution from coal. This will al oxidation.  the wagon designing outfit of Indian Railways for gement on the wagons through a consultancy contract. 2. The agency demonstrated the prototype on 10th and 11th emonstrate the system with improvement. 3. One of the common 02 to 05 Feb-22 and demonstrated the new mechanized utible with our loading unloading system. NTPC has belopment of the mechanized system. A letter was written to cond on 10.01.2023 to depute the other agency for received. 4. Subsequently, NTPC Sipat has published an  | Date: 13/05/2025   |
| PPs S 1. NTP develop RDSO Octobe agencie arrange contact RDSO develop EOI for mechar                                  | Submission: Complied PC Sipat had approached RDSO, the ping a mechanical covering arrangon representatives and their authorized 2021. The agency will further december a street of RDSO has visited the site from the month of RDSO for developing mechanized covering in developing mechanized covering in MGR Wagons.                                 | successful, this can be replicated in the country as best practice to prevent air pollution from coal. This will al oxidation.  The wagon designing outfit of Indian Railways for gement on the wagons through a consultancy contract. 2. The agency demonstrated the prototype on 10th and 11th gemonstrate the system with improvement. 3. One of the point 02 to 05 Feb-22 and demonstrated the new mechanized utible with our loading unloading system. NTPC has gelopment of the mechanized system. A letter was written to an on 10.01.2023 to depute the other agency for received. 4. Subsequently, NTPC Sipat has published an gof wagons, but no response received for developing  2019 (6) All other conditions mentioned in this Mini even No. dated 22.02.1999, 14.01.2000, 30.04.2002, 0   | Date: 13/05/2025   |

| Last Site Visit Report Date:  | N/A |  |  |  |
|---|-----|--|--|--|
| Additional Remarks:   |     |  |  |  |
| Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be |     |  |  |  |



### Acknowledgement

| Proposal Name                     | NTPC Ltd., Sipat Super Thermal Power Station, Stage-I (3 x 660 MW) |
|-----------------------------------|--|
| Name of Entity / Corporate Office | NTPC Ltd.,   |
| Village(s)                        | N/A  |
| District                          | BILASPUR   |

| Proposal No.                  | No.J-13011/10/1996-<br>IA.II(T) |
|-------------------------------|---------------------------------|
| Plot / Survey / Khasra<br>No. | N/A                             |
| State                         | CHHATTISGARH                    |
| MoEF File No.                 | No.J-13011/10/1996-<br>IA.II(T) |

| Category                  | Thermal Projects |
|---------------------------|------------------|
| Sub-District              | N/A              |
| Entity's PAN              | *****0255D       |
| Entity name as per<br>PAN | NTPC LIMITED     |

# **Compliance Reporting Details**

**Reporting Year** 2025

Remarks (if any) EC amendment dt 24.12.2021

**Reporting Period** 01 Jun(01 Oct - 31 Mar)

# **Details of Production and Project Area**

Name of Entity / Corporate Office NTPC Ltd.,

|              | Project Area as per EC Granted | Actual Project Area in Possession |
|--------------|--------------------------------|-----------------------------------|
| Private      | 0 GRE                          | 938.51                            |
| Revenue Land | 0                              | 801.22                            |
| Forest       | 0                              | 28.47                             |
| Others       | 1773.51                        | 0                                 |
| Total        | 1773.51                        | 1768.2                            |

# **Production Capacity**

| Sr. no | Product<br>Name | units | Valid Upto | Capacity | Production last year | Capacity as per CTO |
|--------|-----------------|-------|------------|----------|----------------------|---------------------|
| 1      | Electricity     | MW    | 30/11/2025 | 1980     | 15091.45<br>MU       | 1980                |

# **Conditions**

## **Specific Conditions**

| Sr.No. | <b>Condition Type</b> | Condition Details  |
|--------|-----------------------|--|
| 1      | MISCELLANEOUS         | Dec 2021 7 (i) Fly ash utilization plan shall be adhered, and 100% Ash utilization shall be carried out strictly as per extent rule and regulations of the Ministry. |

#### PPs Submission: Complied

Ash utilization is being complied in pursuance to MoEF and CC notification dated 31.12.2021 and its amendment dated 30.12.2022. 101.26 percentage ash utilization is achieved in FY 2023-24. Ash utilization of 102.11percentage has been achieved in 2024-25. NTPC Sipat is continuously trying to achieve 100 percentage utilization of ash.

Date: 10/05/2025

2 GREENBELT

Dec 2021 7 (iii) 10 acres of land shall be identified outside the project boundary in the Bilaspur district (preferably within 10 km radius of the project cover area) to carry out afforestation using Miyawaki plantation technique with more than 90% survival rate as committed by PP vide letter no. CC:RSE:9518:2021:GEN Dated 23.11.2021.

#### PPs Submission: Complied

32,000 No.s of saplings have been planted through Miyawaki technique in Bhilmi village which is approximately 10 kms away from plant. Plantation Work had been completed in March 2024. Total project cost for plantation and maintenance up to two years is INR 853 lakh.

Date: 13/05/2025

#### General Conditions

| Sr.No.            | Condition Type                                       | Condition Details   |
|-------------------|--|---|
| 1                 | Statutory compliance                                 | Dec 2021 7 (ii) Backfilling in the low-lying area shall be carried out as per the CPCB guidelines.                    |
| PPs Su<br>Complie | abmission: Complied                                  | Date: 10/05/2025  |
| 2                 | MISCELLANEOUS  | Dec 2021 7 (iv) Other conditions of the EC letter dated 22.02.1999, 30.04.2002 and 08.09.2014 shall remain unchanged. |
|                   | abmission: Complied tatus of Compliance submitted so | Date: 10/05/2025  |

#### **Visit Remarks**

| Last Site Visit Report Date: | N/A   |
|------------------------------|---|
| Additional Remarks:          | Status of CCR compliance as on 01.06.2024 submitted to IRO, Raipur is attached. |





# Attachment to condition No 2(xvi) of EC stage I dt 22.02.1999

#### **ANNEXURE-I**

# <u>Table-I: Ambient Air Quality Monitoring</u> Period of Observation 01.04.2024 to 30.09.2024

# **CAAQMS-1** (Track Hopper)

| Month    | PM2.5 | PM10        | SO <sub>2</sub> | NOx  |  |
|----------|-------|-------------|-----------------|------|--|
| MOTILII  |       | <br>[μg/m³] |                 |      |  |
| APR-2024 | 16.5  | 38.5        | 15.2            | 28.0 |  |
| MAY-2024 | 18.0  | 46.4        | 30.5            | 27.9 |  |
| JUN-2024 | 13.9  | 30.0        | 31.8            | 29.2 |  |
| JUL-2024 | 7.8   | 17.4        | 25.5            | 25.2 |  |
| AUG-2024 | 6.7   | 11.3        | 20.6            | 24.4 |  |
| SEP-2024 | 13.7  | 23.2        | 22.2            | 23.8 |  |

## CAAQMS-2 (B-Type)

|           | PM2.5 | PM10  | SO <sub>2</sub> | NOx  |
|-----------|-------|-------|-----------------|------|
| Month     |       |       |                 |      |
|           |       | [μg/r | n³]             |      |
| APR-2024  | 15.0  | 32.0  | 21.4            | 50.0 |
| MAY-2024  | 17.2  | 37.6  | 22.2            | 44.6 |
| JUN-2024  | 12.7  | 28.0  | 23.4            | 40.6 |
| JULY-2024 | 15.0  | 23.3  | 29.7            | 39.9 |
| AUG-2024  | 13.9  | 20.9  | 22.7            | 46.4 |
| SEP-2024  | 14.3  | 26.0  | 23.5            | 32.9 |

## **CAAQMS-3 (Switch Yard)**

| Month    | PM2.5 | PM10  | SO <sub>2</sub> | NOx  |
|----------|-------|-------|-----------------|------|
| Month    |       | [μg/i | m³]             |      |
| APR-2024 | 19.0  | 42.6  | 14.5            | 20.3 |
| MAY-2024 | 19.4  | 43.3  | 15.9            | 23.9 |
| JUN-2024 | 17.6  | 29.1  | 17.6            | 28.1 |
| JUL-2024 | 7.6   | 17.7  | 21.1            | 22.9 |
| AUG-2024 | 22.2  | 35.6  | 22.4            | 20.6 |
| SEP-2024 | 12.3  | 30.2  | 22.2            | 20.4 |





## Table-II: Ambient Air Quality Monitoring around Plant area

Period of Observation: 01.04.2024 to 30.09.2024

|          |       |      | Janji Vil       | lage |                      |       |
|----------|-------|------|-----------------|------|----------------------|-------|
| Month    | PM2.5 | PM10 | SO <sub>2</sub> | NOx  | СО                   | HC    |
|          |       | [μς  | g/m³]           |      | [mg/m <sup>3</sup> ] | [ppm] |
| APR-2024 | 24.3  | 46.5 | 22.9            | 21.6 | 0.452                | 0.466 |
| MAY-2024 | 23.8  | 45.9 | 22.1            | 20.6 | 0.453                | 0.461 |
| JUN-2024 | 21.6  | 43.0 | 20.7            | 19.0 | 0.441                | 0.449 |
| JUL-2024 | 20.2  | 27.4 | 22.8            | 19.9 | 0.434                | 0.444 |
| AUG-2024 | 23.7  | 44.5 | 23.6            | 22.6 | 0.440                | 0.452 |
| SEP-2024 | 22.5  | 30.4 | 23.6            | 21.9 | 0.438                | 0.451 |

|          | Karra Village |      |                 |         |                      |       |  |  |  |
|----------|---------------|------|-----------------|---------|----------------------|-------|--|--|--|
| Month    | PM2.5         | PM10 | SO <sub>2</sub> | NOx     | СО                   | HC    |  |  |  |
|          |               | [J   | ւց/m³]          |         | [mg/m <sup>3</sup> ] | [ppm] |  |  |  |
| APR-2024 | 26.5          | 43.9 | 23.8            | 22.7    | 0.436                | 0.449 |  |  |  |
| MAY-2024 | 24.6          | 43.0 | 22.9            | 21.4    | 0.435                | 0.446 |  |  |  |
| JUN-2024 | 24.7          | 42.1 | 22.3            | 21.3    | 0.435                | 0.443 |  |  |  |
| JUL-2024 | 17.2          | 24.9 | 20.8            | 19.0    | 0.432                | 0.442 |  |  |  |
| AUG-2024 | 22.1          | 40.7 | 16.8            | 15.9    | 0.434                | 0.444 |  |  |  |
| SEP-2024 | 17.3          | 25.5 | 17.4            | 15.9    | 0.434                | 0.444 |  |  |  |
|          |               |      | Kaudia          | Village |                      |       |  |  |  |
| Month    | PM2.5         | PM10 | SO <sub>2</sub> | NOx     | СО                   | НС    |  |  |  |
|          |               | [J   | ւց/m³]          |         | [mg/m <sup>3</sup> ] | [ppm] |  |  |  |
| JUL-2024 | 19.4          | 27.3 | 22.2            | 19.5    | 0.435                | 0.443 |  |  |  |
| AUG-2024 | 23.2          | 39.8 | 20.0            | 19.0    | 0.440                | 0.452 |  |  |  |
| SEP-2024 | 19.5          | 28.4 | 20.1            | 19.1    | 0.443                | 0.450 |  |  |  |

|          | Sipat Village                                  |      |      |                      |       |       |  |  |  |
|----------|--|------|------|----------------------|-------|-------|--|--|--|
| Month    | nth PM2.5 PM10 SO <sub>2</sub> NO <sub>X</sub> |      |      |                      |       | HC    |  |  |  |
|          |  | [μg/ |      | [mg/m <sup>3</sup> ] | [ppm] |       |  |  |  |
| APR-2024 | 24.6   | 44.6 | 23.1 | 21.2                 | 0.438 | 0.451 |  |  |  |
| MAY-2024 | 26.1   | 46.0 | 24.0 | 21.9                 | 0.440 | 0.450 |  |  |  |
| JUN-2024 | 24.9   | 44.6 | 23.3 | 21.1                 | 0.438 | 0.448 |  |  |  |





### **ANNEXURE-II**

Table-III

AAQ monitoring at Sonthi Pahar Reserve Forest Area

|          | Location – Parsapali |       |                      |       |       |       |  |  |  |
|----------|----------------------|-------|----------------------|-------|-------|-------|--|--|--|
| Month    | PM 2.5               | PM 10 | SO <sub>2</sub>      | NOx   | CO    | HC    |  |  |  |
|          |                      | [μg/m | [mg/m <sup>3</sup> ] | [ppm] |       |       |  |  |  |
| APR-2024 | 23.50                | 41.12 | 22.09                | 20.81 | 0.425 | 0.498 |  |  |  |
| MAY-2024 | 24.51                | 40.55 | 22.18                | 21.75 | 0.430 | 0.459 |  |  |  |
| JUN-2024 | 22.94                | 41.39 | 22.72                | 22.06 | 0.431 | 0.45  |  |  |  |
| JUL-2024 | 22.17                | 41.01 | 21.61                | 21.49 | 0.430 | 0.455 |  |  |  |
| AUG-2024 | 19.86                | 38.88 | 19.17                | 18.12 | 0.527 | 0.573 |  |  |  |
| SEP-2024 | 19.46                | 38.20 | 19.08                | 17.90 | 0.427 | 0.444 |  |  |  |





#### **ANNEXURE-III**

# **Table-IV: Stack Monitoring**

Period of Observation: 01.04.2024 to 30.09.2024

|        |    | U                               | nit-1 |       |    | Uı              | nit-2 |       |    | Uı              | nit-3 |       |    | U               | nit-4 |       |    | U               | nit-5 |       |
|--------|----|---------------------------------|-------|-------|----|-----------------|-------|-------|----|-----------------|-------|-------|----|-----------------|-------|-------|----|-----------------|-------|-------|
| Month  |    | Parameter in mg/Nm <sup>3</sup> |       |       |    |                 |       |       |    |                 |       |       |    |                 |       |       |    |                 |       |       |
| WOTH   | PM | SO <sub>2</sub>                 | NOx   | Hg    | РМ | SO <sub>2</sub> | NOx   | Hg    | PM | SO <sub>2</sub> | NOx   | Hg    | РМ | SO <sub>2</sub> | NOx   | Hg    | РМ | SO <sub>2</sub> | NOx   | Hg    |
| Apr-24 | 44 | 1045                            | 254   | 0.013 | 44 | 1062            | 260   | 0.011 | #  | #               | #     | #     | 44 | 1071            | 264   | 0.012 | 45 | 1047            | 258   | 0.011 |
| May-24 | 45 | 1062                            | 276   | 0.011 | 47 | 1080            | 271   | 0.013 | 45 | 1054            | 233   | 0.012 | 44 | 1051            | 261   | 0.010 | 45 | 1065            | 252   | 0.014 |
| Jun-24 | 44 | 1041                            | 251   | 0.014 | 44 | 1070            | 245   | 0.011 | 45 | 1028            | 250   | 0.013 | 45 | 1040            | 247   | 0.012 | 44 | 1040            | 251   | 0.010 |
| Jul-24 | 45 | 1054                            | 257   | 0.016 | 47 | 1068            | 254   | 0.010 | 45 | 1057            | 250   | 0.014 | 45 | 1057            | 261   | 0.015 | 45 | 1054            | 250   | 0.013 |
| Aug-24 | 45 | 1049                            | 245   | 0.016 | 50 | 1060            | 240   | 0.014 | 45 | 1038            | 240   | 0.012 | 47 | 1060            | 237   | 0.014 | 44 | 1079            | 264   | 0.010 |
| Sep-24 | 43 | 849                             | 199   | 0.013 | 43 | 991             | 202   | 0.011 | 29 | 960             | 225   | 0.015 | 42 | 1000            | 222   | 0.018 | 42 | 995             | 212   | 0.016 |

#.Under Shut Down





#### **ANNEXURE-IV**

### <u>Table-V: Ground Water Quality Monitoring</u> Period of Observation: 01.04.2024 to 30.09.2024

**Legend**: BDL – Below Detection Limit / BLQ- Below Limit of Quantification, LOQ-Limit of Quantification Minimum Detection Limit (mg/l): F:0.2

|          | Location-I (Hardadih) |     |     |        |       |  |  |  |  |
|----------|-----------------------|-----|-----|--------|-------|--|--|--|--|
| Month    | рН                    | TSS | TDS | F      | В     |  |  |  |  |
|          | рп                    |     | [m  | [mg/L] |       |  |  |  |  |
| APR-2024 | 7.4                   | 03  | 470 | 0.2    | < 0.1 |  |  |  |  |
| MAY-2024 | 7.1                   | 02  | 494 | 0.4    | < 0.1 |  |  |  |  |
| JUN-2024 | 7.3                   | 04  | 474 | 0.3    | < 0.1 |  |  |  |  |
| JUL-2024 | 7.1                   | 04  | 487 | 0.3    | < 0.1 |  |  |  |  |
| AUG-2024 | 7.2                   | 02  | 407 | BLQ    | <0.1  |  |  |  |  |
| SEP-2024 | 7.1                   | 03  | 400 | BLQ    | < 0.1 |  |  |  |  |

|          | Location-II (Sukhripali) |     |      |     |       |  |  |  |  |
|----------|--------------------------|-----|------|-----|-------|--|--|--|--|
| Month    |                          | TSS | TDS  | F   | В     |  |  |  |  |
|          | рН                       |     | g/L] |     |       |  |  |  |  |
| APR-2024 | 7.3                      | 04  | 488  | 0.4 | < 0.1 |  |  |  |  |
| MAY-2024 | 7.5                      | 03  | 474  | 0.3 | < 0.1 |  |  |  |  |
| JUN-2024 | 7.3                      | 04  | 491  | 0.4 | < 0.1 |  |  |  |  |
| JUL-2024 | 7.5                      | 05  | 494  | 0.4 | <0.1  |  |  |  |  |
| AUG-2024 | 7.3                      | 05  | 480  | 0.4 | <0.1  |  |  |  |  |
| SEP-2024 | 7.5                      | 04  | 460  | 0.4 | < 0.1 |  |  |  |  |

|          | Location-III (Ralia) |        |     |     |       |  |  |  |
|----------|----------------------|--------|-----|-----|-------|--|--|--|
| Month    | рН                   | TSS    | TDS | F   | В     |  |  |  |
|          | pii                  | [mg/L] |     |     |       |  |  |  |
| APR-2024 | 7.2                  | 0.2    | 434 | 0.2 | <0.1  |  |  |  |
| MAY-2024 | 7.3                  | 02     | 417 | BLQ | <0.1  |  |  |  |
| JUN-2024 | 7.5                  | 02     | 407 | 0.2 | <0.1  |  |  |  |
| JUL-2024 | 7.2                  | 03     | 427 | 0.3 | < 0.1 |  |  |  |
| AUG-2024 | 7.5                  | 01     | 397 | BLQ | < 0.1 |  |  |  |
| SEP-2024 | 7.3                  | 03     | 427 | 0.2 | < 0.1 |  |  |  |

|          | Location-IV (Bhilai) |        |     |     |       |  |  |  |  |  |
|----------|----------------------|--------|-----|-----|-------|--|--|--|--|--|
| Month    | th pH TSS TDS F      |        | В   |     |       |  |  |  |  |  |
| Month    | Pi i                 | [mg/L] |     |     |       |  |  |  |  |  |
| APR-2024 | 7.1                  | 02     | 420 | 0.2 | <0.1  |  |  |  |  |  |
| MAY-2024 | 7.4                  | 04     | 407 | 0.3 | <0.1  |  |  |  |  |  |
| JUN-2024 | 7.7                  | 01     | 387 | BLQ | <0.1  |  |  |  |  |  |
| JUL-2024 | 7.3                  | 02     | 400 | BLQ | <0.1  |  |  |  |  |  |
| AUG-2024 | 7.1                  | 01     | 387 | BLQ | <0.1  |  |  |  |  |  |
| SEP-2024 | 7.2                  | 04     | 475 | 0.3 | < 0.1 |  |  |  |  |  |





| Location-V (Gatora) |     |        |     |     |       |  |  |  |  |  |
|---------------------|-----|--------|-----|-----|-------|--|--|--|--|--|
| Month               | рН  | TSS    | TDS | F   | В     |  |  |  |  |  |
| Month               | Pii | [mg/L] |     |     |       |  |  |  |  |  |
| APR-2024            | 7.5 | 01     | 404 | BLQ | <0.1  |  |  |  |  |  |
| MAY-2024            | 7.2 | 02     | 430 | 0.2 | <0.1  |  |  |  |  |  |
| JUN-2024            | 7.5 | 01     | 387 | 0.3 | <0.1  |  |  |  |  |  |
| JUL-2024            | 7.6 | 02     | 414 | 0.2 | < 0.1 |  |  |  |  |  |
| AUG-2024            | 7.3 | 03     | 427 | 0.2 | <0.1  |  |  |  |  |  |
| SEP-2024            | 7.6 | 05     | 484 | 0.4 | < 0.1 |  |  |  |  |  |

| Location-VI (Rank) |     |        |     |     |       |  |  |  |  |
|--------------------|-----|--------|-----|-----|-------|--|--|--|--|
| Month              | рН  | TSS    | TDS | F   | В     |  |  |  |  |
| Month              | Pii | [mg/L] |     |     |       |  |  |  |  |
| APR-2024           | 7.6 | 03     | 478 | 0.3 | < 0.1 |  |  |  |  |
| MAY-2024           | 7.2 | 01     | 440 | BLQ | < 0.1 |  |  |  |  |
| JUN-2024           | 7.2 | 02     | 434 | BLQ | < 0.1 |  |  |  |  |
| JUL-2024           | 7.5 | 01     | 394 | BLQ | <0.1  |  |  |  |  |
| AUG-2024           | 7.6 | 04     | 480 | 0.3 | <0.1  |  |  |  |  |
| SEP-2024           | 7.3 | 01     | 391 | BLQ | < 0.1 |  |  |  |  |

|          | Location-VII (Janji) |     |     |       |      |  |  |  |  |  |
|----------|----------------------|-----|-----|-------|------|--|--|--|--|--|
| Month    | рН                   | TSS | TDS | F     | В    |  |  |  |  |  |
| Month    | Pii                  |     | [m  | ng/L] |      |  |  |  |  |  |
| APR-2024 | 7.2                  | 02  | 466 | 0.3   | <0.1 |  |  |  |  |  |
| MAY-2024 | 7.1                  | 03  | 490 | 0.2   | <0.1 |  |  |  |  |  |
| JUN-2024 | 7.3                  | 03  | 454 | 0.3   | <0.1 |  |  |  |  |  |
| JUL-2024 | 7.2                  | 02  | 400 | BLQ   | <0.1 |  |  |  |  |  |
| AUG-2024 | 7.1                  | 01  | 394 | BLQ   | <0.1 |  |  |  |  |  |
| SEP-2024 | 7.2                  | 01  | 388 | BLQ   | <0.1 |  |  |  |  |  |

|          | Location-VIII (Kaudia) |        |     |     |       |  |  |  |  |  |  |  |
|----------|------------------------|--------|-----|-----|-------|--|--|--|--|--|--|--|
| Month    | рН                     | TSS    | TDS | F   | В     |  |  |  |  |  |  |  |
| Month    | P. I                   | [mg/L] |     |     |       |  |  |  |  |  |  |  |
| APR-2024 | 7.4                    | 01     | 394 | BLQ | < 0.1 |  |  |  |  |  |  |  |
| MAY-2024 | 7.4                    | 02     | 390 | BLQ | < 0.1 |  |  |  |  |  |  |  |
| JUN-2024 | 7.2                    | 01     | 394 | BLQ | <0.1  |  |  |  |  |  |  |  |
| JUL-2024 | 7.5                    | 01     | 384 | BLQ | <0.1  |  |  |  |  |  |  |  |
| AUG-2024 | 7.3                    | 03     | 440 | 0.2 | < 0.1 |  |  |  |  |  |  |  |
| SEP-2024 | 7.5                    | 05     | 494 | 0.5 | < 0.1 |  |  |  |  |  |  |  |





|          | Location-IX (Darrabhata) |        |     |     |       |  |  |  |  |  |  |
|----------|--------------------------|--------|-----|-----|-------|--|--|--|--|--|--|
| Month    | рН                       | TSS    | TDS | F   | В     |  |  |  |  |  |  |
| Month    | P. I                     | [mg/L] |     |     |       |  |  |  |  |  |  |
| APR-2024 | 7.1                      | 02     | 424 | BLQ | < 0.1 |  |  |  |  |  |  |
| MAY-2024 | 7.3                      | 03     | 395 | 0.2 | <0.1  |  |  |  |  |  |  |
| JUN-2024 | 7.7                      | 02     | 410 | BLQ | < 0.1 |  |  |  |  |  |  |
| JUL-2024 | 7.1                      | 01     | 390 | BLQ | < 0.1 |  |  |  |  |  |  |
| AUG-2024 | 7.5                      | 04     | 487 | 0.3 | <0.1  |  |  |  |  |  |  |
| SEP-2024 | 7.3                      | 03     | 457 | 0.4 | <0.1  |  |  |  |  |  |  |

|          | Location-X (Deori) |        |     |     |       |  |  |  |  |  |  |  |
|----------|--------------------|--------|-----|-----|-------|--|--|--|--|--|--|--|
| Month    | рН                 | TSS    | TDS | F   | В     |  |  |  |  |  |  |  |
|          | μ                  | [mg/L] |     |     |       |  |  |  |  |  |  |  |
| APR-2024 | 7.3                | 05     | 492 | 0.3 | <0.1  |  |  |  |  |  |  |  |
| MAY-2024 | 7.5                | 04     | 470 | 0.3 | <0.1  |  |  |  |  |  |  |  |
| JUN-2024 | 7.5                | 03     | 430 | 0.2 | <0.1  |  |  |  |  |  |  |  |
| JUL-2024 | 7.6                | 04     | 488 | 0.4 | < 0.1 |  |  |  |  |  |  |  |
| AUG-2024 | 7.8                | 05     | 498 | 0.4 | <0.1  |  |  |  |  |  |  |  |
| SEP-2024 | 7.6                | 04     | 470 | 0.3 | < 0.1 |  |  |  |  |  |  |  |

|          | Location-XI (Nvaadih) |        |     |     |       |  |  |  |  |  |  |  |
|----------|-----------------------|--------|-----|-----|-------|--|--|--|--|--|--|--|
| Month    | рН                    | TSS    | TDS | F   | В     |  |  |  |  |  |  |  |
| Month    | Pi.                   | [mg/L] |     |     |       |  |  |  |  |  |  |  |
| APR-2024 | 7.5                   | 01     | 414 | BLQ | < 0.1 |  |  |  |  |  |  |  |
| MAY-2024 | 7.4                   | 02     | 440 | BLQ | < 0.1 |  |  |  |  |  |  |  |
| JUN-2024 | 7.1                   | 04     | 491 | BLQ | < 0.1 |  |  |  |  |  |  |  |
| JUL-2024 | 7.3                   | 03     | 407 | 0.2 | < 0.1 |  |  |  |  |  |  |  |
| AUG-2024 | 7.2                   | 01     | 380 | BLQ | <0.1  |  |  |  |  |  |  |  |
| SEP-2024 | 7.2                   | 02     | 400 | BLQ | < 0.1 |  |  |  |  |  |  |  |





# Table-VI: Heavy Metals monitoring around plant villages

Legend: BDL – Below Detection Limit / BLQ- Below Limit of Quantification, LOQ-Limit of Quantification Minimum Detection Limit (mg/l): Cu: 0.002, Zn: 0.1, Cd: 0.002 Cr(Total):0.002, Pb:0.002, As: 0.002, Hg:0.0005

|          | Location-I (Hardadih) |     |     |     |       |     |     |     |
|----------|-----------------------|-----|-----|-----|-------|-----|-----|-----|
| Month    | Fe                    | Hg  | Cd  | Cr  | Pb    | Zn  | As  | Cu  |
| Wonth    |                       |     |     | [r  | ng/L] |     |     |     |
| APR-2024 | 0.20                  | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |
| MAY-2024 | 0.19                  | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |
| JUN-2024 | 0.23                  | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |
| JUL-2024 | 0.25                  | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |
| AUG-2024 | 0.22                  | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |
| SEP-2024 | 0.23                  | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |

|          |      | Location-II (Sukhripali ) |     |     |     |     |     |     |  |  |
|----------|------|---------------------------|-----|-----|-----|-----|-----|-----|--|--|
| Month    | Fe   | Hg                        | Cd  | Cr  | Pb  | Zn  | As  | Cu  |  |  |
| MOHUH    |      | [mg/L]                    |     |     |     |     |     |     |  |  |
| APR-2024 | 0.21 | BLQ                       | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| MAY-2024 | 0.23 | BLQ                       | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| JUN-2024 | 0.20 | BLQ                       | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| JUL-2024 | 0.22 | BLQ                       | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| AUG-2024 | 0.25 | BLQ                       | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| SEP-2024 | 0.21 | BLQ                       | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |

|          |      | Location-III (Ralia) |     |                 |      |     |     |     |  |
|----------|------|----------------------|-----|-----------------|------|-----|-----|-----|--|
| Month    | Fe   | Hg                   | Cd  | Cr              | Pb   | Zn  | As  | Cu  |  |
| WOTILLI  |      |                      |     | [m <sub>:</sub> | g/L] |     |     |     |  |
| APR-2024 | 0.24 | BLQ                  | BLQ | BLQ             | BLQ  | BLQ | BLQ | BLQ |  |
| MAY-2024 | 0.22 | BLQ                  | BLQ | BLQ             | BLQ  | BLQ | BLQ | BLQ |  |
| JUN-2024 | 0.24 | BLQ                  | BLQ | BLQ             | BLQ  | BLQ | BLQ | BLQ |  |
| JUL-2024 | 0.23 | BLQ                  | BLQ | BLQ             | BLQ  | BLQ | BLQ | BLQ |  |
| AUG-2024 | 0.21 | BLQ                  | BLQ | BLQ             | BLQ  | BLQ | BLQ | BLQ |  |
| SEP-2024 | 0.25 | BLQ                  | BLQ | BLQ             | BLQ  | BLQ | BLQ | BLQ |  |

|          |      | Location-IV (Bhilai) |     |     |     |     |     |     |  |  |
|----------|------|----------------------|-----|-----|-----|-----|-----|-----|--|--|
| Month    | Fe   | Hg                   | Cd  | Cr  | Pb  | Zn  | As  | Cu  |  |  |
| WOULU    |      | [mg/L]               |     |     |     |     |     |     |  |  |
| APR-2024 | 0.23 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| MAY-2024 | 0.25 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| JUN-2024 | 0.23 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| JUL-2024 | 0.20 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| AUG-2024 | 0.24 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| SEP-2024 | 0.24 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |





|          |      | Location-V (Gatora ) |     |     |     |     |     |     |  |  |  |
|----------|------|----------------------|-----|-----|-----|-----|-----|-----|--|--|--|
| Month    | Fe   | Hg                   | Cd  | Cr  | Pb  | Zn  | As  | Cu  |  |  |  |
| WOITH    |      | [mg/L]               |     |     |     |     |     |     |  |  |  |
| APR-2024 | 0.21 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| MAY-2024 | 0.20 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| JUN-2024 | 0.21 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| JUL-2024 | 0.22 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| AUG-2024 | 0.26 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| SEP-2024 | 0.22 | BLQ                  | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |

|          | Location-VI (Rank ) |        |     |     |     |     |     |     |  |  |
|----------|---------------------|--------|-----|-----|-----|-----|-----|-----|--|--|
| Month    | Fe                  | Hg     | Cd  | Cr  | Pb  | Zn  | As  | Cu  |  |  |
| Month    |                     | [mg/L] |     |     |     |     |     |     |  |  |
| APR-2024 | 0.25                | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| MAY-2024 | 0.26                | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| JUN-2024 | 0.24                | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| JUL-2024 | 0.25                | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| AUG-2024 | 0.23                | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| SEP-2024 | 0.24                | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |

|          | Location-VII (Janji ) |        |     |     |     |     |     |     |  |  |  |
|----------|-----------------------|--------|-----|-----|-----|-----|-----|-----|--|--|--|
| Month    | Fe                    | Hg     | Cd  | Cr  | Pb  | Zn  | As  | Cu  |  |  |  |
| Month    |                       | [mg/L] |     |     |     |     |     |     |  |  |  |
| APR-2024 | 0.22                  | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| MAY-2024 | 0.20                  | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| JUN-2024 | 0.20                  | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| JUL-2024 | 0.22                  | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| AUG-2024 | 0.23                  | BLQ    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |
| SEP-2024 | 0.21                  | BLO    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |  |

|          |      | Location-VII (Kaudia ) |     |     |     |     |     |     |  |  |
|----------|------|------------------------|-----|-----|-----|-----|-----|-----|--|--|
| Month    | Fe   | Hg                     | Cd  | Cr  | Pb  | Zn  | As  | Cu  |  |  |
| Month    |      | [mg/L]                 |     |     |     |     |     |     |  |  |
| APR-2024 | 0.21 | BLQ                    | BLQ | BLQ | BLQ | BLQ | BLQ |     |  |  |
| MAY-2024 | 0.23 | BLQ                    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| JUN-2024 | 0.24 | BLQ                    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| JUL-2024 | 0.21 | BLQ                    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| AUG-2024 | 0.25 | BLQ                    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |
| SEP-2024 | 0.24 | BLQ                    | BLQ | BLQ | BLQ | BLQ | BLQ | BLQ |  |  |





|          | Location-IX (Darrabhata ) |     |     |     |      |     |     |     |  |
|----------|---------------------------|-----|-----|-----|------|-----|-----|-----|--|
| Month    | Fe                        | Hg  | Cd  | Cr  | Pb   | Zn  | As  | Cu  |  |
| WOTILIT  |                           |     |     | [m  | g/L] |     |     |     |  |
| APR-2024 | 0.24                      | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| MAY-2024 | 0.22                      | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| JUN-2024 | 0.22                      | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| JUL-2024 | 0.25                      | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| AUG-2024 | 0.21                      | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| SEP-2024 | 0.22                      | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |

|          | Location-X (Deori ) |     |     |     |       |     |     |     |  |
|----------|---------------------|-----|-----|-----|-------|-----|-----|-----|--|
| Month    | Fe                  | Hg  | Cd  | Cr  | Pb    | Zn  | As  | Cu  |  |
| Month    |                     |     |     | [n  | ng/L] |     |     |     |  |
| APR-2024 | 0.22                | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |  |
| MAY-2024 | 0.23                | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |  |
| JUN-2024 | 0.21                | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |  |
| JUL-2024 | 0.24                | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |  |
| AUG-2024 | 0.27                | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |  |
| SEP-2024 | 0.25                | BLQ | BLQ | BLQ | BLQ   | BLQ | BLQ | BLQ |  |

|          | Location-XI (Nvaadih ) |     |     |     |      |     |     |     |  |
|----------|------------------------|-----|-----|-----|------|-----|-----|-----|--|
| Month    | Fe                     | Hg  | Cd  | Cr  | Pb   | Zn  | As  | Cu  |  |
| MOHIH    |                        |     |     | [m  | g/L] |     |     |     |  |
| APR-2024 | 0.25                   | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| MAY-2024 | 0.24                   | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| JUN-2024 | 0.23                   | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| JUL-2024 | 0.20                   | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| AUG-2024 | 0.24                   | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |
| SEP-2024 | 0.28                   | BLQ | BLQ | BLQ | BLQ  | BLQ | BLQ | BLQ |  |





# Main Plant Effluent Monitoring Period of Observation: 01.04.2024 to 30.09.2024

NTPC Sipat is complying with the requirement of zero liquid discharge. There is no discharge outside plant area from CMB. After treatment, water is being reused in ash slurry system.

# <u>Table-VIII: Sanitary Effluent Monitoring</u> Period of Observation 01.04.2024 to 30.09.2024

At NTPC Sipat, there is no discharge of sanitary effluent. treated sanitary effluent is being used in horticulture.

|          | Sanitary Effluents |        |     |      |  |  |  |
|----------|--------------------|--------|-----|------|--|--|--|
| Month    |                    | TSS    | COD |      |  |  |  |
|          | рН                 | [mg/L] |     |      |  |  |  |
| APR-2024 | 7.4                | 13.5   | 5.7 | 35.2 |  |  |  |
| MAY-2024 | 7.4                | 13.8   | 5.3 | 32.4 |  |  |  |
| JUN-2024 | 7.3                | 12.9   | 5.7 | 30.8 |  |  |  |
| JUL-2024 | 7.4                | 15.4   | 6.1 | 32.0 |  |  |  |
| AUG-2024 | 7.2                | 13.9   | 5.7 | 28.5 |  |  |  |
| SEP-2024 | 7.5                | 13.0   | 6.0 | 29.9 |  |  |  |





# <u>Table-IX: Noise Monitoring</u> (Period of Observation: 01.04.2024 to 30.09.2024)

| Locations     | Date of    | Noise Lev | rels in dB(A) |  |
|---------------|------------|-----------|---------------|--|
| Locations     | Monitoring | Day Time  | Nighttime     |  |
| Material gate | 12-04-2024 | 56.8      | 46.2          |  |
| CCR           | 12-04-2024 | 51.5      | 42.3          |  |
| CHP           | 12-04-2024 | 52.6      | 43.3          |  |
| Ralia         | 12-04-2024 | 41.6      | 34.3          |  |
| Bhilai        | 12-04-2024 | 40.2      | 35.6          |  |
| Hardadih      | 12-04-2024 | 51.6      | 39.4          |  |
| Sukhripali    | 12-04-2024 | 39.5      | 35.6          |  |
| Gataura       | 12-04-2024 | 48.2      | 39.7          |  |
| ADM Gate      | 12-04-2024 | 51.3      | 47.5          |  |
| Turbine Hall  | 12-04-2024 | 55.3      | 43.5          |  |
| B-Type        | 12-04-2024 | 52.6      | 44.6          |  |
| Material gate | 13-05-2024 | 55.5      | 44.7          |  |
| CCR           | 13-05-2024 | 52.3      | 43.3          |  |
| CHP           | 13-05-2024 | 50.2      | 42.7          |  |
| Ralia         | 13-05-2024 | 40.7      | 33.2          |  |
| Bhilai        | 13-05-2024 | 41.6      | 36.4          |  |
| Hardadih      | 13-05-2024 | 47.4      | 38.6          |  |
| Sukhripali    | 13-05-2024 | 40.4      | 36.8          |  |
| Gataura       | 13-05-2024 | 45.5      | 38.8          |  |
| ADM Gate      | 13-05-2024 | 52.5      | 48.2          |  |
| Turbine Hall  | 13-05-2024 | 54.6      | 44.8          |  |
| B-Type        | 13-05-2024 | 51.3      | 43.3          |  |
| Material gate | 13-06-2024 | 54.7      | 42.6          |  |
| CCR           | 13-06-2024 | 50.7      | 42.7          |  |

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| CHP           | 13-06-2024 | 53.3 | 41.3 |
|---------------|------------|------|------|
| Ralia         | 13-06-2024 | 38.7 | 34.4 |
| Bhilai        | 13-06-2024 | 40.3 | 35.6 |
| Hardadih      | 13-06-2024 | 48.4 | 40.4 |
| Sukhripali    | 13-06-2024 | 41.6 | 35.7 |
| Gataura       | 13-06-2024 | 43.7 | 37.6 |
| ADM Gate      | 13-06-2024 | 50.7 | 47.2 |
| Turbine Hall  | 13-06-2024 | 56.7 | 46.6 |
| B-Type        | 13-06-2024 | 52.4 | 41.1 |
| Material gate | 13-07-2024 | 53.2 | 41.5 |
| CCR           | 13-07-2024 | 49.6 | 41.3 |
| CHP           | 13-07-2024 | 54.3 | 42.7 |
| Ralia         | 13-07-2024 | 40.6 | 36.7 |
| Bhilai        | 13-07-2024 | 38.7 | 32.7 |
| Hardadih      | 13-07-2024 | 47.3 | 35.7 |
| Sukhripali    | 13-07-2024 | 39.3 | 32.7 |
| Gataura       | 13-07-2024 | 41.2 | 36.3 |
| ADM Gate      | 13-07-2024 | 48.8 | 46.2 |
| Turbine Hall  | 13-07-2024 | 54.2 | 43.3 |
| B-Type        | 13-07-2024 | 50.4 | 39.3 |
| Material gate | 13-08-2024 | 51.6 | 40.2 |
| CCR           | 13-08-2024 | 48.3 | 39.5 |
| CHP           | 13-08-2024 | 52.2 | 41.7 |
| Ralia         | 13-08-2024 | 42.7 | 35.3 |
| Bhilai        | 13-08-2024 | 40.3 | 30.3 |
| Hardadih      | 13-08-2024 | 43.6 | 32.2 |
| Sukhripali    | 13-08-2024 | 38.7 | 31.2 |
| Gataura       | 13-08-2024 | 40.7 | 33.3 |
| ADM Gate      | 13-08-2024 | 50.1 | 42.8 |
|               |            | 55.7 | 42.6 |
| Turbine Hall  | 13-08-2024 |      |      |
| B-Type        | 13-08-2024 | 49.7 | 38.5 |
| Material gate | 13-09-2024 | 52.5 | 42.3 |
| CCR           | 13-09-2024 | 46.3 | 38.5 |
| CHP           | 13-09-2024 | 50.4 | 42.7 |
| Ralia         | 13-09-2024 | 40.3 | 36.5 |
| Bhilai        | 13-09-2024 | 38.5 | 32.6 |
| Hardadih      | 13-09-2024 | 45.6 | 35.3 |
| Sukhripali    | 13-09-2024 | 39.5 | 29.5 |
| Gataura       | 13-09-2024 | 41.5 | 31.6 |

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| ADM Gate     | 13-09-2024 | 52.6 | 44.7 |
|--------------|------------|------|------|
| Turbine Hall | 13-09-2024 | 58.2 | 43.6 |
| B-Type       | 13-09-2024 | 50.7 | 39.6 |

# Annexure to EC Condition No 2(ii) of Stage I EC amendment dt 08.02.2017

No 5(iii) of stage I EC amendment dt 17.05.2018

# **Sipat Super Thermal Power Station**

|        | Ambient Air Quality Around MGR |       |       |       |        |       |        |       |       |       |       |       |
|--------|--------------------------------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|
|        | Lutra Bitkula                  |       | Nirtu |       | Jhanjh |       | Utarda |       | Nevsa |       |       |       |
| Month  | PM10                           | PM2.5 | PM10  | PM2.5 | PM10   | PM2.5 | PM10   | PM2.5 | PM10  | PM2.5 | PM10  | PM2.5 |
| Oct-24 | 36.75                          | 23.01 | 38.43 | 23.52 | 39.16  | 23.86 | 37.62  | 22.51 | 38.57 | 23.49 | 38.26 | 23.23 |
| Nov-24 | 38.09                          | 22.27 | 38.56 | 22.13 | 39.07  | 22.83 | 37.8   | 21.92 | 39.03 | 24.05 | 36.82 | 21.38 |
| Dec-24 | 38.72                          | 22.38 | 38.61 | 22.4  | 39.56  | 23.21 | 39.82  | 22.76 | 40.09 | 24.16 | 38.24 | 22.43 |
| Jan-25 | 39.91                          | 22.91 | 40.52 | 24.45 | 41.24  | 24.01 | 38.62  | 21.93 | 40.77 | 24.5  | 40.06 | 23.05 |
| Feb-25 | 39.46                          | 22.44 | 40.83 | 22.97 | 41.75  | 23.94 | 39.66  | 21.47 | 40.98 | 23.11 | 39.46 | 21.96 |
| Mar-25 | 40.62                          | 23.74 | 41.38 | 24.30 | 42.67  | 24.81 | 39.25  | 22.41 | 41.71 | 24.89 | 40.92 | 23.47 |