

**BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY  
COMMISSION  
NEW DELHI**

**PETITION NO.....**

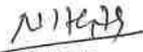
**IN THE MATTER OF** : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-V of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Chapter-3, Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for approval of input price of coal supplied from **Dulanga mine** for the period from date of commercial operation i.e. **01.10.2020 to 31.03.2024.**

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Through counsel

  
DSK Legal

Advocates for the Petitioner  
Esc House, 155, 1st& 2nd Floor  
Okhla Industrial Estate, Phase 3  
New Delhi – 110020

Place - New Delhi

Date -

**BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY  
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**PETITION NO.....**

**IN THE MATTER OF** : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-V of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Chapter-3, Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for approval of input price of coal supplied from Dulanga mine **for the period from date of commercial operation i.e. 01.10.2020 to 31.03.2024.**

**AND  
IN THE MATTER OF**

Petitioner: : NTPC Ltd.  
NTPC Bhawan  
Core-7, Scope Complex  
7, Institutional Area, Lodhi Road  
New Delhi-110 003.

Respondents

1. Bihar State Power Holding Company Ltd (BSPHCL),  
Vidyut Bhawan, Bailey Road  
Patna - 800001.
2. North Bihar Power Distribution Company Ltd.,  
Vidyut Bhawan, Bailey Road  
Patna 800 001

3. South Bihar Power Distribution Company Ltd.,  
Vidyut Bhawan, Bailey Road  
Patna 800 001
4. Jharkhand Bijlee Vitaran Nigam Ltd.,  
Engineering Building, HEC Township,  
Dhurwa, Ranchi – 834 004
5. GRIDCO Ltd.,  
Janpath,  
Bhubaneswar – 751 022
6. West Bengal State Electricity Distribution Company  
Ltd.,  
Vidyut Bhawan, Bidhannagar, Block DJ,  
Sector-II, Salt Lake City,  
Kolkata – 700 091
7. Power Department,  
Govt. of Sikkim,  
Kazi Road, Gangtok, Sikkim – 737 101

The Petitioner humbly states that:

- 1) The Petitioner herein NTPC Ltd. (hereinafter referred to as '**Petitioner**' or '**NTPC**'), is a company incorporated under provisions of the Company Act, 1956 and a Government Company as defined under Section 2(45) of the Companies Act, 2013. Further, NTPC is a 'Generating Company' as defined under Section 2(28) of the Electricity Act, 2003.
- 2) In terms of Section 79(1)(a) of Electricity Act, 2003, the Hon'ble Commission has been vested with the functions to regulate the tariff of NTPC, being a Generating Company owned and controlled by the Central Government. The tariff of NTPC is regulated in terms of Section 79(1)(a) read with Section 61, 62 and 64 of the Electricity Act, 2003 and the Regulations notified by the Hon'ble Commission in exercise of powers under Section 178 read with Section 61 of the Electricity Act, 2003.

- 3) It is submitted that integrated coal mines have been allocated to NTPC for specified end use generating stations, whose tariff is determined by the Commission under Section 62 of the Act. Dulanga is one such coal mine which has been allocated to NTPC Ltd as a linked mine for Darlipali STPS (2X800 MW). Dulanga coal mine is located in Sundergarh district of Odisha State.
- 4) The Hon'ble Commission has notified the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2019 (hereinafter 'Tariff Regulations 2019') which came into force from 01.04.2019, specifying the terms & conditions and methodology of tariff determination for the period 01.04.2019 to 31.03.2024. Further, on 19.02.2021, this Hon'ble Commission notified the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2021, which stipulates the terms and conditions for determination of input price of coal supplied from integrated mines to the linked generating stations.
- 5) Clause 1(a) of Regulation 2 of Tariff Regulations 2019, as amended, provides as under:

*“(1a) These regulations shall apply in all cases where a generating company has the arrangement for supply of coal or lignite from the integrated mine(s) allocated to it, for one or more of its specified end use generating stations, whose tariff is required to be determined by the Commission under section 62 of the Act read with section 79 thereof.”*

- 6) Regulation 9(4) of Tariff Regulations 2019, as amended, provides as follows:

*“(4) Where the generating company has the arrangement for supply of coal or lignite from an integrated mine(s) to one or more of its generating stations, the generating company shall file a petition for determination of the input price for determining the energy charge along with the tariff petitions for one or more*

*generating stations in accordance with the provision of Chapter 9 of these regulations.*

*Provided that a generating company with integrated mine(s) shall file a petition for determination of input price of coal or lignite from the integrated mine(s) not later than 60 days from the date of commercial operation of the integrated mine(s) or from the date of notification of these regulations, whichever is later and may also seek determination or revision of tariff of the concerned generating station(s) in accordance with these regulations.”*

- 7) In terms of above-referred regulation, the Petitioner is filing the present petition for determination of input price of coal supplied from Dulanga mine for the period from 01.10.2020 to 31.03.2024 as per the Tariff Regulations 2019, as amended.
- 8) It is submitted that Regulation 9(4) requires that the present petition should be filed not later than 60 days from the date of commercial operation of the integrated mine(s) or from the date of notification of these regulations, whichever is later. In this regard, it is pertinent to state that as per Regulation 1(2) of the second amendment to Tariff Regulation 2019, the Regulations shall come into force from the date of notification of these Regulations in official Gazette. The date of notification of these Regulations in official Gazette is 13.09.2021. A copy of the Gazette notification of the second amendment to Tariff Regulation 2019 dated 13.09.2021 is marked and annexed as **Annexure - A**.
- 9) It is further submitted that the tariff petition for the generating stations linked to Dulanga mine has been filed with diary no 287/2001.

**Re: Factual Background about the Dulanga Mine**

- 10) It is submitted that Dulanga coal block was allotted to NTPC by Ministry of Coal, GoI vide order no 13016/29/2003-CA-I dtd 25.01.2006 as captive coal mining block. Detailed geographical report of the coal block was provided by Mineral Exploration Corporation Limited (MECL) in March 2008. Copy of allotment order dated 25.01.2006 is attached as **Annexure-B**. Mining plan of the block was approved by MoC, GoI in July 2009.
- 11) It is submitted that the feasibility report (FR) of the project was prepared in March 2010, however, the approval process of FR was kept in abeyance in view of listing of Dulanga Coal Block in 'No Go Area' by MOEF, GoI. Later, it was re-categorized as 'Go- Area' by MOEF in June 2011, wherein dense forest area of around 87 Ha was excluded for mining. This necessitated the revision of approved mining plan. The revised mining plan was approved by MoC, GoI in Aug 2012.
- 12) It is submitted that revised FR of the project, based on revised mine plan, was approved by NTPC Board in Feb 2013. Thereafter, Stage-I forest clearance for the project was granted in Jan 2014 and environment clearance was granted in March 2014. However, as per Hon'ble Supreme Court order dtd 24.09.2014, allocation of Dulanga coal block was cancelled. Subsequently, the block was re-allocated to NTPC vide order dtd 08.09.2015. Copy of order dated 08.09.2015 is attached as **Annexure-C**. Subsequently, Stage-II forest clearance was granted in Dec-2015.
- 13) The investment approval of the Dulanga Coal Mine project was accorded by NTPC Board at its 441<sup>st</sup> meeting held on 05.01.2017 at a project cost of Rs. 1053.41 Crs as of price level of 3<sup>rd</sup> Qtr 2016 and estimated completion cost of Rs 1138.63 Cr ("Investment Approval").
- 14) Subsequently, compensation for land, trees & assets and R&R plan of the project was revised by the Govt Authorities and therefore additional amount of Rs 260.45 Cr towards land compensation and R&R plan was approved by

NTPC Board 27<sup>th</sup> June 2020. It is further submitted that NTPC Board has authorized Chairman & Managing Director to approve any subsequent updation in the cost estimates as well as the changes that may be required to be carried out, based on comments of agencies according statutory clearances. A copy of Investment Approval and Revised Board approval attached as **Annexure-D (Colly.)**. Hence overall approved project cost of Dulanga mining project is Rs. 1399.08 Crs.

- 15) The mine was envisaged to be operated under Mine Developer cum Operator (MDO) mode and Letter of award for appointment of MDO was issued on 09.02.2017. Copy of LOA is attached as **Annexure-E**.
- 16) On 19.09.2018, first coal was produced from Dulanga and on 01.10.2020, CoD of mine was declared. It is relevant to point out that there was no regulation in force at the time which occupied the field for input price of coal from integrated mines as the Second Amendment to the Tariff Regulations 2019 were notified only on 13.09.2021. Therefore, the CoD of the Mine was declared in terms of internal procedures of NTPC.

**Re: Calculation of input price by Petitioner for FY 2019-2024**

- 17) It is submitted that based on actual capital expenditure, the capital cost of Dulanga as on CoD comes out to be Rs 685.45 Cr on cash basis and liabilities of Rs 361.25 Cr. The input price has been calculated based on parameters provided in Tariff Regulations, 2019, as amended as depicted below:
  - i) **Debt: Equity ratio:** 70:30.
  - ii) **Base rate of return on equity :** This has been considered 14%.
  - iii) **Normative loan and notional IDC:** In terms of Regulation 19(2)(b) of Tariff Regulations, 2019, as amended, equity deployed in excess of 30% of the fund deployed has been considered as normative loan and notional IDC of Rs. 45.16 Cr up to 01.10.2020 has been considered as part of the capital cost of the project. Notional IDC, if

any, up to the peak rated capacity shall be claimed based on audited financial statements upon achieving the peak rated capacity of the Mine.

- iv) **Rate of interest on loan:** It has been considered based on actual weighted average rate of interest of the project.
- v) **Depreciation:** Straight line depreciation has been calculated as per life of assets mentioned in Appendix IA to Second amendment to CERC Tariff Regulations, 2019.
- vi) **O&M expenses:** O&M expenses have been claimed based on actual O&M expenses for the year 2020-21 and the same has been escalated @ 3.5% per year for subsequent years. It is further submitted that the O&M expenses are subject to truing up in terms of Tariff Regulations, 2019, as amended.
- vii) **Statutory expenses:** These expenses have been indicated as applicable as on date. Any increase or decrease in statutory expenses shall be submitted at the time of truing up. Further, GST @ 5% will be applicable along with GST Cess @ Rs. 400/- per Ton, if the coal is supplied to a station having different GST number.
- viii) **Mining Fee:**
  - a. Tariff Regulations, 2019, as amended, provides that MDO mining fee shall be allowed as part of input price of coal. MDO mining fee has been claimed as per the Letter of Award issued to MDO in this regard. In terms of the agreement signed with MDO, mining fee is subject to escalation on quarterly basis based on prices of input materials of MDO like heavy machinery parts, fuel, explosives, power, tyres, salaries & wages etc as per the formula provided in the MDO agreement. Copy of relevant extracts of MDO agreement is attached as **Annexure F**.
  - b. Actual rate of escalation paid to MDO in terms of the agreement is as follows:

Year	2020-21			2021-22		
Quarter	Q3	Q4	Weighted average for the year	Q1	Q2	Weighted Average
Rate of escalation (%)	15.40	14.97	15.20	23.63	31.36	27.23

As per the contract agreement, date for determining base indices/ prices is 30 days prior to the date of opening of Techno-Commercial proposals. Techno-Commercial offers were opened on 27.04.2016, therefore, the date for determining base prices/ indices is 27.03.2016.

- c. It is submitted that the mining fee in the instant petition has been claimed based on base mining fee along with escalation paid to the MDO. It is further submitted that for future period, Hon'ble Commission may be pleased to allow to bill the input price of coal based on quarterly escalated price of MDO to avoid accumulation of arrears. Detailed calculation in regard to escalation of MDO price shall be submitted before the Hon'ble Commission at the time of truing up.
- d. Furthermore, because of non-completion of loading facilities by the MDO, LD of 19% of mining fee is being recovered from the MDO and the contract in lieu of these facilities has been awarded to a third party for loading of coal into wagons. Accordingly, claimed mining charges of MDO has been reduced by the amount of LD recovered and loading charges being paid to third party have been claimed as part of O&M expenses.
- e. It is also submitted that Tariff Regulations, 2019, as amended, provides for adjustment of input price of coal based on actual stripping ratio and the contract with MDO also contains the provisions for adjustment of mining fee based on actual stripping ratio. However, Tariff Regulations, 2019, as amended, provides that any shortfall in overburden removal may be adjusted against excess overburden removal in subsequent three years. Therefore,

adjustment of input price of coal due to shortfall in overburden removal shall be submitted before the Hon'ble Commission at the time of truing up. Hon'ble Commission may be pleased to allow the same.

- ix) It is submitted that Regulation 7A of Tariff Regulations, 2019 as amended provides as under :

*“7A. Supply of Coal or Lignite prior to the Date of Commercial Operation of Integrated Mine:*

*The input price for supply of coal or lignite from the integrated mine(s) prior to their date of commercial operation shall be: (a) in case of coal, the estimated price available in the investment approval, or the notified price of Coal India Limited for the corresponding grade of coal supplied to the power sector, whichever is lower;*

*..*

*Provided that any revenue earned from supply of coal or lignite prior to the date of commercial operation of the integrated mine(s) shall be applied in adjusting the capital cost of the said integrated mine(s).”*

Thus, in terms of Regulation 7A, the amount received from sale of coal prior to date of commercial operation has been adjusted in the capital cost of the project. It is further noteworthy that the input price of coal prior to CoD has been received as per the estimated price available in the investment approval as the same was lower than the notified price of Coal India Limited for the corresponding grade of coal supplied to the power sector.

## Mine Closure Expenses

18) It is submitted that Regulations 36K of Tariff Regulations, 2019, as amended provides as follows:

*(1) Where the mine closure is undertaken by the generating company, the amount deposited in the Escrow account as per the Mining Plan, after adjusting interest earned, if any, on the said deposits shall be admitted as Mine Closure Expenses:*

*Provided that,*

*a) the amount deposited in the Escrow account as per the Mining Plan prior to the Date of Commercial Operation of the integrated mine(s) shall be indicated separately and shall be recovered over the useful life of the integrated mine(s) in the form of annuity linked to the borrowing rate;*

*b) the amount deposited in the Escrow account as per the Mining Plan or any expenditure incurred towards mine closure shall be excluded from the capital cost for computing input price;*

*c) where the expenditure incurred towards mine closure falls short of or is in excess of the reimbursement received from the Escrow account during the tariff period 2019-24, the shortfall or excess shall be carried forward to the subsequent years for adjustments.*

*(2) The amount towards mine closure shall be deposited in the Escrow account as per the Mining Plan and shall be recovered as part of input price irrespective of the expenditure incurred towards mine closure during any of the years of the tariff period.*

*(3) Where mine closure is within the scope of Mine Developer and Operator engaged by the generating company and mine closure expenses are part of the Mining Charge of Mine Developer and Operator, the mine closure expenses shall be met out of the Mining Charge and no mine closure expenses shall be admissible to the generating company separately:*

*Provided that,*

*a) the amount deposited in the Escrow account by the Mine Developer and Operator or by the generating company and any amount received from the Escrow Account against expenditure incurred towards mine closure shall not be considered for computing input price; and*

*b) the difference between the borrowing cost, arrived at by considering the weighted average rate of interest calculated on the basis of actual loan*

*portfolio in accordance with the methodology specified in Regulation 32 of these regulations, and the amount deposited in Escrow account and the interest received from Escrow account in a year shall be adjusted in the input price of coal or lignite of the respective year, as part of mine closure expenses, on case to case basis;*

*(4) Where the mine closure is within the scope of Mine Developer and Operator engaged by the generating company only for a part of useful life of the integrated mine(s) and the generating company undertakes the mine closure for the balance useful life, the treatment of mine closure during the period undertaken by the generating company shall be in accordance with Clause (1) of this Regulation and mine closure during the period undertaken by the Mine Developer and Operator shall be in accordance with Clause (3) of this Regulation:*

**Provided that the treatment of mine closure at the end of useful life of the integrated mine(s) shall be decided by the Commission on case to case basis.**”

- 19)** It is submitted that mine closure involves planning effectively for the after-mining landscape – all activities required before, during, and after the operating life of a mine that are needed to produce an acceptable landscape economically. The Mine Closure activities can be broadly divided in following two categories:
- i) Progressive or Concurrent Mine Closure and
  - ii) Final Mine Closure.
- 20)** Progressive Mine Closure includes various land use activities to be done continuously and sequentially during the entire period of the mining operations, whereas Final Mine Closure activities would start towards the end of mine life and shall continue even after the reserves are exhausted and mining is discontinued till the mining area is restored to an acceptable level.

- 21) It is submitted that in case of Dulanga mine of NTPC, which is an MDO operated mine, progressive mine closure is in the scope of MDO and expenses towards progressive mine closure have been built up in MDO mining fee. Whereas final mine closure activities are to be carried out by NTPC and expenses thereof are to be borne by the NTPC. Further, even though progressive closure is in the scope of MDO, the total estimated amount towards mine closure activities i.e. progressive as well as final closure is required to be deposited into Escrow Account by NTPC. Relevant extracts of MDO agreement attached as **Annexure-K**.
- 22) Works of progressive mine closure shall be carried out by the MDO during operational life of the mine, the expenditure & details towards progressive mine closure will be submitted to Coal Controller/ any other authority. Such authority, after verification of completion of works as per mine plan, shall allow reimbursement of progressive mine closure expenses from escrow account, up to specified percentage of the amount deposited in escrow account, after every five years. As per the Office Memorandum dtd 29th May 2020, issued by Ministry of Coal, Government of India, only 50% of amount deposited can be withdrawn during operational life of mine after every five years. Copy of office memorandum of ministry of coal is attached as **Annexure-L**.
- 23) In view of the above, it is evident that 50% of amount submitted in escrow account is towards progressive mine closure and balance is towards final mine closure expenses. As the progressive mine closure is in the scope of MDO, the cost of activities corresponding to progressive mine closure is included in MDO fee. Therefore, treatment of 50% of amount submitted in escrow account may be allowed as per Regulation 36(K)(3) i.e. difference between the borrowing cost of 50% of amount deposited in escrow account and the interest received

from Escrow account in a year corresponding to 50% of amount submitted in escrow account may be allowed as mine closure expenses.

- 24) It is further submitted that activities corresponding to balance amount submitted in escrow account are corresponding to final mine closure and are in the scope of NTPC Ltd. Therefore, treatment of balance amount deposited in escrow account should be as per Regulation 36(K)(1) i.e. 50% of amount deposited in escrow account may be allowed as part of input price of coal without adjusting interest earned as the generating company shall be receiving no interest from escrow account during operating life of mine.
- 25) The petitioner has accordingly calculated the input price for 2019-24 period based on the above and the same is enclosed as part of **Appendix-I** to this petition.

**Re: Provisional billing of input price of coal as per this petition**

- 26) It is submitted that the Petitioner is presently billing input price of coal from Dulanga coal mine at the price indicated in Investment Approval in terms of the CERC Tariff Regulations, 2019, as amended. The claim of input price in the instant petition is in variance with that being billed. Since the input price determination may take time, it is prayed that Hon'ble Commission may allow the Petitioner to provisionally bill input price of coal as per this petition till the time input price is determined and this petition is disposed off.

**Re: Filing Fee**

- 27) It is submitted that Regulation 70 (1) of Tariff Regulations 2019 provides that the application fee and publication expenses may be allowed to be recovered directly from the beneficiaries at the discretion of the Hon'ble Commission. Accordingly, it is prayed that Hon'ble Commission may be pleased to allow recovery of filing fee directly from the beneficiaries.

- 28) It is submitted that the Petitioner has already paid the requisite filing fee through SAUDAMINI portal as per the provisions of the CERC (Payment of Fees) Regulations, 2012 as amended.
- 29) It is submitted the Petitioner has served the copy of the Petition on to the Respondents mentioned herein above and has posted the Petition on the company website i.e. [www.ntpc.co.in](http://www.ntpc.co.in).
- 30) The Petitioner undertakes to submit any further information or clarification which may be required by this Hon'ble Commission for adjudication of the present petition.

### **Prayers**

In the light of the above submissions, the Petitioner, therefore, prays that the Hon'ble Commission may be pleased to:

- i) Approve input price of coal of Dulanga mine for the period from 01.10.2020 to 31.03.2024.
- ii) Allow mine closure expenses as submitted in the petition.
- iii) Allow the petitioner to provisionally bill input price of coal as per this petition until the time the present petition is disposed off with permission for retrospective adjustment.
- iv) Allow the reimbursement of expenditure towards filing fees and any other expenditure incurred by the Petitioner in relation to filing the present petition before the Hon'ble Commission in terms of the Tariff regulation 2019 as amended from the beneficiaries.
- v) Condone any error/omission in the petition and to grant an opportunity to the Petitioner to rectify the same;
- vi) Permit the Petitioner to make such further submission(s), addition(s) and alteration(s) to this Petition as may be necessary from time to time;

- vii) Pass any other order as it may deem fit in the circumstances mentioned above.

**Through counsel**

N/K/99

**DSK Legal**

Advocates for the Petitioner

Esc House, 155, 1st & 2nd Floor

Okhla Industrial Estate, Phase 3

New Delhi – 110020

Place - New Delhi

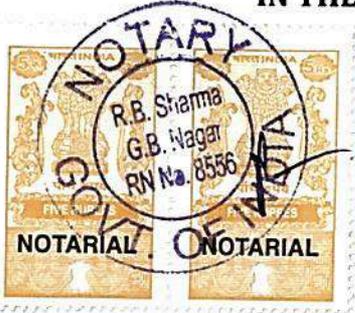
Date - 25-10-2021

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*Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-V of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Chapter-3, Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for approval of input price of coal supplied from Dulanga mine for the period from date of commercial operation i.e. 01.10.2020 to 31.03.2024.*



**AND**

**IN THE MATTER OF:**

NTPC Limited

...Petitioner

Versus

Power System Operation Corporation Limited

...Respondents

**AFFIDAVIT**

I, Manoj Kumar Sharma S/o. Sh Shivswaroop Sharma, aged about 41 years, working with Petitioner Company having its office NTPC Bhawan, Core-7, SCOPE Complex, 7, Institutional Area, Lodhi Road New Delhi – 110001, do hereby solemnly affirm and state on oath as under:



1. That I am duly authorized and working as Deputy General Manager (Commercial) in the Petitioner Company and I am competent to affirm this Affidavit on its behalf. I say that the facts stated herein are based on record of the Petitioner/NTPC Limited, maintained in the ordinary course of business and believed to be true.
2. That I have read the accompanying Petition being submitted on behalf of Petitioner and have understood the contents thereof and that the contents therein are true and correct to the best of my knowledge and belief.
3. That the Annexures filed along with the accompanying petition are true copies of their respective originals.

*(Signature)*

4. That the facts Stated in the above affidavit are true and correct to my Knowledge. No part of the same is false and nothing material has been concealed therefrom.

  
DEPONENT

**VERIFICIATION**

I, Manoj Kumar Sharma, the above-named deponent do hereby verify that the contents of this affidavit are true and correct to the best of my knowledge and belief, no part of it is false and nothing material has been concealed therefrom.

Verified by me on this \_\_\_ day of \_\_\_\_\_, 2021, at Noida.

  
DEPONENT



ATTESTED

  
RAMBIR SHARMA  
Advocate Notary  
(G.B. Nagar)

25 OCT 2021

Checklist of Main Tariff Forms and other information for tariff filing for  
Integrated Mine

Form No.	Title of Tariff Filing Forms (Integrated Mine)	Tick
FORM- 1	Summary of Input Price	✓
FORM -1A	Summary of ROM Cost	✓
FORM -1B	Summary of Additional Charges	N/A
FORM-2	Statement showing claimed Capital Cost	✓
FORM-2A	Statement showing claimed Return on Equity	✓
FORM-2B	Statement showing claimed O&M cost	✓
FORM- 3	Mine Characteristics/Important Details as per Mine Plan	✓
FORM- 3A	Normative Parameters considered for Input Price computation	✓
FORM- 4	Details of Foreign loans	N/A
FORM- 4A	Details of Foreign Equity	N/A
FORM-5	Abstract of Admitted Capital Cost for the existing Integrated Mine	N/A
FORM- 6	Financial Package up to date of commercial operation & up to Peak rated capacity	✓
FORM- 7	Details of Integrated Mine Specific Loans	N/A
FORM- 8	Details of Allocation of corporate loans to Integrated Mine	✓
FORM-9	Year wise Statement of Additional Capitalization after date of commercial operation up to/ beyond achieving Peak rated Capacity	✓
FORM- 10	Financing of Additional Capitalization	**
FORM- 11	Calculation of Depreciation	✓
FORM- 12	Statement of Depreciation	✓
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	✓
FORM- 15	Non-Tariff Income	**
FORM- 16	Details of Applicable Statutory Charges	✓
FORM-17	Details of Mine Closure expenses	✓
FORM- 18	Details for GCV Adjustment	**

\*\* Shall be provided at the time of truing up.

**PART-IV**  
**List of Supporting Forms / documents for tariff filing for Integrated Mine**

Form No.	Title of Tariff Filing Forms (Integrated Mine)	Tick
FORM-A	Abstract of Capital Cost Estimates and cost on date of commercial operation of the Integrated Mine	✓
FORM-B	Break-up of Capital Cost for New Integrated Mine	✓
FORM-C	Break-up of Construction/Supply/Service Packages	✓
FORM -D	Details of Assets De-capitalized during the period	**
FORM -E	Reconciliation of Capitalization claimed vis-à-vis books of accounts	✓
FORM -F	Statement showing details of items/assets/works claimed under Exclusions	**
FORM-G	Statement of Capital cost	✓
FORM-H	Statement of Capital Woks in Progress	✓
FORM-I	Calculation of Interest on Normative Loan	✓
FORM-J	Calculation of Interest on Working Capital	✓
FORM-K	Incidental Expenditure up to date of commencement of Production and up to Actual/anticipated date of commercial operation	✓
FORM-L	Expenditure under different packages up to date of commencement of Production and up to Actual/anticipated date of commercial operation	✓
FORM-M	Actual cash expenditure	✓
FORM-N	Statement of Liability flow	✓

**List of supporting documents for tariff filing for Integrated Mine**

S. No.	Information / Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association ( For New Integrated Mine setup by a company making application for the first time to CERC)	N/A
2	A. Mine wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on date of commercial operation of the Mine for the new mine & for the relevant years. B. Mine wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the existing mine for relevant years.	✓
3	Copies of relevant loan Agreements	✓
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	✓
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	N/A
6	List of End use generating plant to whom supplies made/to be made and quantity supplied/to be supplied	N/A
7	Integrated Mine shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Integrated Mine and subsequently consolidated at Company level as submitted to the Govt. of India from the date of commencement of production in case of a new mine or first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	**
8	Any other relevant information, (Please specify)	
9	Reconciliation with Balance sheet of any actual capitalization or additional capitalization year on year basis duly audited	✓
10.	Integrated mine is maintaining the records to be submitted frequently to the Coal Controller Office. Copy of Same should be furnished to the Commission at the time of submission to CCO. Forms may be suitably modified to furnish relevant important information for input price determination	

\*\* To be provided at the time of trueing up

<u>Summary of Input Price</u>						PART-IV FORM- 1		
Name of the Petitioner: NTPC Ltd								
Name of the Integrated Mine: Dulanga								
Place (Region/District/State): ER/ Sundargarh/ Odisha								
S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
1.1	ROM Cost as per Form 1 A	Rs/Tonne	Not Applicable	Not Applicable	922.52	909.28	788.92	797.12
1.2	Additional Charge as per Form 1B	Rs/Tonne			0.00	0.00	0.00	0.00
	<b>Input Price</b>	Rs/Tonne			922.52	909.28	788.92	797.12
1.3	Statutory Charges	Rs/Tonne			241.98	241.98	241.98	241.98
1.4	Total input price	Rs/Tonne			1164.49	1151.26	1030.90	1039.10
1.5	GST @ 5%							
	Total input price	Rs/Tonne	1164.49	1151.26	1030.90	1039.10		

  
(Petitioner)

Note: GST @5% and GST cess @Rs 400 per Ton shall be applicable in case coal is transferred to station having different GSTN.

<u>Summary of ROM Cost</u>						PART-IV FORM- 1A		
Name of the Petitioner: NTPC Ltd								
Name of the Integrated Mine: Dulanga								
Place (Region/District/State): ER/ Sundargarh/ Odisha								
S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
1.1	Depreciation	Rs Lakh			3,421.43	3,798.61	4,092.87	4,296.54
1.2	Interest on Loan	Rs Lakh			3,784.64	3,995.39	4,048.62	3,981.51
1.3	Return on Equity	Rs Lakh			3,939.35	4,373.62	4,712.43	4,946.93
1.4	Interest on Working Capital	Rs Lakh			231.80	242.73	291.40	297.05
1.5	O&M Expenses excluding mining charge	Rs Lakh			5,317.86	5,677.63	5,962.68	6,145.93
1.6	Mine closure expense	Rs Lakh			215.28	228.38	242.25	256.39
1.0	<b>Total Annual Extraction Cost (Sum of above 1.1 to 1.6)</b>	Rs Lakh			16,910.36	18,316.37	19,350.24	19,924.34
2.0	Annual Target Quantity (ATQ) as per mine plan	Tonne	Not Applicable	Not Applicable	36,70,000	44,70,000	70,00,000	70,00,000
3.0	Annual Extraction cost per tonne (1.0 in Rs/2.0)	Rs/Tonne			460.77	409.76	276.43	284.63
4.1	Base Mining charge	Rs/Tonne			387.67	387.67	387.67	387.67
4.2	Escalation in Mining Fee	%			15.20	27.23	31.36	31.36
4.3	Escalated mining fee	Rs/Tonne			446.60	493.24	509.25	509.25
4.4	LD on Mining Fee	%			19.00	19.00	19.00	19.00
4.5	Claimed Mining Fee	Rs/Tonne			361.74	399.52	412.49	412.49
5.0	Fixed Reserve Price	Rs/Tonne			100.00	100.00	100.00	100.00
6.0	ROM cost (3.0+4.5+5.0)	Rs/Tonne			922.52	909.28	788.92	797.12


  
(Petitioner)

		<u>Statement showing claimed capital cost</u>					PART-IV FORM-2	
		Amount in Rs Lakhs						
Name of the Petitioner: NTPC Ltd								
Name of the Integrated Mine: Dulanga								
S. No.	Particulars	2019-20	2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24		
1	2	3	4	5	6	7		
1	Opening Capital Cost		73,061.41	81,751.39	90,127.80	95,066.06		
2	Add: Addition during the year/period		2,025.00	1,275.00	750.00	1,620.00		
3	Less: De-capitalization during the year/period							
4	Add: Discharges of Liability during the year/ period	Not Applicable						
5	<b>Closing Capital Cost (1+2-3+4)</b>		6,664.98	7,101.41	4,188.26	2,657.50		
6	<b>Average Capital Cost</b>		81,751.39	90,127.80	95,066.06	99,343.56		
			77,406.40	85,939.59	92,596.93	97,204.81		
							 (Petitioner)	

		<u>Statement showing claimed Return on Equity</u>				PART-IV FORM-2A			
						Amount in Rs Lakhs			
Name of the Petitioner: NTPC Ltd									
Name of the Integrated Mine: Dulanga									
Sr	Particulars	2019-20	2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24			
1	2	3	4	5	6	7			
<b>Return on Equity</b>									
1	Opening Equity								
2	Add: Increase in equity due to addition during the year / period		21,918.42	24,525.42	27,038.34	28,519.82			
3	Less: Decrease due to De-capitalization during the year / period		607.50	382.50	225.00	486.00			
4	Add: Increase due to discharges during the year / period								
5	<b>Closing Equity (1+2-3+4)</b>	Not Applicable	1,999.49	2,130.42	1,256.48	797.25			
6	Average Equity		24,525.42	27,038.34	28,519.82	29,803.07			
7	Rate of ROE (Pre Tax)		23,221.92	25,781.88	27,779.08	29,161.44			
			16.96	16.96	16.96	16.96			
8	Total ROE		3,939.35	4,373.62	4,712.43	4,946.93			
 (Petitioner)									

<b>Statement showing claimed O&amp;M cost</b>						
<b>PART-IV FORM-2B</b>						
Name of the Petitioner: NTPC Ltd						
Name of the Integrated Mine: Dulanga						
S. No.	Particulars	2019-20	2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24
Amount in Rs Lakhs						
1	2	3	4	5		7
1	Opening Capital Cost					
2	Add: Addition during the year/period					
3	Less: De-capitalization during the year/period					
4	Add: Discharges of Liability during the year/period					
5	<b>Closing Capital Cost (1+2-3+4)</b>					
6	Average Capital Cost					
7	Projected annual O&M in terms of Regulation 36I		4,416.16	4,570.73	4,730.71	4,896.28
8	Annual Charge of Agency(ies) Other Than MDO*		901.7	1106.9	1231.97	1249.65
9	Total projected annual O&M		5,317.86	5,677.63	5,962.68	6,145.93
		Not Applicable				

  
(Petitioner)

\* Consists of sampling charges by CIMFR and loading charges in lieu of non completion of loading facilities. Projected O&M expenditure is based on actuals for 2020-21 with 3.5% escalation in subsequent years.

Mine Characteristics/Important Details as per Approved Mine Plan dated (14/08/2012)		PART- IV FORM-3	
Name of the Petitioner: NTPC Ltd			
Name of the Integrated Mine: Dulanga			
Sr No	Parameters	Values	
1	Mining plan/Mine closure plan Revision number and date of revision, if any	No. 13016/27/2012-CA-I dated 14.08.2012 of MoC, Gol	
2	Peak rated Capacity	7 MTPA	
3	Year in which proposed to be achieved	2022-23	
4	Mineable reserves	152.05 Mt	
5	Mining area land - Acquired/ Leased	762.42 Ha	
6	If Leased - Period and terms of lease		
7	Mining Block Area	567.19 Ha	
8	Type of Mining	Opencast	
9	Method of Mining	Mechanised Opencast mining using Shovel dumper combination for OB removal and Surface Miner for coal extraction	
10	Mine life in Years	24 years (Excluding construction period and Mine closure period)	
11	Scheduled date of commercial operation as per Investment approval	N/A	
12	Distance of Loading Point from mine end	1 Km	
13	Gross Calorific value (GCV in Kcal/Kg) of coal as per Geological Report, Range ,Mean	2870 - 5330, 4008	
14	Specific gravity of coal (Avg)	1.58 Tonne/m3	
15	Main Equipments	Shovel, Dumper, Surface Miner, Loader Dozer, Motor Grader, Coal Handling Equipments	
16	Other Important Parameters as deemed necessary	Coal production started on 19.09.2018	
CALENDER PRODUCTION PROGRAMME DURING THIS TARIFF PERIOD			
Production Year/s	Coal Production (Mt)	OB Removal (Mm <sup>3</sup> )	Stripping Ratio (m <sup>3</sup> /t)
2019-20	1.88	8.00	4.26
2020-21	3.67	11.54	3.14
2021-22	4.47	10.85	2.43
2022-23	7.00	18.00	2.57
2023-24	7.00	18.40	2.63
ACTUAL PRODUCTION ACHIEVED DURING THIS TARIFF PERIOD			
Production Year/s	Coal Production (Mt)	OB Removal (Mm <sup>3</sup> )	Stripping Ratio (m <sup>3</sup> /t)
2019-20	Shall be provided at the time of truing up		
2020-21			
2021-22			
2022-23			
2023-24			
 (Petitioner)			

Note: In view of 2nd wave of COVID pandemic, production schedule for the year 2021-22 has been reduced to 75% of mining plan by MoP vide letter dtd 19.07.2021. Copy of the letter dtd 19.07.2021 is attached as **Annexure-I**. Accordingly, ATQ for the year 2021-22 has been adjusted.

<u>Normative parameters considered for Input Price computations</u>										PART-IV FORM-3A	
Name of the Petitioner: NTPC Ltd											
Name of the Integrated Mine: Dulanga											
Particulars	Unit	Existing 2018-19	2019-20	2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24				
1	2	3	4	5	6	7	8				
Base Rate of Return on Equity	%			14	14	14	14				
Effective Tax Rate	%			17.472	17.472	17.472	17.472				
Input Cost of Coal for WC	in days		Not Applicable	7	7	7	7				
Consumption of stores and spares % of O&M	%	Not Applicable		15	15	15	15				
One Month O&M Expenses	Rs lakh			443.16	473.14	496.89	512.16				
Rate of Interest on Working Capital	%			11.25	10.50	10.50	10.50				

  
(Petitioner)

<b>Financial Package up to Date of Commercial Operation and up to date of Peak Rated Capacity</b>				Part-IV Form-6
Name of the Company		NTPC LTD		
Name of the Coal Mine		Dulanga		
(Rs. in Lakhs)				
S.No.	Financial Package as on 01.10.2020	Loan Amount	Repayment/ Adjustment	Loan o/s as on COD
1	HDFC Bank Limited-IV	900.00		900.00
2	HDFC Bank Limited-V	2400.00		2400.00
3	State Bank of India - IX	1300.00	1300.00	0.00
4	State Bank of India - X	2500.00		2500.00
5	State Bank of India - XI	2500.00		2500.00
6	State Bank of India - XII	3000.00		3000.00
7	SBI-XIII	500.00		500.00
8	HDFC Bank Limited-VII	5000.00	5000.00	0.00
9	ICICI Bank-VII	0.00		0.00
10	Bonds Sr 66	25400.00		25400.00
11	Bonds Sr 69	5000.00		5000.00
12	<b>Total</b>	<b>48500.00</b>	<b>6300.00</b>	<b>42200.00</b>
 Petitioner				

<b>Financial Package up to Date of Commercial Operation and up to date of Peak Rated Capacity</b>			<b>Part-IV Form-8</b>
Name of the Company	NTPC LTD		
Name of the Coal Mine	Dulanga		
			(Rs. in Lakhs)
<b>Particulars</b>	<b>As on 01.10.2020</b>		<b>27.01.2021 onward</b>
Source of Loan - Bonds Series	66	69	73
Currency	INR	INR	INR
Amount of Loan sanctioned (In Lakh)	3,92,500.00	4,30,000.00	2,50,000.00
Amount of Gross Loan drawn upto COD (In Lakh)	3,92,500.00	4,30,000.00	2,50,000.00
Interest Type	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable*	7.37%	7.32%	6.43%
Base Rate, if Floating Interest	N/A	N/A	N/A
Margin, if Floating Interest	N/A	N/A	N/A
Are there any Caps/Floor	No	No	No
If above is yes,specify caps/floor	N/A	N/A	N/A
Moratorium Period (In Years)	15	10	10
Moratorium effective from**	14-12-2016	17-07-2019	27-01-2021
Repayment Period	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment effective from	14-12-2031	17-07-2029	27-01-2031
Repayment Frequency	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment Instalment (In Lakh)	3,92,500.00	4,30,000.00	2,50,000.00
Base Exchange Rate	N/A	N/A	N/A
Door to Door Maturity (In Years)	15	10	10
<b>Name of the Projects</b>	<b>66</b>	<b>69</b>	<b>73</b>
Auraiya R & M			200.00
Barh I	46,300.00	84,200.00	51,000.00
Barh II	2,000.00	1,400.00	-
Bongaigaon	12,700.00	17,100.00	-
Chatti Bariatu CMB	300.00	3,000.00	825.00
Corporate Centre			-
Dadri Gas R & M			-
Darlipalli	36,400.00	40,000.00	28,300.00
<b>Dulanga CMB</b>	<b>25,400.00</b>	<b>5,000.00</b>	<b>2,700.00</b>
Farakka III			-
Farakka R & M		1,000.00	1,700.00
Gadarwara	28,100.00	47,600.00	19,000.00
Gandhar R & M			-
Kahalgaon II Phase I	600.00		-
Kahalgaon R & M			600.00
Khargone	24,700.00	13,500.00	3,000.00
Koldam	900.00		-
Korba III	900.00		-
Korba R & M			2,300.00
Kudgi FGD		2,500.00	-
Kudgi	30,300.00	21,500.00	-
Lara I	39,500.00	10,600.00	1,700.00
Mauda I	3,200.00	6,000.00	-
Mauda II	11,000.00	29,000.00	-
NCPS-FGD		6,500.00	-
North Karanpura	32,300.00	15,000.00	9,500.00
Pakri Barwadih CMB	6,000.00		-
Ramagundam I & II R & M			4,200.00
Ramagundum Floating Solar-100 MW		1,000.00	3,375.00
Rammam	2,000.00	2,500.00	3,300.00
Rihand III	3,200.00		-
Rihand R & M			1,200.00

Particulars	As on 01.10.2020		27.01.2021 onward
Simhadari II	2,000.00		-
Vindhyachal Hydro (Singrauli Hydro)			2,800.00
Singrauli R & M		1,000.00	4,200.00
Sipat I	1,700.00		-
Solapur	25,300.00	21,500.00	-
Talchar II	500.00		-
Talcher R & M			500.00
Talcher Thermal R & M			-
Tanda II	21,600.00	17,000.00	9,500.00
Tanda R& M			-
Tapovan Vishnugad	8,400.00	16,600.00	6,200.00
Talaipali Coal Mine		11,500.00	19,400.00
Telangana	5,800.00	37,000.00	-
Unchahar III			-
Unchahar IV	14,700.00	14,000.00	-
Unchahar R & M			500.00
Vindhyachal IV	3,100.00		-
Vindhyachal V	3,600.00		-
Bilhaur Solar 140 MW		1,000.00	3,160.00
Bilhaur Solar 85 MW		3,000.00	5,140.00
Auraiya Solar 20MW			400.00
Simhadri Floating			1,875.00
Kayamkulam FS ( 70 MW)			1,830.00
Jetsar Solar			9,225.00
FATEHGARH SPV-GEN			10,250.00
Faridabad R&M			100.00
Kirendari			7,350.00
ETTAYAPURAM SOLAR			21,975.00
TTPS R&M			100.00
Kayamkulam FS ( 22 MW)			170.00
Sambhu Ki Bhurj Solar 250MW			2,700.00
Telangana			9,725.00
<b>TOTAL</b>	<b>3,92,500.00</b>	<b>4,30,000.00</b>	<b>2,50,000.00</b>
*Surveillance fee @0.03%			
**Moratorium period has been taken as the period from Deemed Date of Allotment till the date of first Redemption.			
			 <b>Petitioner</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

T00001

BP NO 5050000521

D00001

Unsecured Loan From HDFC Bank Ltd.-IV		
Source of Loan :	HDFC Bank Ltd.-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal:	17.04.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.90%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	17.04.2017	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	17.04.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	40,00,00,000.00
	DULANGA COAL MINE	9,00,00,000.00
	VINDHYACHAL-IV	41,00,00,000.00
	MOUDA-I	50,00,00,000.00
	ANANTPUR SOLAR PV	60,00,00,000
	<b>Total Allocated Amount</b>	<b>1,00,00,00,000</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000561

T00001

D00001

Unsecured Loan From HDFC Bank Ltd. V		
Source of Loan :	HDFC Bank Ltd. V	
Currency :	INR	
Amount of Loan :	25,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of drawl	25.09.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.90%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	25.09.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	25.09.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
	Project Name	Amount
	TANDA-II	13,85,00,000
	RAMMAM	3,00,00,000
	KHARGONE	89,68,00,000
	TELANGANA	16,00,00,000
	MANDSAUR SOLAR PV	11,00,00,000
	ROJMAL WIND	21,00,00,000
	MOUDA-II	39,84,00,000
	KUDGI	2,76,97,00,000
	CHATTI BARIATU CMB	19,13,00,000
	DULANGA COAL MINE	6,00,00,000
	MOUDA-I	3,53,00,000
	<b>Total Allocated Amount</b>	<b>5,00,00,00,000</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000561

T00001

D00003

Unsecured Loan From HDFC Bank Ltd. V		
Source of Loan :	HDFC Bank Ltd. V	
Currency :	INR	
Amount of Loan :	25,00,00,00,000	
Total Drawn amount :	2,00,00,00,000	
Date of drawl	13.11.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.90%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	13.11.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	25.09.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
	Project Name	Amount
	SOLAPUR	77,00,00,000
	PAKRI BARWADIH COAL MINE	26,00,00,000
	BONGAIGAON	27,00,00,000
	TELANGANA	12,00,00,000
	BARH - II	10,00,00,000
	ROJMAL WIND	15,00,00,000
	LARA	10,00,00,000
	CHATTI BARIATU CMB	15,00,00,000
	DULANGA COAL MINE	8,00,00,000
	<b>Total Allocated Amount</b>	<b>2,00,00,00,000</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000561

T00001

D0009

Unsecured Loan From HDFC Bank Ltd. V		
Source of Loan :	HDFC Bank Ltd. V	
Currency :	INR	
Amount of Loan :	25,00,00,00,000	
Total Drawn amount :	2,20,00,00,000	
Date of drawl	02.07.2018	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	8.10%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	02.07.2018	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	25.09.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
	Project Name	Amount
	LARA-I	50,00,00,000
	DULANGA COAL MINE	10,00,00,000
	TALAIPALI COAL MINE	10,00,00,000
	NORTH KARANPURA	75,00,00,000
	KHARGONE	75,00,00,000
	<b>Total Allocated Amount</b>	<b>2,20,00,00,000</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000791

T00001

D00001

Unsecured Loan From HDFC Bank Ltd. VII		
Source of Loan :	HDFC Bank Ltd. VII	
Currency :	INR	
Amount of Loan :	25,00,00,00,000	
Total Drawn amount :	3,85,00,00,000	
Date of drawl	11.06.2019	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	8.40%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	11.06.2019	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	11.06.2026	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BONGAIGAON	1,21,00,00,000
	LARA	28,00,00,000
	TAPOVAN VISHNUGAD	15,00,00,000
	BARH-I	98,00,00,000
	GADARWARA	20,00,00,000
	CHATTI BARIATU CMB	18,00,00,000
	DARLIPALLI	20,00,00,000
	DULANGA CMB	35,00,00,000
	TALAIPALI CMB	30,00,00,000
<b>Total Allocated Amount</b>		<b>3,85,00,00,000</b>

**Form 8  
TRANCHE NO**

BP NO 5050000791

T00001

D00005

Unsecured Loan From HDFC Bank Ltd. VII		
Source of Loan :	HDFC Bank Ltd. VII	
Currency :	INR	
Amount of Loan :	25,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Date of drawl	11.02.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.50%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	11.02.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	11.06.2026	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	30,00,00,000
	TAPOVAN VISHNUGAD	20,00,00,000
	NORTH KARANPURA	20,00,00,000
	DARLIPALLI	35,00,00,000
	RAMMAM	20,00,00,000
	BARAUNI-II	1,30,00,00,000
	DULANGA CMB	15,00,00,000
	TALAIPALI CMB	30,00,00,000
<b>Total Allocated Amount</b>		<b>3,00,00,00,000</b>



**Statement Giving Details of Project Financed through a Combination of loan  
Form 8**

**TRANCHE NO**

**BP NO 5050000551**

**T00001**

**D00009**

<b>Unsecured Loan From SBI-X</b>		
Source of Loan :	<b>SBI-X</b>	
Currency :	INR	
Amount of Loan :	40,00,00,00,000	
Total Drawn amount :	3,00,00,00,000	
Date of Drawal:	01.05.2018	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	7.85%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	01.05.2018	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	PAKRI BARWADIH CMB	70,00,00,000
	CHATTI BARIATU CMB	15,00,00,000
	DULANGA COAL MINE	25,00,00,000
	TALAI PALI COAL MINE	1,90,00,00,000
<b>Total Allocated Amount</b>		<b>3,00,00,00,000.00</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000661

T00001

D00002

Unsecured Loan From SBI-XI		
Source of Loan :	SBI-XI	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal:	16.10.2018	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	8.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	16.10.2018	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	NORTH KARANPURA	95,00,00,000
	DARLIPALLI	1,00,00,00,000
	KHARGONE	1,20,00,00,000
	TELANGANA	90,00,00,000
	DULANGA COAL MINE	25,00,00,000
	TALAIPALI COAL MINE	70,00,00,000
<b>Total Allocated Amount</b>		<b>5,00,00,00,000.00</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000741

T00001

D00001

Unsecured Loan From SBI-XII		
Source of Loan :	SBI-XII	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	7,50,00,00,000	
Date of Drawal:	11.02.2019	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	8.35%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	11.02.2019	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.03.2026	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	1,30,00,00,000.00
	TAPOVAN VISHNUGARH	15,00,00,000.00
	BONGAIGAON	65,00,00,000.00
	SOLAPUR	40,00,00,000.00
	GADARWARA	90,00,00,000.00
	DARLIPALLI	60,00,00,000.00
	TANDA-II	50,00,00,000.00
	KHARGONE	90,00,00,000.00
	TELANGANA	70,00,00,000.00
	CHATTI BARIATU	15,00,00,000.00
	DULANGA	20,00,00,000.00
	TALAIPALI	80,00,00,000.00
	NCPS-FGD	25,00,00,000.00
<b>Total Allocated Amount</b>		<b>7,50,00,00,000.00</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8  
TRANCHE NO

BP NO 5050000741

T00001

D00003

Unsecured Loan From SBI-XII		
Source of Loan :	SBI-XII	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal:	26.03.2019	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	8.35%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	26.03.2019	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.03.2026	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	40,00,00,000.00
	UNCHAHAR STPP IV	1,20,00,00,000.00
	LARA	30,00,00,000.00
	NORTH KARANPURA	30,00,00,000.00
	GADARWARA	60,00,00,000.00
	DARLIPALLI	41,00,00,000.00
	TANDA-II	30,00,00,000.00
	KHARGONE	60,00,00,000.00
	TELANGANA	60,00,00,000.00
	CHATTI BARIATU	5,00,00,000.00
	DULANGA	10,00,00,000.00
	TALAIPALI	10,00,00,000.00
	NCPS-FGD	4,00,00,000.00
	<b>Total Allocated Amount</b>	<b>5,00,00,00,000.00</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000861

T00001

D00001

Unsecured Loan From SBI-XIII		
Source of Loan :	SBI-XIII	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	2,00,00,00,000	
Date of Drawal:	24.03.2020	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	7.45%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	24.03.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	12 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	24.03.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BILHAUR SOLAR 140MW	25,00,00,000.00
	BILHAUR SOLAR 85MW	4,00,00,000.00
	AURAIYA SOLAR 20MW	16,00,00,000.00
	JETSAR SOLAR	5,00,00,000.00
	DEVIKOT SOLAR	23,00,00,000.00
	SAMBHU KI BHURJ SOLAR	47,00,00,000.00
	KORBA R&M	5,00,00,000.00
	RAMAGUNDAM R&M	10,00,00,000.00
	VINDHYACHAL R&M	20,00,00,000.00
	CHATTI BARIATU CMB	20,00,00,000.00
	DULANGA COAL MINE	5,00,00,000.00
	TALAI PALI COAL MINE	20,00,00,000.00
<b>Total Allocated Amount</b>		<b>2,00,00,00,000.00</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 50500001042

T00001

D00002

Unsecured Loan From ICICI-VII		
Source of Loan :	ICICI-VII	
Currency :	INR	
Amount of Loan :	30,00,00,00,000	
Total Drawn amount :	9,77,21,00,000	
Date of Drawal	30.12.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	6.00%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	30.12.2020	
Repayment Period (Inc Moratorium) :	15 years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	30.12.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	THDC	5,06,81,00,000.00
	NEEPCO	2,70,40,00,000.00
	BILHAUR SOLAR 140MW	25,00,00,000.00
	BILHAUR SOLAR 85MW	4,00,00,000.00
	AURAIYA SOLAR 20MW	16,00,00,000.00
	JETSAR SOLAR	5,00,00,000.00
	DEVIKOT SOLAR	23,00,00,000.00
	SAMBHU KI BHURJ	47,00,00,000.00
	KORBA-R&M	5,00,00,000.00
	RAMAGUNDAM-R&M	10,00,00,000.00
	VSTPS R&M	20,00,00,000.00
	CHATTI BARIATU	20,00,00,000.00
	DULANGA CMB	5,00,00,000.00
	TALAI PALI	20,00,00,000.00
	<b>Total Allocated Amount</b>	<b>9,77,21,00,000.00</b>

**Year wise Statement of Additional Capitalization after date of Commercial operation up to/beyond achieving Peak rated Capacity**

**Part-IV  
Form-9**

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Dulanga

Date of Commercial Operation: 01.10.2020

**Financial Year 2020-21 (01.10.2020 to 31.03.2021)**

S. No.	Head of Work / Equipment	ACE Claimed (Actual / Projected)			Regulations under which claimed	Justification	Amount in Rs Lakhs	
		Accrual basis	Un-discharged Liability included in column 3	Cash basis IDC included in col. 3			Admitted Cost by the Commission, if any	
1	2	3	4	5 = 3 - 4	7	8	9	
1	Land	1,525.00	-	1,525.00	36 E ( 1e )	Expenditure required for progressive land acquisition as per mine plan. Hon'ble Commission may be pleased to allow the capitalization.		
2	Construction of buildings	600.00	100.00	500.00	36 E (1a)	Expenditure required towards construction of building as envisaged in mine plan and Investment Approval. Hon'ble Commission may be pleased to allow the capitalization.		
<b>Total</b>		<b>2,125.00</b>	<b>100.00</b>	<b>2,025.00</b>				
3	Liability Discharge			6,664.98				
	<b>Total</b>	<b>2,125.00</b>	<b>100.00</b>	<b>8,689.98</b>				

  
(Petitioner)

Year wise Statement of Additional Capitalization after date of Commercial operation up to/beyond achieving Peak rated Capacity							Part-IV Form-9
Name of the Petitioner: NTPC Ltd							Amount in Rs Lakhs
Name of the Integrated Mine: Dulanga							
Date of Commercial Operation: 01.10.2020							
Financial Year 2021-22							
S. No.	Head of Work/ Equipment	Accrual basis	ACE Claimed (Actual / Projected)		Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
			Un-discharged Liability included in column 3	Cash basis IDC included in col. 3 (5 = 3 - 4)			
1		3	4	6	7	8	9
1	Land	350.00	-	350.00	36 E ( 1 e )	Expenditure required for progressive land acquisition as per mine plan. Hon'ble Commission may be pleased to allow the capitalization.	
2	Forest diversion compliance cost	25.00	-	25.00	36 E ( 1 a )	Expenditure towards compliance to conditions laid down in Forest Clearance accorded for the Project. Hon'ble Commission may be pleased to allow the capitalization.	
3	Ash Utilization in Overburden Dump	20.00	-	20.00	36 E ( 1 g )	It is submitted that MOEF &CC vide OM dtd 28th Aug 2019 has changed the conditions stipulated in the existing Environmental Clearances of Thermal Power Plants and Coal mines and prescribed to follow the guidelines prepared by CPCB for disposal of ash in abandoned or working mines. Copy of OM dtd 28th Aug 2019 is attached as Annexure-G. Point no 1.5.6 and 1.9 of Appendix to CPCB guidelines annexed with the above OM provides for construction of toe wall and proper check drains/ garland drains around the OB dumps to ensure that the sludge or waste materials along with the ash does not go into any river, nullah, water streams or any other surface water bodies. The projected capital expenditure is towards the expenditure to be incurred in compliance with the above CPCB guidelines. Hon'ble Commission may be pleased to allow the same.	

4	Installation of CAAQMS	80.00	-	80.00	36 E ( 1c )	Expenditure is towards installation of Continuous Ambient Air Quality Monitoring System in terms of consent to operate dtd 26.03.2021 granted by State Pollution Control Board. Copy of CTO dtd 26.03.2021 is attached as Annexure H. Hon'ble Commission may be pleased to allow the capitalization.
5	Construction of buildings	900.00	100.00	800.00	36 E ( 1a )	Expenditure required towards construction of building as envisaged in mine plan and Investment Approval. Hon'ble Commission may be pleased to allow the capitalization.
<b>Total</b>		<b>1,375.00</b>	<b>100.00</b>	<b>1,275.00</b>		
6	Liability Discharge			7,101.41		
	<b>Total</b>	<b>1,375.00</b>	<b>100.00</b>	<b>8,376.41</b>		

  
(Petitioner)

**Year wise Statement of Additional Capitalization after date of Commercial operation up to/beyond achieving Peak rated Capacity**

**Part-IV  
Form-9**

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Dulanga

Date of Commercial Operation: 01.10.2020

**Financial Year 2022-23**

S. No.	Head of Work / Equipment	ACE Claimed (Actual / Projected)			Regulations under which claimed	Justification	Amount in Rs Lakhs	
		Accrual basis	Un-discharged Liability included in column 3	Cash basis IDC included in col. 3			Admitted Cost by the Commission, if any	
1	2	3	4	6	7	8	9	
1	Land	200.00	-	200.00	36 E ( 1e )	As per sl no 1 of form 9 for year 2021-22		
2	Forest diversion compliance cost	20.00	-	20.00	36 E ( 1a )	As per sl no 2 of form 9 for year 2021-22		
3	Ash Utilization in Overburdon Dump	20.00	-	20.00	36 E ( 1g )	As per sl no 3 of form 9 for year 2021-22		
4	Mine development expenses: Construction of approach road	10.00		10.00	36 E ( 1a )	Expenditure is towards construction of approach roads to enable sustained operation of mine at peak rated capacity. Hon'ble Commission may be pleased to allow the same.		
5	Construction of buildings	500.00	-	500.00	36 E ( 1a )	As per sl no 5, year 2021-22		
<b>Total</b>		<b>750.00</b>		<b>750.00</b>				
6	Liability Discharge			4,188.26				
	<b>Total</b>	<b>750.00</b>	<b>-</b>	<b>4,938.26</b>				

  
(Petitioner)

Year wise Statement of Additional Capitalization after date of Commercial operation up to/beyond achieving Peak rated Capacity									
Part-IV Form-9									
Name of the Petitioner: NTPC Ltd									
Name of the Integrated Mine: Dulanga									
Date of Commercial Operation: 01.10.2020									
Financial Year 2023-24									
S. No.	Head of Work/ Equipment	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Amount in Rs Lakhs	
		Accrual basis	Un-discharged Liability included in column 3	Cash basis (5 = 3 - 4)	IDC included in col. 3			Admitted Cost by the Commission, if any	
1	2	3	4	(5 = 3 - 4)	6	7	8	9	
1	Land	600.00		600.00		36E ( 2d)	As per sl no 1 of form 9 for year 2021-22		
2	Forest diversion compliance cost	20.00		20.00		36E ( 2a)	As per sl no 2 of form 9 for year 2021-22		
3	Mine development expenses: Construction of approach road	1,000.00		1,000.00		36E ( 2a)	As per sl no 4 of form 9 for year 2022-23		
<b>Total</b>		<b>1,620.00</b>		<b>1,620.00</b>					
4	Liability Discharge			2,657.50					
	<b>Total</b>	<b>1,620.00</b>	<b>-</b>	<b>4,277.50</b>					



(Petitioner)

<u>Calculation of Depreciation</u>				PART- IV FORM- 11
Name of the Petitioner: NTPC Ltd				
Name of the Integrated Mine: Dulanga				
(Amount in Rs Lakh)				
S. No.	Name of the Assets	Useful Life (Years)	Gross Block as on 01.10.2020	Depreciation Amount for 2020-21
1	2	3A	4	5 = 3 X 4
1	Free hold Land			
2	Leasehold Land	24	21327.01	888.63
3	Coal Bearing Land	24	53174.77	2215.62
4	Other Buildings	24	231.94	9.18
5	Temporary erection	1	5.76	5.76
6	Plant and machinery	15	128.31	8.13
7	Furniture and fixtures	15	135.00	8.55
8	Other Office Equipments	15	120.69	7.64
9	EDP, WP machines & SATCOM equipment	15	70.26	4.68
10	Vehicles including speedboats	10	1.27	0.12
11	Electrical installations	15	16.50	1.05
12	Communication equipment	15	18.29	1.16
13	Hospital equipment	15	8.65	0.55
14	Laboratory and workshop equipment	15	48.33	3.06
15	Software	3	11.40	3.80
16	Mine development expenses	20	29371.46	1468.57
	<b>TOTAL</b>		104669.65	4626.49
	<b>Weighted Average Rate of Depreciation %</b>			4.42%

  
 (Petitioner)

**Statement of Depreciation**

**PART- IV  
FORM- 12**

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Dulanga

S. No.	Particulars	Existing 2018-19	2019-20	(Amount in Rs Lakh)			
				2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1.	Opening Capital Cost			73,061.41	81,751.39	90,127.80	95,066.06
2.	Closing Capital Cost			81,751.39	90,127.80	95,066.06	99,343.56
3.	<b>Average Capital Cost</b>			77,406.40	85,939.59	92,596.93	97,204.81
4.	Freehold land						
4A	Assets having zero salvage value			29453.12	29453.12	29453.12	29453.12
5.	Rate of depreciation			4.42%	4.42%	4.42%	4.42%
6.	Depreciable value			75,008.73	83,115.27	89,439.74	93,817.22
7.	Balance useful life at the beginning of the period		Not Applicable	24	23	22	21
8.	Remaining depreciable value			75,008.73	81,409.24	83,935.10	84,219.72
9.	<b>Depreciation (for the period)</b>			1,706.03	3,798.61	4,092.87	4,296.54
10.	<b>Depreciation (annualized)</b>			3,421.43	3,798.61	4,092.87	4,296.54
11.	Cumulative depreciation at the end of the period			1,706.03	5,504.63	9,597.50	13,894.04
12.	Less: Cumulative depreciation adjustment on account of de-capitalization						
13.	Net Cumulative depreciation at the end of the period			1,706.03	5,504.63	9,597.50	13,894.04

  
(Petitioner)

Calculation of Weighted Average Rate of Interest on Actual Loans

PART-IV  
FORM- 13

Name of the Petitioner: NTPC Ltd

Name of the Integrated Mine: Dulanga

(Amount in Rs. Lakh)

S.No.	Particulars	As on COD 01.10.2020	01.10.2020 to 31.03.2021	2021-22	2022-23	2023-24
1	<b>Bonds Series - 66</b>					
	Gross Loan - Opening	25,400.00	25,400.00	25,400.00	25,400.00	25,400.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	-	-
	Net Loan - Opening	25,400.00	25,400.00	25,400.00	25,400.00	25,400.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	25,400.00	25,400.00	25,400.00	25,400.00	25,400.00
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	25,400.00	25,400.00	25,400.00	25,400.00	25,400.00
	Average Net Loan	25,400.00	25,400.00	25,400.00	25,400.00	25,400.00
	Rate of Interest on Loan	7.37%	7.37%	7.37%	7.37%	7.37%
	Interest on Loan (Annulaised)	1871.98	1871.98	1871.98	1871.98	1871.98
2	<b>Bonds Series - 69</b>					
	Gross Loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	-	-
	Net Loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
	Average Net Loan	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
	Rate of Interest on Loan	7.35%	7.35%	7.35%	7.35%	7.35%
	Interest on Loan	367.50	367.50	367.50	367.50	367.50
3	<b>Bonds Series - 73</b>					
	Gross Loan - Opening	-	-	2,700.00	2,700.00	2,700.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	-	-
	Net Loan - Opening	-	-	2,700.00	2,700.00	2,700.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	2,700.00	-	-	-
	Total	-	2,700.00	2,700.00	2,700.00	2,700.00
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	-	2,700.00	2,700.00	2,700.00	2,700.00
	Average Net Loan	-	1,350.00	2,700.00	2,700.00	2,700.00
	Rate of Interest on Loan	-	6.43%	6.43%	6.43%	6.43%
	Interest on Loan	0.00	86.81	173.61	173.61	173.61
4	<b>HDFC Bank Limited-IV</b>					
	Gross Loan - Opening	900.00	900.00	900.00	900.00	900.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	100.00	200.00
	Net Loan - Opening	900.00	900.00	900.00	800.00	700.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	900.00	900.00	900.00	800.00	700.00
	Repayments of Loans during the Period	-	-	100.00	100.00	100.00
	Net Loan - Closing	900.00	900.00	800.00	700.00	600.00
	Average Net Loan	900.00	900.00	850.00	750.00	650.00
	Rate of Interest on Loan	6.11%	6.11%	5.95%	5.95%	5.95%
	Interest on Loan	55.00	55.00	50.58	44.63	38.68
5	<b>HDFC Bank Limited-V</b>					
	Gross Loan - Opening	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00

	Cumulative Repayments of Loans upto Previous Period	-	-	-	-	-
	Net Loan - Opening	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
	Average Net Loan	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
	Rate of Interest on Loan	6.11%	6.11%	5.95%	5.95%	5.95%
	Interest on Loan	146.66	146.66	142.80	142.80	142.80
6	State Bank of India - IX					
	Gross Loan - Opening	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00
	Cumulative Repayments of Loans upto Previous Period	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00
	Net Loan - Opening	-	-	-	-	-
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	-	-	-	-	-
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	-	-	-	-	-
	Average Net Loan	-	-	-	-	-
	Rate of Interest on Loan	7.65%	7.65%	7.65%	7.65%	7.65%
	Interest on Loan	0.00	0.00	0.00	0.00	0.00
				0	0	0
7	State Bank of India - X			0	0	0
	Gross Loan - Opening	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	-	-
	Net Loan - Opening	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Average Net Loan	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Rate of Interest on Loan	6.65%	6.65%	6.65%	6.65%	6.65%
	Interest on Loan	166.25	166.25	166.25	166.25	166.25
				0	0	0
8	State Bank of India - XI			0	0	0
	Gross Loan - Opening	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	-	-
	Net Loan - Opening	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Average Net Loan	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	Rate of Interest on Loan	6.65%	6.65%	6.65%	6.65%	6.65%
	Interest on Loan	166.25	166.25	166.25	166.25	166.25
				0	0	0
9	State Bank of India - XII			0	0	0
	Gross Loan - Opening	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	-	-
	Net Loan - Opening	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
	Repayments of Loans during the Period	-	-	-	-	-

	Net Loan - Closing	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
	Average Net Loan	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
	Rate of Interest on Loan	6.65%	6.65%	6.65%	6.65%	6.65%
	Interest on Loan	199.50	199.50	199.50	199.50	199.50
10	SBI-XIII					
	Gross Loan - Opening	500.00	500.00	500.00	500.00	500.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	500.00	500.00
	Net Loan - Opening	500.00	500.00	500.00	-	-
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	500.00	500.00	500.00	-	-
	Repayments of Loans during the Period	-	-	500.00	-	-
	Net Loan - Closing	500.00	500.00	-	-	-
	Average Net Loan	500.00	500.00	250.00	-	-
	Rate of Interest on Loan	6.65%	6.65%	6.65%	6.65%	6.65%
	Interest on Loan	33.25	33.25	16.63	0.00	0.00
11	HDFC Bank Limited-VII					
	Gross Loan - Opening	5,000.00	5,000.00	-	-	-
	Cumulative Repayments of Loans upto Previous Period	5,000.00	5,000.00	-	-	-
	Net Loan - Opening	-	-	-	-	-
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	-	-	-	-
	Total	-	-	-	-	-
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	-	-	-	-	-
	Average Net Loan	-	-	-	-	-
	Rate of Interest on Loan	7.45%	7.45%	7.45%	7.45%	7.45%
	Interest on Loan	0.00	0.00	0.00	0.00	0.00
12	ICICI Bank-VII					
	Gross Loan - Opening	-	-	500.00	500.00	500.00
	Cumulative Repayments of Loans upto Previous Period	-	-	-	-	-
	Net Loan - Opening	-	-	500.00	500.00	500.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	500.00	-	-	-
	Total	-	500.00	500.00	500.00	500.00
	Repayments of Loans during the Period	-	-	-	-	-
	Net Loan - Closing	-	500.00	500.00	500.00	500.00
	Average Net Loan	-	250.00	500.00	500.00	500.00
	Rate of Interest on Loan	-	6.02%	6.24%	6.24%	6.24%
	Interest on Loan	0.00	15.04	31.20	31.20	31.20
	<b>Total Loan</b>					
	Gross Loan - Opening	48,500.00	48,500.00	51,700.00	51,700.00	51,700.00
	Cumulative Repayments of Loans upto Previous Period	6,300.00	6,300.00	6,300.00	6,900.00	7,000.00
	Net Loan - Opening	42,200.00	42,200.00	45,400.00	44,800.00	44,700.00
	Increase / Decrease due to FERV	-	-	-	-	-
	Increase / Decrease due to ACE / Drawl during the period	-	3,200.00	-	-	-
	Total	42,200.00	45,400.00	45,400.00	44,800.00	44,700.00
	Repayments of Loans during the Period	-	-	600.00	100.00	100.00
	Net Loan - Closing	42,200.00	45,400.00	44,800.00	44,700.00	44,600.00
	Average Net Loan	42,200.00	43,800.00	45,100.00	44,750.00	44,650.00
	Rate of Interest on Loan	7.12%	7.10%	7.06%	7.07%	7.07%
	Interest on Loan	3,006.39	3,108.24	3,186.29	3,163.72	3,157.77



Form 14  
Name of the Company  
Name of the mine

(Amt in ₹)  
NTPC Ltd  
Dulanga CMP

Name of the Bank	Q4 2019-20	Q1 2020-21	Q2 2020-21	Q3 2020-21	Q4 2020-21	TOTAL 20-21
HDFC Bank Limited-IV	17,01,247	15,86,589	14,29,151	14,22,247	13,20,411	57,58,398
Drawl Amount						
Interest Debit						
Interest Credit						
Adj. Amount						
Net Charges	17,01,247	15,86,589	14,29,151	14,22,247	13,20,411	57,58,398
Financial charges						
HDFC Bank Limited-V	45,36,656	42,30,904	38,11,068	37,92,658	35,21,095	1,53,55,725
Drawl Amount						
Interest Debit						
Interest Credit						
Adj. Amount						
Net Charges	45,36,656	42,30,904	38,11,068	37,92,658	35,21,095	1,53,55,725
Financial charges						
State Bank of India - IX	24,87,276					
Drawl Amount						
Interest Debit						
Interest Credit						
Adj. Amount						
Net Charges	24,87,276					
Financial charges						
Repayment Amt		13,00,000				
State Bank of India - X	47,89,727	46,43,835	42,49,316	41,90,411	40,99,315	1,71,82,877
Drawl Amount						
Interest Debit						
Interest Credit						
Adj. Amount						
Net Charges	47,89,727	46,43,835	42,49,316	41,90,411	40,99,315	1,71,82,877
Financial charges						
State Bank of India - XI	48,16,780	44,94,178	42,24,658	41,90,410	40,99,316	1,70,08,562
Drawl Amount						
Interest Debit						
Interest Credit						
Adj. Amount						
Net Charges	48,16,780	44,94,178	42,24,658	41,90,410	40,99,316	1,70,08,562
Financial charges						
State Bank of India - XII	57,76,026	53,93,015	50,69,589	50,28,493	49,19,178	2,04,10,275
Drawl Amount						
Interest Debit						
Interest Credit						
Adj. Amount						
Net Charges	57,76,026	53,93,015	50,69,589	50,28,493	49,19,178	2,04,10,275
Financial charges						

Form 14 Name of the Company Name of the mine	(Amt in ₹) NTPC Ltd Dulanga CMP	Q4 2016-17	Q1 2017-18	Q2 2017-18	Q3 2017-18	Q4 2017-18	Q1 2018-19	Q2 2018-19	Q3 2018-19	Q4 2018-19	Q1 2019-20	Q2 2019-20	Q3 2019-20
Name of the Bank SBI-XIII	Description Drawl Amount Interest Debit Interest Credit Adj. Amount Net Charges Financial charges												
HDFC Bank Limited-VII	Drawl Amount										35,00,00,000		
	Interest Debit										16,10,959	73,15,478	69,80,343
	Interest Credit												
	Adj. Amount												
	Net Charges												
	Financial charges												
	Repayment amount										16,10,959	73,15,478	69,80,343
ICICI Bank-VII	Drawl Amount												
	Interest Debit												
	Interest Credit												
	Adj. Amount												
	Net Charges												
	Financial charges												
TOTAL	Drawl Amount	9,00,00,000	6,00,00,000	8,00,00,000	8,00,00,000	8,00,00,000	38,00,00,000	10,00,00,000	25,00,00,000	30,00,00,000	35,00,00,000	-	-
	Interest Debit	14,60,959	18,70,028	38,33,945	38,33,945	44,57,726	81,75,233	1,43,26,306	1,90,77,691	2,21,17,121	2,77,26,850	3,33,01,040	3,20,16,316
	Interest Credit	-	-	-	-	-	-	-	-	-	-	-	-
	Adj. Amount	-	-	-	-	-	-	-	-	-	-	-	-
	Net Charges	14,60,959	18,70,028	38,33,945	38,33,945	44,57,726	81,75,233	1,43,26,306	1,90,77,691	2,21,17,121	2,77,26,850	3,33,01,040	3,20,16,316
	Financial charges	-	-	-	-	-	-	-	-	-	-	-	-
	Cummulative drawl	9,00,00,000	15,00,00,000	23,00,00,000	23,00,00,000	23,00,00,000	61,00,00,000	71,00,00,000	96,00,00,000	1,26,00,00,000	1,61,00,00,000	1,61,00,00,000	1,61,00,00,000
66 Series Bonds 7.37%	Drawl Amount	2,54,00,00,000											
	Interest Debit	4,45,45,969	4,71,84,154	4,71,84,153	4,71,84,153	4,61,58,411	4,66,71,282	4,71,84,153	4,71,84,153	4,61,58,411	4,66,71,282	4,71,84,153	4,71,84,154
	Interest Credit												
	Adjustment Amount												
	Net Interest Charges												
	Financial Charges												
69 Series Bonds 7.32%	Drawl Amount												
	Interest Debit												
	Interest Credit												
	Adjustment Amount												
	Net Interest Charges												
	Financial Charges												
	Drawl Amount												
	Interest Debit												
	Interest Credit												
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	Drawl Amount												
	Interest Debit												
	Interest Credit												
	Adjustment Amount												
	Net Interest Charges												
	Financial Charges												
	Drawl Amount												
	Interest Debit												
	Interest Credit												
	Adjustment Amount												

Form I4 Name of the Company Name of the mine	(Amt in ₹)	Q4 2019-20	Q1 2020-21	Q2 2020-21	Q3 2020-21	Q4 2020-21	TOTAL 20-21
NTPC Ltd Dulanga CMP							
Name of the Bank SBI-XIII	Description	5,00,00,000					
	Drawl Amount	81,644	8,85,891	8,39,657	8,38,082	5,73,904	31,37,534
	Interest Debit						
	Interest Credit						
	Adj. Amount						
	Net Charges	81,644	8,85,891	8,39,657	8,38,082	5,73,904	31,37,534
	Financial charges						
HDFC Bank Limited-VII	Drawl Amount	15,00,00,000					
	Interest Debit	81,50,686					
	Interest Credit						
	Adj. Amount						
	Net Charges	81,50,686					
	Financial charges						
	Repayment amount		50,00,00,000				
ICICI Bank-VII	Drawl Amount					5,00,00,000	5,00,00,000
	Interest Debit					2,22,575	2,22,575
	Interest Credit						
	Adj. Amount						
	Net Charges					2,22,575	2,22,575
	Financial charges						
TOTAL	Drawl Amount	20,00,00,000				5,00,00,000	5,00,00,000
	Interest Debit	3,23,40,041	2,12,34,412	1,96,23,439	1,94,62,301	1,87,55,794	7,90,75,946
	Interest Credit						
	Adj. Amount						
	Net Charges	3,23,40,041	2,12,34,412	1,96,23,439	1,94,62,301	1,87,55,794	7,90,75,946
	Financial charges						
	Cummulative drawl	1,81,00,00,000	1,81,00,00,000	1,81,00,00,000	1,81,00,00,000	1,86,00,00,000	
66 Series Bonds 7.37%	Drawl Amount						
	Interest Debit	4,65,21,344	4,65,43,765	4,70,55,235			
	Interest Credit						
	Adjustment Amount						
	Net Interest Charges						
	Financial Charges						
69 Series Bonds 7.32%	Drawl Amount	90,53,973	91,00,000	92,20,822			
	Interest Debit						

Form 14  
Name of the Company  
Name of the mine

(Amt in ₹)  
NTPC Ltd  
Dulanga CMP

Name of the Bank

Description	Q4 2016-17	Q1 2017-18	Q2 2017-18	Q3 2017-18	Q4 2017-18	Q1 2018-19	Q2 2018-19	Q3 2018-19	Q4 2018-19	Q1 2019-20	Q2 2019-20	Q3 2019-20
Interest Credit												
Adjustment Amount												
Net Interest Charges												
Financial Charges												
TOTAL BONDS	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000	2,54,00,00,000
Total Interest Bonds	4,45,45,969	4,66,71,282	4,71,84,154	4,71,84,153	4,61,58,411	4,66,71,282	4,71,84,153	4,71,84,153	4,61,58,411	4,66,71,282	4,84,96,315	3,04,00,00,000
TOTAL FIN CHGS												5,66,67,511

Form 14

(Amt in ₹)  
 NTPC Ltd  
 Dulanga CMP

Name of the Company  
 Name of the mine

Description	Q4 2019-20	Q1 2020-21	Q2 2020-21	Q3 2020-21	Q4 2020-21	TOTAL 20-21
Interest Credit						
Adjustment Amount						
Net Interest Charges						
Financial Charges						
TOTAL BONDS	3,04,00,00,000	3,04,00,00,000	3,04,00,00,000	3,04,00,00,000	3,04,00,00,000	3,04,00,00,000
Total Interest Bonds	5,55,75,317	5,56,43,765				5,62,76,057
TOTAL FIN CHGS						



Calculation of Notional IDC

Name of the Petitioner: NTPC Ltd  
Name of the Integrated Mine: Dulanga

Particulars	Expenditure towards Gross Block	Add: Expenditure towards CWIP	Add: Capital Advances, if any	Less: Un-discharged liabilities (included)	Payment to contractors / suppliers towards capital assets	Cumulative payments	Debit Applied	Net Debt	Cumulative Debt	Cumulative Equity	Debt (%)	Equity (%)	Notional equity %	Notional equity	Quarterly %	Notional IDC
Q12007-08	6.75				6.75	6.75	0	0	0	6.75	-	100.00	70.00	4.73	1.75378	0.08
Q32007-08	0.07				0.07	6.82	0	0	0	6.82	-	100.00	70.00	4.78	1.75378	0.08
Q12008-09		183.54			183.54	190.37	0	0	0	190.37	-	100.00	70.00	133.26	1.75378	2.34
Q22008-09	1.21	8.30			9.51	199.88	0	0	0	199.88	-	100.00	70.00	139.91	1.75378	2.45
Q32008-09	3.42	26.73			30.15	230.03	0	0	0	230.03	-	100.00	70.00	161.02	1.75378	2.82
Q42008-09		26.39			26.39	256.42	0	0	0	256.42	-	100.00	70.00	179.49	1.75378	3.15
Q12009-10	0.31	21.08			21.39	277.81	0	0	0	277.81	-	100.00	70.00	194.47	1.75378	3.41
Q22009-10		38.07			38.07	315.88	0	0	0	315.88	-	100.00	70.00	221.12	1.75378	3.88
Q32009-10		79.36	1.46		80.82	396.70	0	0	0	396.70	-	100.00	70.00	277.69	1.75378	4.87
Q42009-10		134.45	30.20		164.65	561.35	0	0	0	561.35	-	100.00	70.00	392.95	1.75378	6.89
Q12010-11	1.01	96.75	53.22		150.98	712.34	0	0	0	712.34	-	100.00	70.00	498.64	1.75378	8.74
Q22010-11	5.60	67.89			73.49	785.83	0	0	0	785.83	-	100.00	70.00	550.08	1.75378	9.65
Q32010-11	14.23	148.11			162.33	948.16	0	0	0	948.16	-	100.00	70.00	663.71	1.75378	11.64
Q42010-11	22.92	236.33			259.25	1,207.41	0	0	0	1,207.41	-	100.00	70.00	845.19	1.75378	14.82
Q12011-12	12.69	173.91			186.61	1,394.01	0	0	0	1,394.01	-	100.00	70.00	975.81	1.75378	17.11
Q22011-12	0.73	159.06	181.25		341.04	1,735.05	0	0	0	1,735.05	-	100.00	70.00	1,214.54	1.75378	21.30
Q32011-12	1.36	171.50			172.86	1,907.91	0	0	0	1,907.91	-	100.00	70.00	1,335.54	1.75378	23.42
Q42011-12		590.74	9.95		600.69	2,508.60	0	0	0	2,508.60	-	100.00	70.00	1,756.02	1.75378	30.80
Q12012-13		155.73	61.75		217.49	2,726.09	0	0	0	2,726.09	-	100.00	70.00	1,908.26	1.75378	33.47
Q22012-13	2.44	200.14	206.93		409.51	3,135.60	0	0	0	3,135.60	-	100.00	70.00	2,194.92	1.75378	38.49
Q32012-13	0.52	216.27			216.79	3,352.39	0	0	0	3,352.39	-	100.00	70.00	2,346.67	1.75378	41.16
Q42012-13	1.60	260.17	5.00		266.77	3,619.16	0	0	0	3,619.16	-	100.00	70.00	2,533.41	1.75378	44.43
Q12013-14	4.36	200.25			204.61	3,823.77	0	0	0	3,823.77	-	100.00	70.00	2,676.64	1.75378	46.94
Q22013-14		198.96			198.96	4,022.73	0	0	0	4,022.73	-	100.00	70.00	2,815.91	1.75378	49.38
Q32013-14		377.93	1,525.08		1,903.01	5,925.74	0	0	0	5,925.74	-	100.00	70.00	4,148.02	1.75378	72.75
Q42013-14	406.86	143.05		281.83	268.09	6,193.83	0	0	0	6,193.83	-	100.00	70.00	4,335.68	1.75378	76.04
Q12014-15	15,791.77	216.51		1968.38	14,039.90	20,233.73	0	0	0	20,233.73	-	100.00	70.00	14,163.61	1.75378	248.40
Q22014-15	998.53	299.92		2246.89	-948.45	19,285.28	0	0	0	19,285.28	-	100.00	70.00	13,499.70	1.75378	236.75
Q32014-15	8.74	253.82		0.00	262.56	19,547.84	0	0	0	19,547.84	-	100.00	70.00	13,683.49	1.75378	239.98
Q42014-15	14.04	6,003.11		5726.30	2,048.85	21,596.70	0	0	0	21,596.70	-	100.00	70.00	15,117.69	1.75378	265.13
Q12015-16	911.04	322.21	1,758.00	-1212.11	5,435.04	27,031.74	0	0	0	27,031.74	-	100.00	70.00	18,922.22	1.75378	331.85
Q22015-16	1,107.39	331.35	17.36	2415.77	-959.68	26,072.06	0	0	0	26,072.06	-	100.00	70.00	18,250.44	1.75378	320.07
Q32015-16	1,380.80	333.31	269.69	3018.66	-1,034.87	25,037.20	0	0	0	25,037.20	-	100.00	70.00	17,526.00	1.75378	307.37
Q42015-16	3,810.98	348.38	2,032.51	849.92	5,341.95	30,379.15	0	0	0	30,379.15	-	100.00	70.00	21,265.40	1.75378	372.95
Q12016-17	2,451.41	185.56	470.42	-925.01	4,032.41	34,411.56	0	0	0	34,411.56	-	100.00	70.00	24,088.09	1.75378	422.45
Q22016-17	273.68	258.43	142.13	297.43	376.81	34,788.37	0	0	0	34,788.37	-	100.00	70.00	24,351.86	1.75378	427.08
Q32016-17	171.21	323.22	600.28	114.01	980.70	35,769.07	0	0	0	35,769.07	-	100.00	70.00	25,038.35	1.75378	439.12
Q42016-17	171.31	473.03	847.12	136.35	1,355.11	37,124.18	25,400.00	25,400	25,400	11,724.18	68.42	31.58	1.58	586.93	1.75378	10.29

Q1 2017-18	21.13	806.48	36.75	-125.88	990.24	38,114.42	900.00	900	26300	11,814.42	69.00	31.00	1.00	380.09	1.83012	6.96
Q2 2017-18	365.80	996.47	-92.18	196.37	1,073.72	39,188.13	600.00	600	26900	12,288.13	68.64	31.36	1.36	531.69	1.82358	9.70
Q3 2017-18	176.44	1,267.17	21.04	-1.75	1,466.40	40,654.53	800.00	800	27700	12,954.53	68.14	31.86	1.86	758.17	1.84181	13.96
Q4 2017-18	174.15	1,311.16	822.70	-1442.89	3,750.89	44,405.43	-	0	27700	16,705.43	62.38	37.62	7.62	3,383.80	1.8273	61.83
Q1 2018-19	9,775.46	1,741.59	-4,714.68	4056.75	2,745.63	47,151.05	3,800.00	3800	31500	15,651.05	66.81	33.19	3.19	1,505.74	1.74116	26.22
Q2 2018-19	132.47	2,051.08	-560.00	-1511.48	3,135.03	50,286.08	1,000.00	1000	32500	17,786.08	64.63	35.37	5.37	2,700.26	1.89263	51.11
Q3 2018-19	325.68	4,237.53	692.60	2240.48	3,015.33	53,301.41	2,500.00	2500	35000	18,301.41	65.66	34.34	4.34	2,310.99	1.8932	43.75
Q4 2018-19	11,691.56	2,352.57	-7,042.90	5039.31	1,961.91	55,263.33	3,000.00	3000	38000	17,263.33	68.76	31.24	1.24	684.33	1.79672	12.30
Q1 2019-20	116.91	2,724.66	387.85	-1196.30	4,425.72	59,689.05	3,500.00	3500	41500	18,189.05	69.53	30.47	0.47	282.34	1.79273	5.06
Q2 2019-20	437.90	1,015.70	100.93	4.86	1,549.67	61,238.72	2,000.00	2000	43500	17,738.72	71.03	28.97	-	-	1.75908	-
Q3 2019-20	905.14	1,790.27	-483.82	319.46	1,892.13	63,130.85	3,000.00	3000	46500	16,630.85	73.66	26.34	-	-	1.90718	-
Q4 2019-20	371.04	-2,158.07	32.03	-2081.96	326.96	63,457.81	2,000.00	2000	48500	14,957.81	76.43	23.57	-	-	1.81269	-
Q1 2020-21	66.53	-1,059.68	-16.48	-13.32	-996.30	62,461.51	(6,300.00)	-6300	42200	20,261.51	67.56	32.44	2.44	1,523.06	1.82176	27.75
Q2 2020-21	110.48	1,846.49	38.94	-1082.93	3,078.84	65,540.35	-	0	42200	23,340.35	64.39	35.61	5.61	3,678.25	1.79857	66.16
COD - 1.10.2020	52,421.95	-30,361.00	-	16,962.82	5,098.14	70,638.49	-	0	42200	28,438.49	59.74	40.26	10.26	7,246.94	-	-
<b>Total</b>	<b>1,04,669.64</b>	<b>1,825.96</b>	<b>424.83</b>	<b>36,281.94</b>	<b>70,638.49</b>											<b>4,516.35</b>

 (Petitioner)

<u>Details of Applicable Statutory Charges</u>							PART- IV FORM- 16
Name of the Petitioner: NTPC Ltd							
Name of the Integrated Mine: Dulanga							
Particulars	Applicable Rate	Quantity	Amount (2019-20)	Amount (2020-21)	Amount (2021-22)	Amount (2022-23)	Amount (2023-24)
Royalty	% of Input Price (CIL Basic Rate)	14%		115.78	115.78	115.78	115.78
GST under Reverse Charge Mechanism	% of Royalty	18%		20.84	20.84	20.84	20.84
District Mineral Foundation (DMF)	% of Royalty	10%		11.58	11.58	11.58	11.58
GST under Reverse Charge Mechanism	% of DMF	18%		2.08	2.08	2.08	2.08
National Mineral Exploration Trust (NMET)	% of Royalty	2%		2.32	2.32	2.32	2.32
GST under Reverse Charge Mechanism	% NMET	18%		0.42	0.42	0.42	0.42
Users Fee	Rs per tonne	1.00		1.00	1.00	1.00	1.00
GST under Reverse Charge Mechanism	% Users Fee	18%		0.18	0.18	0.18	0.18
GST on reserve price under Reverse Charge Mechanism	% Reserve Price	18%		18.00	18.00	18.00	18.00
GST on MDO price	% of Mining Charges	18%		69.78	69.78	69.78	69.78
Total				241.98	241.98	241.98	241.98
Not Applicable							
(Petitioner)							

Note: Royalty is to be paid at CIL price of equivalent grade.

<b>Details of Mine Closure Expenses</b>		PART-IV FORM-17				
Name of the Petitioner: NTPC Ltd						
Name of the Integrated Mine: Dulanga						
			Amount in Rs Lakhs			
1.	Amount Deposited in Escrow Account prior to date of Commercial Operation (Rs)	PV	590			
2.	Life of Mine over which amount is to be recovered (Yrs)	n	24			
3.	Borrowing Rate per year (%)	r	7.096			
4.	Amount recoverable per Year (Rs)	$P = PV \times r / [1 - (1+r)^{-n}]$	51.88			
<b>5. Deposit after the date of Commercial operation - when mine closure is in scope of Generating Company itself</b>						
Production Year No. (1)	Amount of Deposit in Escrow account (2)	Date of Deposit in Escrow account (3)	Interest Earned/Accrued in Escrow account (4)	Amount received from Escrow account towards Mine closure (5)	Admissible Mine closure expense (6)	
3	158.50	31.12.2020			158.50	
4	166.50				166.50	
5	175.00				175.00	
6	183.50				183.50	
<b>6. Deposit after the date of Commercial operation - when mine closure is in scope of Mine Developer &amp; Operator (MDO)</b>						
Production Year No. (1)	Amount of Deposit in Escrow account (2)	Date of Deposit in Escrow account (3)	Borrowing cost at weighted average rate of interest of actual loan (4)	Interest Earned/Accrued in Escrow account (5)	Amount received from Escrow account towards Mine closure (6)	Adjustment to be made in Input price as a part of Mine closure expense (7)
3	158.50	31.12.2020	11.25	6.34		4.91
4	166.43		23.01	13.00		10.01
5	174.75		35.36	19.99		15.37
6	183.48		48.34	27.33		21.01
Note: Rate of interest in escrow account has been provisionally taken as 4% and the actual interest shall be submitted at the time of truing up.						
						Petitioner



<u>Abstract of Capital Cost Estimates and Cost on the date of Commercial Operation of the Integrated Mine</u>			PART- IV FORM- A
Name of the Petitioner: NTPC Ltd			
Name of the Integrated Mine: Dulanga			
Board of Director/ Agency approving the Capital cost estimates:	As per original Investment Approval	Board of Director As per Revised Investment Approval	Actual
	Completed Cost	Present Day Cost	
Price level of approved estimates	As on End of <u>IIIrd_Qtr.</u> of the year <u>2016</u>	Present Day Cost	01.10.2020
Foreign Exchange rate considered for the Capital cost estimates			
<b>Capital Cost excluding IDC, IEDC &amp; FC (Rs. Lakh)</b>			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs. Lakh)	1,07,781	1,33,826	95,437
<b>Capital cost excluding IDC, IEDC, FC, FERV &amp; Hedging Cost (Rs. Lakh)</b>			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs. Lakh)	6,082	6,082	9,232
<b>Total IDC, WC, FC, FERV &amp; Hedging Cost (Rs. Lakh)</b>			
Rate of taxes & duties considered			
<b>Capital cost Including IDC, IEDC, FC, FERV &amp; Hedging Cost</b>			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs. Lakh)	1,13,863	1,39,908	1,04,670
<b>Capital cost Including IDC, IEDC&amp; FC (Rs. Lakh)</b>			
<b>1,13,863</b>			
<b>1,39,908</b>			
<b>1,04,670</b>			
<b>Schedule</b>			
Scheduled date of commercial operation as per Investment Approval/Mine Plan	Not Defined		
Scheduled date of Peak rated capacity as per Investment Approval/Mine Plan	Not Defined		
Actual COD of last Unit/Block	01.10.2020		
 (Petitioner)			

<b>Break-up of Capital Cost for New Integrated Mine</b>									
Part - IV Form-B									
Name of the Petitioner: NTPC Ltd									
Name of the Integrated Mine: Dulanga									
S. No.	Break Down	As per Original Investment Approval	As per revised Investment Approval	Actual Capital Expenditure as on date of commercial operation	Liabilities/Provisions	Variation (3A - 4 - 5)	Specific Reasons for Variation	Estimated Capital expenditure up to Peak Rated Capacity	(Amount in Rs. Lakh)
1	2								
1	Cost of Land & Site Development								
1.1	Land								
	Freehold Land								
	Lease Hold Land								
	CBA Land	39,680.00	56,503.00	33,777.83		22,725.17		56503.00	
1.2	Rehabilitation & Resettlement (R&R)	37,434.00	46,656.00	4,635.91	36,087.86	5,932.23		42,788.00	
1.3	Preliminary Investigation & Site Development (Prospecting and Boring)								
2	Total Land & Site Development	77,114.00	1,03,159.00	38,413.74	36,087.86	28,657.40		99,291.00	
2.1	Plant & Equipment								
2.1	Coal Handling Plant								
2.2	Material Handling system								
2.3	Fixed Infrastructure Mechanical								

Break-up of Capital Cost for New Integrated Mine											
Name of the Petitioner: NTPC Ltd											
Name of the Integrated Mine: Dulanga											
S. No.	Break Down	As per Original Investment Approval		As per revised Investment Approval		Actual Capital Expenditure as on date of commercial operation		Liabilities/Provisions	Variation (3A - 4 - 5)	Specific Reasons for Variation	Estimated Capital expenditure up to Peak Rated Capacity
		3	3A	4	5	6	7				
1											
2.4	Other Plant and Machinery	61.00	61.00	161.96	1.88	-102.84				It is submitted that the capitalization consists of expenditure of around Rs 42.40 Lakhs towards DG sets. These DG sets were envisaged as part of sl no 5.1 i.e. 'Township & Colony/Aux Building' in the Investment Approval however capitalized in 'Other Plant & Machinery' as per accounting practice. Similarly, the capitalization in 'Other Plant & Machinery' includes expenditure of Rs 85.95 Lakhs towards weighbridges which was envisaged as part of sl no 6.2 i.e. 'Mine Development Expenses' in the Investment Approval.	163.84
	<b>Total BOP Mechanical</b>	61.00	61.00	161.96	1.88	-102.84					163.84
3	<b>Plant &amp; Machinery</b>										
3.1	Switchyard Package										
3.2	Emergency D G Set										
3.3	Fixed Infrastructure Electrical										
	<b>Total BOP Electrical</b>										
4	Spares										
4.1	Initial Spares										
	<b>Total Plant and Machinery</b>	61.00	61.00	161.96	1.88	-102.84					163.84
5	Civil Works										
5.1	Township & Colony/Aux Building	4,545.00	4,545.00	235.97	18.71	4,290.32					4,545.00

S. No.		Break Down	As per Original Investment Approval	As per revised Investment Approval	Actual Capital Expenditure as on date of commercial operation	Liabilities/Provisions	Variation (3A - 4 - 5)	Specific Reasons for Variation	Estimated Capital expenditure up to Peak Rated Capacity
1	2	Temporary Construction & Enabling Works	-	-	-	-	-	-	-
5.2		Road and Drainage	-	-	-	-	-	-	-
5.3		Fixed Infrastructure Civil	-	-	-	-	-	-	-
5.4		<b>Total Civil Works</b>	4,545.00	4,545.00	2,35.97	18.71	4,290.32	4,545.00	
6		<b>Overheads</b>							
6.1		Establishment (Other Expenditure directly attributable to Construction)	25,702.00	25,702.00	11,441.12	-	5,549.97	25,702.00	
6.2		Mine Development expenditure excluding IDC			8,698.06	12.85			
6.3		MBOA	359.00	359.00	361.93	3.29	-6.22		359.00
		<b>Total Overheads</b>	26,061.00	26,061.00	20,501.11	16.14	5,543.75		25,702.00
7		Total Capital cost excluding IDC & FC	1,07,781.00	1,33,826.00	59,312.78	36,124.59	38,388.64		
8		IDC, FC, FERV & Hedging cost							

Break-up of Capital Cost for New Integrated Mine

Part - IV  
Form-B

Name of the Petitioner: NTPC Ltd  
Name of the Integrated Mine: Dulanga

(Amount in Rs. Lakh)

S. No.		Break Down	As per Original Investment Approval		As per revised Investment Approval		Actual Capital Expenditure as on date of commercial operation Actual Amount (Cash Basis)	Liabilities/ Provisions	Variation (3A - 4 - 5)	Specific Reasons for Variation	Estimated Capital expenditure up to Peak Rated Capacity
			3	3A	4	5					
1											
8.1		Interest During Construction (IDC)	5,125.00	5,125.00	9,232.28			-4,107.28	It is submitted that during the preparation of Financial Appraisal Report, construction period of 2 years upto first touching of coal was envisaged and IDC upto first touching of coal was included in Investment Approval. Relevant extracts of FAR attached as Annexure-J. However, first coal touched in Sept 2018 and COD was declared on 01.10.2020. Interest on loans upto Commercial Operation Date of the project was capitalized in line with the accounting practices. Regulation 36D also provides that IDC upto date of commercial operation shall be considered for arriving at the capital cost of the project. Hon'ble Commission may be pleased to allow the IDC as claimed.	9,232.28	
8.2		Financing charges (FC)	186.00	186.00	-			186.00			
8.3		Foreign Exchange Rate Variation (FERV)						-			
8.4		Hedging cost						-			
8.5		WCM	771.00	771.00				771.00		0	

**Break-up of Capital Cost for New Integrated Mine**

Part - IV  
Form-B

Name of the Petitioner: NTPC Ltd  
Name of the Integrated Mine: Dulanga

(Amount in Rs. Lakh)

<b>Break-up of Capital Cost for New Integrated Mine</b>									
Part - IV Form-B									
(Amount in Rs. Lakh)									
S. No.	Break Down	As per Original Investment Approval	As per revised Investment Approval	Actual Capital Expenditure as on date of commercial operation	Liabilities/Provisions	Variation (3A - 4 - 5)	Specific Reasons for Variation	Estimated Capital expenditure up to Peak Rated Capacity	
		3	3A	4	5	6			
1	2	3	3A	4	5	6	7	8	
	<b>Total of IDC, FC, FERV &amp; Hedging cost</b>	6,082.00	6,082.00	9,232.28	-	-3,150.28			
9	Capital cost including IDC, FC, FERV & Hedging cost	1,13,863.00	1,39,908.00	68,545.06	36,124.59	35,238.36			
10	Notional IDC			4,516.35					
11	<b>Total</b>	<b>1,13,863.00</b>	<b>1,39,908.00</b>	<b>73,061.41</b>	<b>36,124.59</b>				
									 (Petitioner)

PART-IV FORM-C									
Break-up of Construction/Supply/Service packages									
Name of the Petitioner: NTPC Ltd									
Name of the Integrated Mine: Dulanga									
S. No.	Name/No. of Construction / Supply / Service Package	Land Acquisition		Mine development expenses	MBOA	Other Misc Works	Total Cost of all packages	(Amount in Rs. Lakh)	
		Lease Hold Land	R&R Expenses					Mine development expenses	MBOA
1	Scope of works (in line with head of cost break-ups as applicable)								
2	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work			DCB	DCB	DCB			
3	No. of bids received								
4	Date of Award								
5	Date of Start of work								
6	Date of Completion of Work/Expected date of completion of work							26 No of contracts	
7	Value of Award in (Rs. Lakh)				630.22	418.52			
8	Firm or With Escalation in prices				Firm	Firm			
9	Actual capital expenditure till the completion or up to date of commercial operation whichever is earlier(Rs.Lakh)	33777.83	40723.77	8710.91	365.22	418.52	83996.24		
10	Taxes & Duties and IEDC (Rs. Lakh)			11441.12	0.00		11441.12		
11	IDC, FC, FERV & Hedging cost (Rs. Lakh)			9232.28	0.00		9232.28		
12	Sub -total (9+10+11) (Rs. Lakh)	33777.83	40723.77	29384.31	365.22	418.52	104669.64		



(Petitioner)

<b>Reconciliation of capitalization claimed vis-à-vis books of accounts</b>						
<b>Name of the Petitioner: NTPC Ltd</b> <b>Name of the Integrated Mine: Dulanga</b>						
<b>PART- IV</b>						
<b>FORM-E</b>						
(Amount in Rs. Lakh)						
S. No.	Particulars	As on CoD i.e. 01.10.2020	2020-21	2021-22	2022-23	2023-24
			4	5	6	7
1	2	3				
1	Closing Gross Block as per IND AS	1,13,918.97				
2	Ind-AS Adjustment	9,249.32				
3	Closing Gross Block as per I GAAP	1,04,669.65				
4	Opening Gross Block as per IND AS					
5	Add/Less: Adjustments					
6	Opening Gross Block as per I GAAP					
7	<b>Total Additions as per books (G = 3 - 5)</b>	1,04,669.65				
8	Less: Additions pertaining to other Mines (give Mine wise breakup)	-				
9	<b>Net Additions pertaining to instant Mine</b>	1,04,669.65				
10	Less: Exclusions (items not allowable / not claimed)	-				
11	<b>Net Additional Capital Expenditure Claimed (on accrual basis) (I GAAP)</b>	1,04,669.65				
12	Less: Un-discharged Liabilities	36,124.59				
13	Add: Discharges of un-discharged liabilities,	-				
14	<b>Net Additional Capital Expenditure Claimed (on cash basis)</b>	68,545.06				

Shall be provided at the time of truing up

  
(Petitioner)

Statement of Capital cost		PART- IV FORM- G		
Name of the Petitioner: NTPC Ltd				
Name of the Integrated Mine: Dulanga				
(Amount in Rs. Lakh)				
S. No.	Particulars	As on 01.10.2020		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books (Indian GAAP)	104669.65	36124.59	68545.06
	b) Amount of IDC in A(a) above	9232.28		9232.28
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above	11441.12		11441.12
B	a) Addition in Gross Block Amount during the period (Direct purchases) (Indian GAAP)			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP) (Indian GAAP)			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Deletion in Gross Block Amount during the period (Indian GAAP)			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing Gross Block Amount as per books (Indian GAAP)			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			
Shall be provided at the time of truing up				

  
(Petitioner)

Statement of Capital Works in Progress		PART- IV FORM- H		
Name of the Petitioner: NTPC Ltd				
Name of the Integrated Mine: Dulanga				
(Amount in Rs. Lakh)				
S. No.	Particulars	As on 01.10.2020		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books (Indian GAAP)	1825.96	157.35	1668.61
	b) Amount of IDC in A(a) above	128.12		128.12
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above	0		0
B	a) Addition in CWIP during the period(Indian GAAP)			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Transferred to Gross Block Amount during the period (Indian GAAP)			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Closing CWIP as per books (Indian GAAP)			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			
Shall be provided at the time of truing up				
 (Petitioner)				

		<u>Calculation of Interest on Normative Loan</u>					<b>PART-IV FORM-I</b>	
Name of the Petitioner: NTPC Ltd						(Amount in Rs Lakh)		
Name of the Integrated Mine: Dulanga								
S. No.	Particulars	Existing 2018-19	2019-20	2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24	
1	2	3	4	5	6	7	8	
1	Gross Normative loan – Opening			51,142.98	57,225.97	63,089.46	66,546.24	
2	Cumulative repayment of Normative loan up to previous year			-	1,706.03	5,504.63	9,597.50	
3	<b>Net Normative loan – Opening</b>			51,142.98	55,519.94	57,584.82	56,948.74	
4	Add: Increase due to addition during the year			1,417.50	892.50	525.00	1,134.00	
5	Less: Decrease due to de-capitalisation during the year		Not Applicable	-	-	-	-	
6	Add: Increase due to discharges during the year / period			4,665.49	4,970.99	2,931.78	1,860.25	
6A	Less: repayment during the period			1,706.03	3,798.61	4,092.87	4,296.54	
7	<b>Net Normative loan - Closing</b>			55,519.94	57,584.82	56,948.74	55,646.45	
8	<b>Average Normative loan</b>			53,331.46	56,552.38	57,266.78	56,297.59	
9	Weighted average rate of interest			7.10%	7.06%	7.07%	7.07%	
10	Interest on Loan			3,784.64	3,995.39	4,048.62	3,981.51	


  
(Petitioner)

		<u>Calculation of Interest on Working Capital</u>						PART-IV FORM-J
		(Amount in Rs Lakh)						
S. No.	Particulars	Existing 2018-19	2019-20	2020-21 (01.10.2020 to 31.03.2021)	2021-22	2022-23	2023-24	
1	2	3	4	5	6	7	8	
1	Input Cost of Coal Stock for 7 days of Production corresponding to ATQ for the relevant year			819.61	986.93	1383.94	1394.95	
2	Consumption of stores and spare including explosives, lubricants and fuels (@ 15%) of O&M expenses excluding mining charge of MDO or annual charge of any agency other than MDO		Not Applicable	797.68	851.64	894.40	921.89	
3	One Month O & M Expenses excluding mining charge of MDO or annual charge of any agency other than MDO			443.16	473.14	496.89	512.16	
4	Total Working Capital			2060.45	2311.71	2775.24	2829.01	
5	Rate of Interest			11.25	10.50	10.50	10.50	
6	Interest on Working Capital			231.80	242.73	291.40	297.05	
								(Petitioner)

<u>Incidental Expenditure up to date of commencement of Production and up to Actual date of commercial operation</u>			PART- IV FORM- K
Name of the Petitioner: NTPC Ltd			
Name of the Integrated Mine: Dulanga			
(Amount in Rs. Lakh)			
S. No.	Parameters	As on date of commencement of Production	As on actual/anticipated date of commercial operation
A	Head of Expenses:		
1	Employees' Benefits Expenses	6993.56	12266.50
2	Other Finance Charges	12.64	116.87
3	Water Charges	2.00	26.38
4	Communication Expenses	139.66	251.71
5	Power Charges	33.42	68.98
6	Depreciation	866.56	5491.70
7	EDP hire and other charges	10.34	41.47
8	Entertainment expenses	44.98	110.43
9	Expenses for guest house	114.16	204.39
10	Hiring of vehicles	235.49	488.19
11	Inland Travel	314.08	579.07
12	Insurance	0.70	6.41
13	Legal expenses	29.22	30.32
14	Miscellaneous expenses	465.88	530.16
15	Printing and stationery	21.62	38.54
16	Professional charges and consultancy fees	207.95	375.24
17	Rates and taxes	3.53	35.07
18	Rent	127.51	203.78
19	Security expenses	189.45	600.93
20	Tender expenses	38.49	38.49
21	Transport Vehicle running expenses	2.94	22.87
22	Repair & Mtce	178.97	797.49
23	Advertisement and publicity	24.25	52.49
24	Other Pre-Operating Expenses -Cost of captive coal produced	0.00	16557.40
B	Total Expenses	10057.42	38934.88
1	Less: Income from sale of tenders	-0.54	-0.70
2	Less: Income from guest house	-0.43	-0.43
3	Less: Income recovered from Contractors	-	-9.81
4	Less: Other Misc Income	-12.02	-25.30
5	Less: Pre Commsioning Income on Sale of Coal	-	-27,457.52
Net Expenses		10,044.43	11,441.12
 (Petitioner)			

Actual cash expenditure							PART-IV FORM- M
Name of the Petitioner: NTPC Ltd							
Name of the Integrated Mine: Dulanga							
(Amount in Rs. Lakh)							
Particulars	Expenditure towards Gross Block	Add: Expenditure towards CWIP	Add: Capital Advances, if any	Less: Un-discharged liabilities (included)	Add/Less: Others	Payment to contractors / suppliers towards capital assets	Cumulative payments
Q12007-08	6.75		-			6.75	6.75
Q32007-08	0.07		-			0.07	6.82
Q12008-09	-	183.54	-			183.54	190.37
Q22008-09	1.21	8.30	-			9.51	199.88
Q32008-09	3.42	26.73	-			30.15	230.03
Q42008-09	-	26.39	-			26.39	256.42
Q12009-10	0.31	21.08	-			21.39	277.81
Q22009-10	-	38.07	-			38.07	315.88
Q32009-10	-	79.36	1.46			80.82	396.70
Q42009-10	-	134.45	30.20			164.65	561.35
Q12010-11	1.01	96.75	53.22			150.98	712.34
Q22010-11	5.60	67.89	-			73.49	785.83
Q32010-11	14.23	148.11	-			162.33	948.16
Q42010-11	22.92	236.33	-			259.25	1,207.41
Q12011-12	12.69	173.91	-			186.61	1,394.01
Q22011-12	0.73	159.06	181.25			341.04	1,735.05
Q32011-12	1.36	171.50	-			172.86	1,907.91
Q42011-12	-	590.74	9.95			600.69	2,508.60
Q12012-13	-	155.73	61.75			217.49	2,726.09
Q22012-13	2.44	200.14	206.93			409.51	3,135.60
Q32012-13	0.52	216.27	-			216.79	3,352.39
Q42012-13	1.60	260.17	5.00			266.77	3,619.16
Q12013-14	4.36	200.25	-			204.61	3,823.77
Q22013-14	-	198.96	-			198.96	4,022.73
Q32013-14	-	377.93	1,525.08			1,903.01	5,925.74
Q42013-14	406.86	143.05	-	281.83		268.09	6,193.83
Q12014-15	15,791.77	216.51	-	1968.38		14,039.90	20,233.73
Q22014-15	998.53	299.92	-	2246.89		-948.45	19,285.28
Q32014-15	8.74	253.82	-	0.00		262.56	19,547.84
Q42014-15	14.04	6,003.11	1,758.00	5726.30		2,048.85	21,596.70
Q12015-16	911.04	322.21	2,989.69	-1212.11		5,435.04	27,031.74
Q22015-16	1,107.39	331.35	17.36	2415.77		-959.68	26,072.06
Q32015-16	1,380.80	333.31	269.69	3018.66		-1,034.87	25,037.20
Q42015-16	3,810.98	348.38	2,032.51	849.92		5,341.95	30,379.15
Q12016-17	2,451.41	185.56	470.42	-925.01		4,032.41	34,411.56
Q22016-17	273.68	258.43	142.13	297.43		376.81	34,788.37
Q32016-17	171.21	323.22	600.28	114.01		980.70	35,769.07
Q42016-17	171.31	473.03	847.12	136.35		1,355.11	37,124.18
Q1 2017-18	21.13	806.48	36.75	-125.88	-	990.24	38,114.42
Q2 2017-18	365.80	996.47	-92.18	196.37	-	1,073.72	39,188.13
Q3 2017-18	176.44	1,267.17	21.04	-1.75	-	1,466.40	40,654.53
Q4 2017-18	174.15	1,311.16	822.70	-1442.89	-	3,750.89	44,405.43
Q1 2018-19	9,775.46	1,741.59	-4,714.68	4056.75	-	2,745.63	47,151.05
Q2 2018-19	132.47	2,051.08	-560.00	-1511.48	-	3,135.03	50,286.08
Q3 2018-19	325.68	4,237.53	692.60	2240.48	-	3,015.33	53,301.41
Q4 2018-19	11,691.56	2,352.57	-7,042.90	5039.31	-	1,961.91	55,263.33
Q1 2019-20	116.91	2,724.66	387.85	-1196.30	-	4,425.72	59,689.05
Q2 2019-20	437.90	1,015.70	100.93	4.86	-	1,549.67	61,238.72
Q3 2019-20	905.14	1,790.27	-483.82	319.46	-	1,892.13	63,130.85
Q4 2019-20	371.04	-2,158.07	32.03	-2081.96	-	326.96	63,457.81
Q1 2020-21	66.53	-1,059.68	-16.48	-13.32	-	-996.30	62,461.51
Q2 2020-21	110.48	1,846.49	38.94	-1082.93	-	3,078.84	65,540.35
COD - 1.10.2020	51,861.06	-30,361.00	-	16962.82		4,537.25	70,077.60
<b>Total</b>	<b>1,04,108.75</b>	<b>1,825.96</b>	<b>424.83</b>	<b>36,281.95</b>	<b>-</b>	<b>70,077.60</b>	



(Petitioner)

Statement of Liability Flow							PART-IV FORM-N
Name of the Petitioner: NTPC Ltd							Amount in Rs Lakhs
Name of the Integrated Mine: Dulanga							
Party	Asset / Work	Year of actual capitalization	Original Liability in case date of commercial operation is prior to 31.3.2019	Liability as on Cod, 01.10.2020	Discharges (Year wise)	Reversal (Year wise)	Net Liability at end of each year
AKASH ENTERPRISE	Procurement of 04 no residential hall type Bunk house of Standard size	01.10.2020		2.42			
S N CONSTRUCTION	Construction of additional dining hall, water harvesting structure	01.10.2020		9.45			
DHARMEDHAR SAMAL	Construction of CISF Barrack	01.10.2020		6.39			
SWASTIK ENTERPRISES	Purchase of 3 nos. of Surge Protection Devices (SPD).	01.10.2020		0.21			
GANGPUR KRUSHAK SUPPLY AGENCY	Supply & Installation of 1 No of 250 KVA DG Set for Site Office	01.10.2020		1.67			
LEOTRONIC SCALES PVT LTD	Procurement and Installation of 2 nos of 100 MT Weigh Bridge along with	01.10.2020		10.96			
PARIDA BROTHERS	Procurement of Godrej make Furniture for New Transit Camp	01.10.2020		0.01			
PARIDA BROTHERS	Procurement of Godrej make Furniture for Transit Camp & Porta	01.10.2020		0.33			
VARELI TECNAC PVT LTD	Procurement of plotter A0 for Mining Department	01.10.2020		0.54			
PATRA ELECTRONICS	Procurement and installation of 30 nos of 1.5 T split AC	01.10.2020		0.11			
INTERACTIVE DATA SYSTEMS LIMITED	Supply and Installation of 2 set of Biometric Punching Machine	01.10.2020		0.06			
CORPORATE INFOTECH PVT LTD	Procurement of All in One Desktop PC	01.10.2020		1.80			
BAJAJ ELECTRICALS LTD	Procurement of 1no. 20m height high mast LED street lighting system	01.10.2020		0.11			
ASTRA COMMUNICATION	Procurement of Two way radio communication system	01.10.2020		0.77			
SARTECH INTL	Supply and Installation of Thermo Gravimetric Analyser	01.10.2020		1.80			
EASTMAN CRUSHER CO PVT LTD	Supply cum Installation of General Coal Laboratory Testing Equipments	01.10.2020		0.08			
	CBA Land	01.10.2020		36087.86			
	<b>Total</b>			<b>36124.59</b>			

Shall be submitted at the time of truing up



(Petitioner)



# भारत का राजपत्र

## The Gazette of India

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असाधारण  
**EXTRAORDINARY**

भाग III—खण्ड 4  
**PART III—Section 4**

प्राधिकार से प्रकाशित  
**PUBLISHED BY AUTHORITY**

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नई दिल्ली, सोमवार, सितम्बर 13, 2021/भाद्र 22, 1943  
NEW DELHI, MONDAY, SEPTEMBER 13, 2021/BHADRA 22, 1943

केन्द्रीय विद्युत विनियामक आयोग  
अधिसूचना  
नई दिल्ली, 19 फरवरी, 2021

सं.एल-1/236/2018/केविआ.—केन्द्रीय विद्युत विनियामक आयोग, विद्युत अधिनियम, 2003 (2003 का 36) की धारा 178 की उपधारा (2) के खंड (ध) के अधीन प्रदत्त शक्तियों तथा इस निमित्त सामर्थ्यकारी सभी अन्य शक्तियों का प्रयोग करते हुए तथा पूर्व प्रकाशन के पश्चात्, केन्द्रीय विद्युत विनियामक आयोग (टैरिफ के निबंधन तथा शर्तों) विनियम, 2019 (जिसे इसके पश्चात् 'मूल विनियम' कहा गया है) का संशोधन करने के लिए निम्नलिखित विनियम बनाता है, अर्थात्:-

- संक्षिप्त नाम तथा आरंभ: (1) इन विनियमों का संक्षिप्त नाम केन्द्रीय विद्युत विनियामक आयोग (टैरिफ के निबंधन तथा शर्तों) (द्वितीय संशोधन) विनियम, 2021 है।  
(2) ये विनियम राजपत्र में अधिसूचना की तारीख से प्रवृत्त होंगे।  
(3) ये विनियम मूल विनियम के विनियम 6 और विनियम 59 के संशोधन के सिवाय, जो राजपत्र में इन विनियमों की अधिसूचना की तारीख से प्रवृत्त होंगे, दिनांक 1.4.2019 से 31.3.2024 तक की पांच वर्षों की टैरिफ अवधि के लिए लागू होंगे।
- मूल विनियम के विनियम 2 के खंड (2) का संशोधन:  
2.1 मूल विनियम के विनियम 2 के खंड (1) के बाद, नया खंड (1क) निम्नानुसार जोड़ा जाएगा:  
"(1क) ये विनियम उन सभी मामलों में लागू होंगे जहाँ उत्पादन कंपनी के एक या अधिक विनिर्दिष्ट अंतिम उपयोग उत्पादन केन्द्रों, जिनका टैरिफ अधिनियम की धारा 79 के साथ पठित धारा 62 के अधीन आयोग द्वारा अवधारित किया जाना है,

के लिए उत्पादन कंपनी में उसे आबंटित एकीकृत खदान (खदानों) से कोयले या लिग्नाइट की आपूर्ति के लिए व्यवस्था है।"

### 3. मूल विनियम के विनियम 3 का संशोधन:

मूल विनियम के विनियम 3 के खंड (4) के बाद, एक नया खंड, अर्थात्, खंड (4क) निम्नानुसार जोड़ा जाएगा:

"(4क) एकीकृत खदान (खदानों) के संबंध में, 'वार्षिक लक्ष्य मात्रा' या 'एटीक्यू' से खनन योजना में यथा विनिर्दिष्ट ऐसी एकीकृत खदान (खदानों) से वर्ष के दौरान निकाले जाने वाले कोयले या लिग्नाइट की मात्रा अभिप्रेत है:

परंतु यह कि यदि कोयला या लिग्नाइट की एकीकृत खदान, खनन योजना के अनुसार कोयला या लिग्नाइट की आपूर्ति के लिए तैयार हैं परंतु ऐसे कारणों से रोकी गई है जो उत्पादनकारी कंपनी से संबंधित नहीं हैं, आयोग खनन योजना में यथा विनिर्दिष्ट वर्ष के दौरान कोयला या लिग्नाइट की निकाले जाने वाली मात्रा के 15 प्रतिशत तक के अधिकतम तक वार्षिक लक्ष्य मात्रा में छूट दे सकता है।"

3.2 मूल विनियम के विनियम 3 के खंड (5) में, प्रथम परंतुक में "एकीकृत कोयला खदान" शब्दों के स्थान पर, "एकीकृत खदान (खदानों)" शब्द रखे जाएंगे;

3.3 मूल विनियम के विनियम 3 के खंड (9) के स्थान पर, निम्नलिखित रखा जाएगा:

"(9) 'पूँजी लागत' से, यथास्थिति, उत्पादन स्टेशन या पारेषण प्रणाली के संबंध में इस विनियम के विनियम 19 और एकीकृत खदान (खदानों) के संबंध में इस विनियम के विनियम 36घ में यथा अवधारित पूँजी लागत अभिप्रेत है।"

3.4 मूल विनियम के विनियम 3 के खंड (14) में, "पश्चात्" शब्द के बाद ", सिवाय एकीकृत खदान (खदानों) के," शब्द जोड़े जाएंगे।

3.5 मूल विनियम के विनियम 3 के खंड (15) के स्थान पर, निम्नलिखित रखा जाएगा:

"(15) किसी थर्मल उत्पादन स्टेशन या हाइड्रो उत्पादन स्टेशन या पारेषण प्रणाली या संचार प्रणाली के संबंध में, 'वाणिज्यिक प्रचालन की तारीख' या 'सीओडी' का वही अर्थ होगा जैसा कि समय-समय पर यथा संशोधित ग्रिड कोड में परिभाषित है:

परंतु यह कि एकीकृत खदान (खदानों) के वाणिज्यिक प्रचालन की तारीख का वही अर्थ होगा जो कि इस विनियम के विनियम 5 में यथा विनिर्दिष्ट है;"

3.6 मूल विनियम के विनियम 3 के खंड (15क) के बाद, एक नया खंड, अर्थात् खंड (15ख) निम्नानुसार जोड़ा जाएगा:

"(15ख) एकीकृत खदान (खदानों) के संबंध में, 'उत्पादन के आरंभ की तारीख' से उत्पादन कंपनी द्वारा यथा घोषित यथास्थिति, कोयला या लिग्नाइट, को स्पर्श करने की तारीख अभिप्रेत है;"

3.7 मूल विनियम के विनियम 3 के खंड (20क) के बाद, एक नया खंड, अर्थात् खंड (20ख) निम्नानुसार जोड़ा जाएगा:

"(20ख) 'एस्करो खाता' से कोयला नियंत्रक, कोयला मंत्रालय, भारत सरकार द्वारा जारी दिशानिर्देशों के अनुसार एकीकृत खदान (खदानों) के खदान समापन व्यय के जमा और बनाए रखा गया खाता अभिप्रेत है;"

3.8 मूल विनियम के विनियम 3 के खंड (21) के स्थान पर, निम्नलिखित रखा जाएगा:

"(21) 'विद्यमान परियोजना' से वह उत्पादन केन्द्र और पारेषण प्रणाली अभिप्रेत है जिसे वाणिज्यिक प्रचालन के अधीन दिनांक 1.4.2019 के पहले की तारीख को घोषित किया गया है;"

3.9 मूल विनियम के विनियम 3 के खंड (36) में, प्रथम लाइन में "लिग्नाइट की कीमत" शब्द के स्थान पर "लिग्नाइट की कीमत (विद्यमान लिग्नाइट खदानों के संबंध में लिग्नाइट की अंतरण कीमत सहित)" शब्द रखे जाएंगे।

3.10 मूल विनियम के विनियम 3 के खंड (40) के प्रथम परंतुक के बाद, दो नए परंतुक निम्नानुसार जोड़े जाएंगे:

"परंतु यह और कि एकीकृत खदान (खदानों) के संबंध में, वित्त पोषण और कार्यान्वयन के लिए समय-सीमा को निवेश अनुमोदन में पृथक और स्पष्ट रूप से उपदर्शित किया जाएगा:

परंतु यह और कि जहां निवेश अनुमोदन में उत्पादन केन्द्र और एकीकृत खदान (खदानों) दोनों सम्मिलित हैं, वहां एकीकृत खदान (खदानों) के लिए वित्त पोषण और कार्यान्वयन के लिए समय सीमा को तय किया जाएगा और उन्हें निवेश अनुमोदन में पृथक रूप से और स्पष्ट रूप से उपदर्शित किया जाएगा।"

3.11 मूल विनियम के विनियम 3 के खंड (41) के बाद, नया खंड, अर्थात् खंड (41क) निम्नानुसार जोड़ा जाएगा:

"(41क) एकीकृत खदान (खदानों) के संबंध में, 'लदाई बिंदु' से रेल के साइडिंग या साइलो या कोयला हैंडलिंग संयंत्र या वाहक पट्टी जैसी अन्य व्यवस्था की अवस्थिति अभिप्रेत है, जो भी यथास्थिति, कोयला या लिग्नाइट के प्रेषण के लिए खदान के निकटतम हो;"

3.12 मूल विनियम के विनियम 3 के खंड (43) के बाद, दो नए खंड, अर्थात् खंड (43क) और खंड (43ख) निम्नानुसार जोड़े जाएंगे:

"(43क) 'खदान की अवसंरचना' में एकीकृत खदान (खदानों) की आस्तियाँ शामिल होंगी जैसे कि खनन प्रचालनों के लिए प्रयुक्त मूर्त परिसंपत्तियाँ, सिविल कार्य, कार्यशालाएं, अचल विनिंग उपकरण, नींव, बांध, फुटपाथ, विद्युत प्रणालियाँ, संचार प्रणालियाँ, राहत केंद्र, स्थल प्रशासनिक कार्यालय, अचल संस्थापनाएं, हैंडलिंग व्यवस्थाएं, क्रशिंग और कन्वेइंग प्रणालियाँ, रेलवे साइडिंग, पिट्स, शापट्स, इन्क्लाइंस, भूमिगत परिवहन प्रणालियाँ, हॉलिंग प्रणालियाँ (चल उपकरण को छोड़कर जब तक कि वह उसके स्थायी लाभकारी उपयोग के लिए भूमि में अंतःस्थापित न हो), वनरोपण के लिए सीमांकित भूमि और संगत कानून के अधीन खनन प्रचालनों से प्रभावित व्यक्तियों के पुनर्वास और पुनर्स्थापन के लिए भूमि;

(43ख) एकीकृत खदान (खदानों) के संबंध में, 'खनन योजना' या 'खदान योजना' से, समय-समय पर यथा संशोधित, खनिज रियायत नियम, 1960 के उपबंधों के अनुसार तैयार की गई और यथास्थिति, केन्द्रीय सरकार या राज्य सरकार, द्वारा खदान और खनिज (विकास और पुनर्वास) अधिनियम, 1957 की धारा 5 की उपधारा (2) के खंड (ख) के अधीन अनुमोदित की गई योजना अभिप्रेत है;"

3.13 मूल विनियम के विनियम 3 के खंड (45) के अंत में, अर्द्ध विराम (;) के स्थान पर विवरण चिन्ह (: ) रखा जाएगा और उक्त खंड के अधीन एक परंतुक निम्नानुसार जोड़ा जाएगा:

"परंतु यह कि एकीकृत खदान (खदानों) के लिए, प्रचालन एवं रखरखाव व्यय में, उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक, यदि कोई हो, को प्रदत्त खनन प्रभार को और खदान समापन व्यय को शामिल नहीं किया जाएगा।"

3.14 मूल विनियम के विनियम 3 के खंड (46) के बाद, नया खंड, अर्थात्, खंड (46क) को निम्नानुसार जोड़ा जाएगा:

"(46क) एकीकृत खदान (खदानों) के संबंध में 'पीक दर क्षमता' से खनन योजना में यथा विनिर्दिष्ट खदान की पीक दर क्षमता अभिप्रेत है;"

3.15 मूल विनियम के विनियम 3 के खंड (73) के उप-खंड (छ) के बाद, नया उप-खंड, अर्थात् (ज) को निम्नानुसार जोड़ा जाएगा:

"(ज) एकीकृत खदान (खदानों) खनन योजना के अनुसार"

#### 4. मूल विनियम के विनियम 4 का संशोधन:

4.1 मूल विनियम के विनियम 4 के खंड (4) के बाद, नया खंड, अर्थात् खंड (4क) को निम्नानुसार जोड़ा जाएगा:

"(4क) एकीकृत खदान (खदानों) के संबंध में, "टन" से कोयला या लिग्नाइट का मीट्रिक टन अभिप्रेत है;"

4.2 मूल विनियम के विनियम 4 के खंड (5) के स्थान पर, निम्नलिखित रखा जाएगा:

"(5) 'वर्ष' से 1 अप्रैल को आरंभ और 31 मार्च को समाप्त वित्तीय वर्ष अभिप्रेत है:

परंतु यह कि नई परियोजना या एकीकृत खदान (खदानों) के मामले में प्रथम वर्ष, वाणिज्यिक प्रचालन की तारीख से आरंभ होगा और 31 मार्च के तुरंत बाद समाप्त होगा।"

#### 5. मूल विनियम के विनियम 5 का संशोधन:

5.1 मूल विनियम के विनियम 5 के खंड (2) के बाद, नया खंड, अर्थात्, खंड (3) निम्नानुसार जोड़ा जाएगा:

"(3) एकीकृत खदान (खदानों) के मामले में, वाणिज्यिक प्रचालन की तारीख से निम्नलिखित का शीघ्रतम अभिप्रेत होगा -

(क) उस वर्ष, जिसमें खनन योजना के अनुसार पीक दर क्षमता का 25% हासिल किया गया है, के उत्तरवर्ती वर्ष की प्रथम तारीख; या

(ख) उस वर्ष, जिसमें इस विनियम के विनियम 7क के अनुसार उत्पादन का अनुमानित मूल्य, उस वर्ष में कुल व्यय से अधिक हो, के अनुवर्ती वर्ष की प्रथम तारीख; या

(ग) उत्पादन के आरंभ की तारीख से दो वर्षों की तारीख:

परंतु यह कि इस विनियम के खंड (3) के उपखंड (क) से उपखंड (ग) के अधीन किसी भी घटना के शीघ्रतम घटित होने पर उत्पादन कंपनी, अंतिम उपयोगकर्ता या संबंधित उत्पादन केन्द्र (केन्द्रों) के फायदाग्राहियों को एक सप्ताह पूर्व सूचना के साथ सुसंगत उपखंड के अधीन एकीकृत खदान (खदानों) के वाणिज्यिक प्रचालन की तारीख घोषित करेगी:

परंतु यह और कि यदि एकीकृत खदान (खदानें) वाणिज्यिक प्रचालन के लिए तैयार हैं किन्तु उसे ऐसे कारणों से वाणिज्यिक प्रचालन की तारीख की घोषणा करने से रोका गया है जो उत्पादन कंपनी या इसके आपूर्तिकर्ता या संविदाकारों या खदान विकासकर्ता और प्रचालक से संबंधित नहीं हैं, तो आयोग उत्पादन कंपनी द्वारा किए गए आवेदन पर इस विनियम के खंड (3) के किसी भी उपखंड के अधीन उन संगत कारणों पर विचार करते हुए जिन्होंने वाणिज्यिक प्रचालन की तारीख की घोषणा को रोका है, वाणिज्यिक प्रचालन की तारीख के रूप में ऐसी कोई भी तारीख अनुमोदित कर सकता है जो भी समुचित समझी जाए:

परंतु यह भी कि पूर्ववर्ती परंतुक के अधीन वाणिज्यिक प्रचालन की तारीख का अनुमोदन मांगने वाली उत्पादन कंपनी, वाणिज्यिक प्रचालन की तारीख के संबंध में, एकीकृत खदान (खदानों) के अंतिम उपयोगकर्ता या संबंधित उत्पादन केन्द्र (केन्द्रों) के फायदाग्राहियों को एक मास का पूर्व नोटिस देगी।"

## 6. मूल विनियम के विनियम 6 का संशोधन:

6.1 मूल विनियम के विनियम 6 को हटा दिया जाएगा।

## 7. मूल विनियम में नए विनियम 7क का अंतर्वेशन:

7.1 मूल विनियम के विनियम 7 के बाद, एक नया विनियम, अर्थात् 7क निम्नानुसार जोड़ा जाएगा:

**"7क. एकीकृत खदान के वाणिज्यिक प्रचालन की तारीख से पूर्व कोयले या लिग्नाइट की आपूर्ति:** एकीकृत खदान (खदानों) से कोयले या लिग्नाइट की आपूर्ति के लिए इनपुट मूल्य, उनके वाणिज्यिक प्रचालन की तारीख से पूर्व निम्नानुसार होगा:

- (क) कोयले की दशा में, विनिवेश अनुमोदन में उपलब्ध अनुमानित मूल्य, या विद्युत क्षेत्र को आपूर्तित कोयले की तत्स्थानी श्रेणी के लिए कोल इंडिया लिमिटेड का अधिसूचित मूल्य, जो भी कम हो; और
- (ख) लिग्नाइट की दशा में, विनिवेश अनुमोदन में उपलब्ध अनुमानित मूल्य, या लिग्नाइट के अंतरण मूल्य के लिए आयोग द्वारा यथा अवधारित अंतिम उपलब्ध पूल किया गया लिग्नाइट मूल्य, जो भी कम हो:

परंतु यह कि एकीकृत खदान (खदानों) के वाणिज्यिक प्रचालन की तारीख से पूर्व कोयले या लिग्नाइट की आपूर्ति से अर्जित कोई राजस्व, उक्त एकीकृत खदान (खदानों) की पूंजी लागत के समायोजन में प्रयुक्त किया जाएगा।"

## 8. मूल विनियम के विनियम 9 का संशोधन:

8.1 मूल विनियम के विनियम 9 के खंड (4) के अंत में, पूर्ण विराम (।) के स्थान पर उप विराम (:) रखा जाएगा और उक्त खंड के बाद, एक परंतुक निम्नानुसार जोड़ा जाएगा:

"परंतु यह कि एकीकृत खदान (खदानों) सहित उत्पादन कंपनी, एकीकृत खदान (खदानों) से कोयले या लिग्नाइट के इनपुट मूल्य के अवधारण के लिए, एकीकृत खदान (खदानों) के वाणिज्यिक प्रचालन की तारीख या इस विनियम की अधिसूचना की तारीख, जो भी बाद में हो, से 60 दिनों के भीतर याचिका दायर करेगी और इस विनियम के अनुसार संबंधित उत्पादन केन्द्र (केन्द्रों) के टैरिफ के अवधारण या पुनरीक्षण की मांग भी कर सकती है।"

## 9. मूल विनियम के विनियम 10 का संशोधन:

9.1 मूल विनियम के विनियम 10 के खंड (1) के बाद, नया खंड, अर्थात् खंड (1क) निम्नानुसार जोड़ा जाएगा:

"(1क) एकीकृत खदान (खदानों) वाली उत्पादन कंपनी, एकीकृत खदान (खदानों) से कोयले या लिग्नाइट के इनपुट मूल्य के अवधारण के लिए इस विनियम के अनुबंध—। (भाग—IV) के अनुसार आयोग के समक्ष, हो चुके व्यय और होने वाले अनुमानित व्यय के विवरणों, जो कि संपरीक्षक द्वारा विधिवत् प्रमाणित हैं, सहित याचिका दायर करेगी।"

## 10. मूल विनियम के विनियम 11 का संशोधन:

10.1 मूल विनियम के विनियम 11 के खंड (1) के बाद, नया खंड, अर्थात् खंड (2) निम्नानुसार जोड़ा जाएगा:

"(2) कानून प्रक्रिया में बदलाव या अप्रत्याशित घटना के लिए, एकीकृत खदान (खदानों) में कोई अतिरिक्त पूंजीकरण करने वाली उत्पादक कंपनी, फायदाग्राहियों को सूचित करने के बाद, ऐसे व्यय के लिए निहित पूर्वधारणाओं, अनुमानों और स्पष्टीकरण के साथ, ऐसे व्यय के लिए सिद्धांततः अनुमोदन हेतु याचिका दायर कर सकती है, यदि अनुमानित व्यय एकीकृत खदान (खदानों) की स्वीकृत पूंजी लागत के 10% या 100 करोड़ रुपये, जो भी कम हो, से अधिक होता है।"

### 11. मूल विनियम के विनियम 13 का संशोधन:

11.1 मूल विनियम के विनियम 13 के खंड (1) के बाद, नया खंड, अर्थात् खंड (1क) निम्नानुसार जोड़ा जाएगा:

"(1क) टैरिफ अवधि 2019-24 के लिए उत्पादन केन्द्र (केन्द्रों) की एकीकृत खदान (खदानों) से कोयले या लिग्नाइट का इनपुट मूल्य, निम्नलिखित के लिए दू अप किया जाएगा:

- (क) दिनांक 31.3.2024 तक अतिरिक्त पूंजी व्यय सहित आयोग द्वारा यथा स्वीकृत पूंजी व्यय;
- (ख) अप्रत्याशित घटना और कानून में परिवर्तन के कारण 31.3.2024 तक अतिरिक्त पूंजी व्यय सहित आयोग द्वारा यथा स्वीकृत पूंजी व्यय;
- (ग) विनियम 36अ के उपबंधों के अनुसार, प्रचालन एवं रखरखाव व्यय।"

11.2 मूल विनियम के विनियम 13 के खंड (4) के बाद नया खंड, अर्थात् खंड (4क) निम्नानुसार जोड़ा जाएगा:

"(4क) द्रूइंग अप के बाद, यदि पहले से वसूल किया गया इनपुट मूल्य, इस विनियम के अधीन आयोग द्वारा अनुमोदित इनपुट मूल्य से अधिक होता है या कम होता है, तो छह समान मासिक किस्तों में टैरिफ अवधि के संबंधित वर्षों की 1 अप्रैल को बैंक दर के समान दर पर साधारण ब्याज सहित यथास्थिति, अधिक वसूल की गई या कम वसूल की गई राशि, उत्पादन कंपनी द्वारा लौटाई जाएगी या वसूल की जाएगी:

परंतु यह कि उत्पादन कंपनी, अनुसूचित ऊर्जा के आधार पर ऐसी अधिक राशि फायदाग्राहियों को वापस करेगी या कम राशि को उनसे वसूल करेगी।"

### 12. मूल विनियम के विनियम 16 का संशोधन:

12.1 मूल विनियम के विनियम 16 के दूसरे परंतुक के बाद नया परंतुक निम्नानुसार जोड़ा जाएगा:

"परंतु यह भी कि एकीकृत खदान (खदानों) से कोयले या लिग्नाइट की आपूर्ति की दशा में, प्राथमिक ईंधन की अवधारित लागत, इस विनियम के अनुसार यथा आकलित यथास्थिति, कोयले या लिग्नाइट, के इनपुट मूल्य पर आधारित होगी।"

### 13. मूल विनियम के विनियम 22 का संशोधन:

13.1 मूल विनियम के विनियम 22 में, "परियोजना" शब्द के स्थान पर "नई परियोजनाओं" शब्द रखे जाएंगे।

### 14. मूल विनियम के अध्याय-9 के शीर्षक का संशोधन:

14.1 मूल विनियम के अध्याय-9 के शीर्षक में "की गणना" शब्द के स्थान पर "का अवधारण" शब्द रखे जाएंगे।

### 15. मूल विनियम के विनियम 36 का संशोधन:

15.1 मूल विनियम के विनियम 36 के खंड(1) में, "की गणना आयोग द्वारा अलग से अधिसूचित किए जाने वाले अधिनियमों के अनुसार की जाए" शब्दों के स्थान पर, "का अवधारण इस विनियम के अनुसार किया जाए"।

15.2 मूल विनियम के विनियम 36 के खंड (2) और (3) के स्थान पर, निम्नलिखित रखा जाएगा:

"(2) उत्पादन कंपनी, एकीकृत खदान (खदानों) के वाणिज्यिक प्रचालन की तारीख के बाद से लेकर इस विनियम के अधीन आयोग द्वारा कोयले के इनपुट मूल्य के अवधारण तक, उत्पादन केन्द्र के लिए कोयले के इनपुट मूल्य के रूप में एकीकृत खदान (खदानों) से कोयले की श्रेणी के अनुरूप कोल इंडिया लिमिटेड के अधिसूचित मूल्य या निवेश अनुमोदन में उपलब्ध अनुमानित मूल्य, जो भी कम हो, को अपनाएगी:

परंतु यह कि बिल किए गए कोयले की मात्रा के लिए, इस विनियम के अधीन अवधारित कोयले के इनपुट मूल्य और इस अवधारण से पूर्व यथा अंगीकार किए गए कोयले के इनपुट मूल्य के बीच के अंतर को, इस विनियम के खंड (4) के अनुसार समायोजित किया जाएगा।

(3) उत्पादन कंपनी, एकीकृत खदान (खदानों) के वाणिज्यिक प्रचालन की तारीख के बाद से लेकर इस विनियम के अधीन आयोग द्वारा लिग्नाइट के इनपुट मूल्य के अवधारण तक, लिग्नाइट के अंतरण मूल्य या निवेश अनुमोदन में उपलब्ध अनुमानित मूल्य, जो भी कम हो, के लिए आयोग द्वारा यथा अवधारित अंतिम

उपलब्ध पूल किया गया लिग्नाइट मूल्य पर उत्पादनकारी केन्द्र के लिए लिग्नाइट का इनपुट मूल्य निर्धारित करेगी:

परंतु यह कि बिल किए गए लिग्नाइट की मात्रा के लिए, इस विनियम के अधीन अवधारित लिग्नाइट के इनपुट मूल्य और इस अवधारण से पूर्व यथा निर्धारित लिग्नाइट के इनपुट मूल्य के बीच के अंतर को, इस विनियम के खंड (4) के अनुसार समायोजित किया जाएगा।"

15.3 मूल विनियम के विनियम 36 के खंड (3) के बाद नया खंड, अर्थात् खंड (4) निम्नानुसार जोड़ा जाएगा:

"(4) इस विनियम के खंड (2) या खंड (3) के अधीन इनपुट मूल्य की अधिकता या कम वसूली की दशा में, उत्पादन कंपनी छह समान मासिक किस्तों में टैरिफ अवधि के संबंधित वर्षों के 1 अप्रैल को प्रचलित बैंक दर के बराबर ब्याज की साधारण दर पर अधिक या कम राशि को यथास्थिति, वापस या वसूल, करेगी।"

**16. मूल विनियम के अध्याय 9 के अधीन नए विनियम का अंतःस्थापन:**

16.1 मूल विनियम के विनियम 36 के बाद, निम्नलिखित विनियम (36क से 36त) निम्नानुसार जोड़े जाएंगे:

**"36क. कोयले या लिग्नाइट का इनपुट मूल्य:** (1) एकीकृत खदान (खदानों) से कोयले या लिग्नाइट का इनपुट मूल्य निम्नलिखित अल्पघटकों के आधार पर अवधारित किया जाएगा:

I) खदान की प्रचालन लागत (आरओएम); और

II) अतिरिक्त प्रभार;

क. क्रशिंग प्रभार;

ख. वाशरी सीमा तक यथास्थिति, खदान के भीतर या एकीकृत खदान से, संबद्ध कोयला हैंडलिंग प्लांट, तक परिवहन प्रभार;

ग. खदान की सीमा पर हैंडलिंग प्रभार;

घ. वाशिंग प्रभार; और

ङ. यथास्थिति, वाशरी सीमा या कोयला हैंडलिंग प्लांट, से आगे और लदाई बिंदु तक परिवहन प्रभार:

परंतु यह कि एकीकृत खदान (खदानों) की दशा में, खनन गतिविधियों के क्षेत्र और प्रकृति के आधार पर अतिरिक्त प्रभारों के एक या एक से अधिक अल्प घटक लागू हो सकते हैं:

परंतु यह और कि लिग्नाइट के इनपुट मूल्य की संगणना, बकेट एक्सकेवेटर कनवेयर या बेल्ट-स्क्रैडर या इसके संयोजन जैसी प्रौद्योगिकी पर आधारित खदान के प्रचालन (आरओएम) और हैंडलिंग प्रभारों, यदि कोई हो, के आधार पर जाएगी।

(2) यथा लागू सांविधिक प्रभारों की अनुमति होगी।

**36ख. खदान की प्रचालन लागत (आरओएम):** (1) कोयला खदान (विशेष उपबंध) अधिनियम, 2015 के अधीन नीलामी के माध्यम से आबंटित एकीकृत खदान (खदानों) की दशा में, खदान की लागत को निम्नानुसार आकलित किया जाएगा:

$$\text{आरओएम लागत} = (\text{कोयले का उद्धृत मूल्य}) + (\text{नियत रिजर्व मूल्य})$$

जहाँ,

(i) संबंधित कोयला ब्लॉक या खदान के मामले में कोयले का उद्धृत मूल्य, कोयला खदान विकास और उत्पादन करार में यथा उपबंधित, पश्चात्पूर्वी वृद्धि के साथ, यदि कोई हो, कोयले का अंतिम मूल्य प्रस्ताव है:

परंतु यह कि नीलामी के दौरान उत्पादन कंपनी द्वारा उद्धृत अतिरिक्त प्रीमियम को, यदि कोई हो, खदान की प्रचालन लागत में नहीं माना जाएगा;

(ii) नियत रिजर्व मूल्य, कोयला खदान विकास और उत्पादन करार में यथा उपबंधित, पश्चात्पूर्वी वृद्धि के साथ, यदि कोई हो, नियत रिजर्व मूल्य प्रति टन है; और

(iii) नीलामी के माध्यम से आबंटित एकीकृत खदान (खदानों) के मामले में, आरओएम लागत के प्रयोजन के लिए विनियम 36घ के अधीन पूंजी लागत और विनियम 36ङ के अधीन अतिरिक्त पूंजी व्यय को स्वीकृत नहीं किया जाएगा।

(2) कोयला खदान (विशेष उपबंध) अधिनियम, 2015 के अधीन आबंटन के माध्यम से आबंटित एकीकृत खदान के मामले में कोयले की खदान की प्रचालन लागत निम्नानुसार आकलित की जाएगी:

आरओएम लागत = [(वार्षिक निष्कर्षण लागत / एटीक्यू) + खनन प्रभार] + (नियत रिज़र्व कीमत)

जहाँ,

- (i) वार्षिक निष्कर्षण लागत, इस विनियम के विनियम 36च के अनुसार यथा संगणित कोयले की निष्कर्षण लागत है;
- (ii) खनन प्रभार, खनन के लिए, जहाँ भी लागू हो, उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक को उत्पादन कंपनी द्वारा प्रदत्त कोयले का प्रति टन प्रभार है;
- (iii) नियत रिज़र्व मूल्य, कोयला खदान विकास और उत्पादन करार में यथा उपबंधित, पश्चात्वर्ती वृद्धि के साथ, यदि कोई हो, नियत रिज़र्व मूल्य प्रति टन है।

(3) लिग्नाइट के लिए एकीकृत खदान (खदानों) के मामले में, लिग्नाइट की खदान प्रचालन लागत निम्नानुसार आकलित की जाएगी:

आरओएम लागत = [(वार्षिक निष्कर्षण लागत / एटीक्यू) + (खनन प्रभार)]

जहाँ,

- (i) वार्षिक निष्कर्षण लागत, इस विनियम के विनियम 36च के अनुसार यथा संगणित कोयले की निष्कर्षण लागत है;
- (ii) खनन प्रभार, खनन के लिए, जहाँ भी लागू हो, उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक को उत्पादन कंपनी द्वारा प्रदत्त लिग्नाइट का प्रति टन प्रभार है;

(4) उत्पादन कंपनी, वार्षिक आधार पर कोयले या लिग्नाइट के निष्कर्षण के लिए खनन योजना का पालन करेगी और कोयला नियंत्रक या सक्षम प्राधिकारी से इस आशय का प्रमाणपत्र प्रस्तुत करेगी:

परंतु यह कि खनन योजना से विचलन पर केवल तभी विचार किया जाएगा यदि ऐसे विचलन, कोयला नियंत्रक द्वारा अनुमोदित किए गए हैं या सक्षम प्राधिकारी द्वारा पुनरीक्षित खनन योजना अनुमोदित की गई है।

(5) कोयले और लिग्नाइट की खदान प्रचालन लागत रुपये प्रति टन के संदर्भ में आकलित की जाएगी।

**36ग. अतिरिक्त प्रभार:** (1) जहाँ उत्पादन कंपनी द्वारा क्रशिंग या परिवहन या हैंडलिंग या वाशिंग, किसी खदान विकासकर्ता और प्रचालक या खदान विकासकर्ता और प्रचालक के अलावा किसी ऐजेंसी को नियुक्त किए बिना किया जाता है, वहाँ अतिरिक्त प्रभारों का आकलन निम्नानुसार किया जाएगा:

- (i) क्रशिंग प्रभार = वार्षिक क्रशिंग लागत / मात्रा;
- (ii) परिवहन प्रभार = वार्षिक परिवहन लागत / मात्रा:

परंतु यह कि, यथा लागू, पृथक परिवहन प्रभारों को खदान से वाशरी सीमा या एकीकृत खदान (खदानों) से संबद्ध कोयला हैंडलिंग संयंत्र तक और वाशरी सीमा या

एकीकृत खदान (खदानों) से संबद्ध यथास्थिति, कोयला हैंडलिंग संयंत्र से आगे और लदाई बिंदु तक, माना जाएगा;

- (iii) हैंडलिंग प्रभार = वार्षिक हैंडलिंग लागत / मात्रा; और
- (iv) वाशिंग प्रभार = वार्षिक वाशिंग लागत / मात्रा।

जहाँ,

(क) वार्षिक क्रशिंग लागत, वार्षिक परिवहन लागत, वार्षिक हैंडलिंग लागत और वार्षिक वाशिंग लागत का आकलन निम्नलिखित अल्प घटकों के आधार पर किया जाएगा, जिसके लिए उत्पादन कंपनी द्वारा पूंजी लागत पृथक् रूप से जमा की जाएगी:

- (i) अवक्षयण;
- (ii) कार्यशील पूंजी पर ब्याज;
- (iii) ऋण पर ब्याज;
- (iv) इक्विटी पर रिटर्न;
- (v) प्रचालन और रखरखाव व्यय, खनन प्रभार को छोड़कर;
- (vi) सांविधिक प्रभार, यदि लागू हो।

(ख) मात्रा, कोयले या लिग्नाइट की टन में मात्रा जो कि संपरीक्षक द्वारा वर्ष के दौरान विधिवत रूप से सत्यापित, यथास्थिति, क्रश की गई या पहुँचाई गई या हँडल की गई या वाश की गई, होगी।

(2) जहाँ क्रशिंग, परिवहन, हँडलिंग या वाशिंग, उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक के दायरे के भीतर हैं, वहाँ किसी भी अतिरिक्त प्रभार को स्वीकृत नहीं किया जाएगा, चूंकि उन्हें खदान विकासकर्ता और प्रचालक के खनन प्रभार के माध्यम से वसूल किया जाएगा।

(3) जहाँ क्रशिंग, परिवहन, हँडलिंग या वाशिंग, उत्पादन कंपनी द्वारा खदान विकासकर्ता और प्रचालक के अलावा किसी एजेंसी को नियुक्त करके किया गया है, वहाँ ऐसी एजेंसियों के वार्षिक प्रभारों को प्रचालन और रखरखाव व्यय का हिस्सा माना जाएगा, परंतु यह कि इन प्रभारों को पारदर्शी प्रतिस्पर्धात्मक बोली प्रक्रिया के माध्यम से खोजा गया हो।

(4) कोल इंडिया लिमिटेड या समान रूप से स्थित कोयला खदानों के प्रभारों या किसी अन्य संदर्भित प्रभारों को ध्यान में रखते हुए, क्रशिंग प्रभारों, परिवहन प्रभारों, हँडलिंग प्रभारों और वाशिंग प्रभारों को आयोग द्वारा प्रज्ञावान जांच के बाद स्वीकृत किया जाएगा।

(5) क्रशिंग प्रभारों, परिवहन प्रभारों, हँडलिंग प्रभारों और वाशिंग प्रभारों को रुपये प्रति टन के अनुसार आकलित किया जाएगा।

**36घ. पूंजी लागत:** (1) पूंजी लागत का आंकलन करने के लिए, वाणिज्यिक प्रचालन की तारीख तक एकीकृत खदान (खदानों) के विकास के लिए संपरीक्षक द्वारा विधिवत् प्रमाणित आईडीसी और आईईडीसी सहित व्यय पर विचार किया जाएगा।

(2) पूंजी व्यय को आयोग द्वारा प्रज्ञावान जांच के बाद स्वीकृत किया जाएगा।

(3) क्रशिंग, परिवहन, हँडलिंग, वाशिंग और खनन प्रचालनों के लिए आवश्यक अन्य खनन गतिविधियों के लिए बुनियादी ढांचे पर किए गए पूंजी व्यय का आकलन, इस विनियम के अनुसार पृथक् रूप से किया जाएगा:

परंतु यह कि जहाँ क्रशिंग, परिवहन, हँडलिंग या वाशिंग, उत्पादन कंपनी द्वारा किया गया है, वहाँ इन अल्प घटकों के बुनियादी ढांचे पर किए गए व्यय को पूंजीकृत किया जाएगा;

परंतु यह और कि जहाँ खदान का विकास और प्रचालन, उत्पादन कंपनी द्वारा खदान विकासकर्ता और प्रचालक या खदान विकासकर्ता और प्रचालक के अलावा किसी एजेंसी की नियुक्ति द्वारा क्रशिंग, परिवहन, हँडलिंग या वाशिंग के किसी घटक के साथ या बिना किया गया है, तो खदान विकासकर्ता और प्रचालक या ऐसी एजेंसी द्वारा किए गए पूंजी व्यय को उत्पादन कंपनी द्वारा पूंजीकृत नहीं किया जाएगा और उस पर इनपुट मूल्य के अवधारण के लिए विचार नहीं किया जाएगा।

(4) पूंजी व्यय का अवधारण खनन योजना, विस्तृत परियोजना रिपोर्ट, खदान समापन योजना, लागत लेखापरीक्षा रिपोर्ट और ऐसे अन्य विवरणों, जैसा भी आयोग द्वारा उपयुक्त समझा जाए, पर विचार करते हुए किया जाएगा परंतु जो इन तक सीमित नहीं होंगे।

(5) उस एकीकृत खदान (खदानों) के मामले में, जिसने 1.4.2019 से पूर्व वाणिज्यिक प्रचालन की तारीख घोषित की है, 31.3.2019 को समाप्त होने वाली अवधि के लिए आयोग द्वारा स्वीकृत पूंजी व्यय, इनपुट मूल्य की संगणना के लिए आधार होगा।

**36ङ. अतिरिक्त पूंजी व्यय:** (1) एकीकृत खदान (खदानों) के संबंध में, वाणिज्यिक प्रचालन की तारीख के बाद और पीक दर क्षमता प्राप्त करने की तारीख तक किए गए या किए जाने वाले अनुमानित व्यय को, आयोग द्वारा प्रज्ञावान जांच के अध्यक्षीन स्वीकृत किया जाएगा और निम्नलिखित आधारों पर खनन योजना में यथा विनिर्दिष्ट वर्ष की वार्षिक लक्ष्य मात्रा या उस वर्ष में वास्तविक निष्कर्षण, जो भी अधिक हो, के अनुरूप अतिरिक्त पूंजी व्यय के रूप में टैरिफ अवधि के संबंधित वर्ष में पूंजीकृत किया जाएगा:

(क) खनन योजना के अनुसार गतिविधियों पर व्यय;

(ख) निष्पादन के लिए आस्थगित कार्यों और वाणिज्यिक प्रचालन की तारीख से पूर्व निष्पादित कार्यों हेतु अभिज्ञात मानी गई अनुन्मोचित दायित्वों के लिए व्यय;

(ग) किसी सांविधिक प्राधिकरणों के दिशानिर्देशों या आदेशों के अनुपालन के लिए किए जाने वाले आवश्यक कार्यों हेतु व्यय;

(घ) किसी न्यायालय के आदेश या डिक्री या माध्यस्थम् के पंचाट के अनुपालन से उद्भूत दायित्व;

(ङ) खनन योजना के अनुसार भूमि के उपापन और विकास के लिए व्यय;

(च) अतिरिक्त भारी भू-संपर्क चल मशीनरी के उपयोगी जीवन के समापन पर, उसके प्रतिस्थापन के लिए उपापन हेतु व्यय; और

(छ) कानून में परिवर्तन या अप्रत्याशित घटनाओं के कारण दायित्व:

परंतु यह कि किसी आस्ति के प्रतिस्थापन के मामले में अतिरिक्त पूंजीकरण का आंकलन, कुल नियत आस्तियों और पूंजीकरण विहीनता के कारण प्रतिस्थापित आस्तियों के संचयी अवक्षयण के समायोजन के बाद किया जाएगा:

परंतु यह और कि उत्पादन कंपनी भारी भू-संपर्क चल मशीनरी जैसे भारी खनन उपकरण के उपापन और प्रतिस्थापन के लिए दिशानिर्देश तैयार करेगी और उसे फायदाग्राहियों के साथ साझा करेगी और अपनी याचिका के साथ आयोग को प्रस्तुत करेगी।

(2) एकीकृत खदान (खदानों) के संबंध में, पीक दर क्षमता प्राप्त करने की तारीख के बाद किए गए या किए जाने वाले अनुमानित व्यय को आयोग द्वारा प्रज्ञावानपूर्ण जांच के अध्यक्षीन स्वीकृत किया जाएगा और निम्नलिखित आधारों पर खनन योजना में यथा विनिर्दिष्ट संबंधित वर्षों के वार्षिक लक्ष्य मात्रा के अनुरूप अतिरिक्त पूंजी व्यय के रूप में पूंजीकृत किया जाएगा:

(क) खनन योजना के अनुसार गतिविधियों पर व्यय, यदि कोई हो;

(ख) किसी सांविधिक प्राधिकरण के दिशानिर्देशों या आदेशों के पालन के लिए किए जाने वाले आवश्यक कार्यों हेतु व्यय;

(ग) आदेश या किसी न्यायालय की डिक्री या माध्यस्थम् के पंचाट के अनुपालन से उद्भूत दायित्व;

(घ) खनन योजना के अनुसार भूमि के उपापन और विकास के लिए व्यय;

(ङ) विधि में परिवर्तन या अप्रत्याशित घटनाओं के कारण दायित्व:

परंतु यह कि किसी आस्ति के प्रतिस्थापन के मामले में अतिरिक्त पूंजीकरण का आंकलन, कुल नियत आस्तियों, संचयी अवक्षयण और पूंजीकरण विहीनता के कारण प्रतिस्थापित आस्तियों के ऋण के संचयी पुनर्भुगतान के समायोजन के बाद किया जाएगा।

(3) इस विनियम के प्रयोजन के लिए निम्नलिखित आधारों पर, व्यय को अतिरिक्त पूंजी व्यय

के रूप में नहीं माना जाएगा:

क) किया गया व्यय परंतु पूंजीकृत नहीं चूंकि आस्तियों को सेवा में नहीं लाया गया (चालू पूंजी संकर्म);

ख) खदान समापन व्यय;

ग) खनन योजना के अंतर्गत शामिल नहीं होने वाले कार्यों पर व्यय, जब तक कि इस विनियम के खंड (2) के उप-खंड (ङ) या खंड (1) के उप-खंड (छ) के अंतर्गत शामिल न किया गया हो;

घ) उपयोगी जीवन के पूरा होने से आस्तियों के अप्रचलित होने के कारण या प्रौद्योगिकी के अप्रचलित होने के कारण प्रतिस्थापन पर व्यय, यदि ऐसी आस्तियों की मूल लागत को कुल नियत आस्तियों से पूंजीकरण विहीन नहीं किया गया है।

**36च. वार्षिक निष्कर्षण लागत:** एकीकृत खदान (खदानों) की वार्षिक निष्कर्षण लागत में निम्नलिखित संघटक शामिल होंगे:

(i) अवक्षयण;

(ii) ऋण पर ब्याज;

(iii) इक्विटी पर रिटर्न;

(iv) प्रचालन तथा रखरखाव खर्च, खनन प्रभार को छोड़कर;

(v) कार्य पूंजी पर ब्याज;

(vi) खदान समापन व्यय, यदि खनन प्रभार में शामिल नहीं किया गया; और

(vii) सांविधिक प्रभार, यदि लागू हो।

**36छ. पूंजीगत संरचना, इक्विटी पर रिटर्न और ऋण पर ब्याज:** (1) एकीकृत खदान (खदानों) के लिए, वाणिज्यिक प्रचालन की तारीख को और पीक दर क्षमता प्राप्त करने की तारीख को, ऋण-इक्विटी अनुपात पर इस विनियम के विनियम 18 के खंड(1) के अधीन यथा विनिर्दिष्ट ढंग से विचार किया जाएगा:

परंतु यह कि लिग्नाइट के संबंध में, 1.4.2019 से पूर्व वाणिज्यिक प्रचालन की तारीख वाली एकीकृत खदान (खदानों) के लिए, 31.3.2019 को समाप्त अवधि के लिए आयोग द्वारा स्वीकृत ऋण-इक्विटी अनुपात, इनपुट मूल्य की संगणना के लिए आधार होगा।

(2) एकीकृत खदान (खदानों) के लिए, इस विनियम के अधीन आयोग द्वारा स्वीकृत अतिरिक्त पूंजी व्यय के लिए ऋण-इक्विटी अनुपात पर, इस विनियम के खंड (1) के अधीन यथा विनिर्दिष्ट ढंग से विचार किया जाएगा।

(3) इक्विटी पर रिटर्न को इस विनियम के खंड (1) के अधीन प्राप्त इक्विटी आधार पर रूपये के संदर्भ में 14% की आधार दर पर संगणित किया जाएगा।

(4) इस विनियम के खंड (3) के अनुसार इक्विटी पर रिटर्न की आधार दर को इस विनियम के विनियम 31 के अधीन यथा विनिर्दिष्ट ढंग से संगणित प्रभावी कर दर के साथ सकल किया जाएगा।

(5) इस विनियम के खंड (1) के अधीन अवधारित ऋण पर ब्याज, मानकीय ऋण सहित, यदि कोई हो, का आंकलन, इस विनियम के विनियम 32 के खंड (2) से खंड (7) के अनुसार वास्तविक ऋण पोर्टफोलियो के आधार पर परिकलित भारित औसत ब्याज की दर को ध्यान में रखते हुए, किया जाएगा।

**36ज. अवक्षयण:** (1) एकीकृत खदान (खदानों) के मामले में अवक्षयण, स्ट्रेट लाइन पद्धति का उपयोग करते हुए वाणिज्यिक प्रचालन की तारीख से संगणित किया जाएगा:

परंतु यह कि लिग्नाइट की एकीकृत खदान (खदानों), जिन्हें 31.3.2019 को या इससे पूर्व वाणिज्यिक प्रचालन के अधीन घोषित किया गया है, के संबंध में स्वीकृत अवक्षयण क्रिया पद्धति का उपयोग, लिग्नाइट के इनपुट मूल्य के अवधारण के लिए किया जाना जारी रहेगा।

(2) अवक्षयण के प्रयोजन के लिए मूल्य आधार, आयोग द्वारा स्वीकृत आस्ति की पूंजी लागत होगा:

परंतु यह कि,

- (i) अनुदान से खरीदी गई फ्रीहोल्ड भूमि या आस्तियों को अवक्षणीय आस्तियों के रूप में नहीं माना जाएगा और उनकी लागत को आस्तियों के अवक्षणीय मूल्य की संगणना करते समय पूंजी लागत में सम्मिलित नहीं किया जाएगा;
- (ii) जहाँ फ्रीहोल्ड भूमि का आबंटन सशर्त है और लौटाई जानी अपेक्षित है, वहाँ ऐसी भूमि की लागत, आयोग द्वारा प्रज्ञावानपूर्ण जांच के अध्यक्षीन, अवक्षयण के प्रयोजन के लिए मूल्य आधार का हिस्सा होगी; और
- (iii) पट्टे पर ली गई भूमि, पट्टे की अवधि या एकीकृत खदान (खदानों) के शेष जीवन, जो भी कम हो, पर परिशोधित की जाएगी।

(3) किसी आस्ति का निस्तारण मूल्य, आस्ति की पूंजी लागत के 5% के रूप में माना जाएगा:

परंतु यह कि निस्तारण मूल्य निम्नलिखित प्रकार से होगा:

- (i) सूचना प्रौद्योगिकी उपकरण और सॉफ्टवेयर के लिए शून्य;
- (ii) शून्य या भूमि के लिए उत्पादन कंपनी द्वारा राज्य सरकार के साथ यथा सहमति; और
- (iii) विशेषीकृत खनन उपकरण के लिए कंपनी अधिनियम, 2013 के अधीन कॉर्पोरेट कार्य मंत्रालय द्वारा यथा अधिसूचित।

(4) एकीकृत खदान (खदानों) के मामले में, अवक्षयण का आकलन वार्षिक तौर पर, अवक्षयण दरों का उपयोग करते हुए या इस विनियम के परिशिष्ट 1क में विनिर्दिष्ट प्रत्याशित उपयोगी जीवन के आधार पर किया जाएगा:

परंतु यह कि विशेषीकृत खनन उपकरण का अवक्षयण, उपयोगी जीवन के अनुसार और कंपनी अधिनियम, 2013 के अधीन कारपोरेट कार्य मंत्रालय द्वारा यथा अधिसूचित अवक्षयण दर पर किया जाएगा।

**36झ. प्रचालन तथा रखरखाव खर्च:** (1) एकीकृत खदान (खदानों) के संबंध में, प्रचालन और रखरखाव खर्चों को निम्नानुसार स्वीकृति दी जाएगी:

- (क) 31 मार्च, 2024 को समाप्त टैरिफ अवधि के लिए, कोयले की एकीकृत खदान (खदानों) के संबंध में प्रचालन और रखरखाव खर्चों को, आयोग द्वारा प्रज्ञावान जांच के अध्यक्षीन, टैरिफ अवधि के प्रत्येक वर्ष के लिए अनुमानित प्रचालन और रखरखाव खर्चों के आधार पर अनुमति दी जाएगी;

परंतु यह कि इस खंड के अधीन स्वीकृत प्रचालन और रखरखाव खर्चों को 31 मार्च, 2024 को समाप्त टैरिफ अवधि के लिए वास्तविक खर्चों के आधार पर टूट अप किया जाएगा।

- (ख) 31 मार्च, 2019 को या इसके पूर्व प्रारंभ लिग्नाइट की एकीकृत खदान (खदानों) के संबंध में, 31 मार्च, 2024 को समाप्त टैरिफ अवधि के लिए प्रचालन और रखरखाव खर्चों का आकलन, वर्ष 2018-19 के दौरान आयोग द्वारा यथा स्वीकृत प्रचालन और रखरखाव खर्चों के आधार पर किया जाएगा और इसमें 3.5% प्रतिवर्ष की दर पर वृद्धि की जाएगी;

(ग) 31 मार्च, 2019 के बाद प्रारंभ लिग्नाइट की एकीकृत खदान (खदानों) के संबंध में, 31 मार्च, 2024 को समाप्त टैरिफ अवधि के लिए प्रचालन और रखरखाव खर्चों को, आयोग द्वारा प्रज्ञावान जांच के अध्यक्षीन, टैरिफ अवधि के प्रत्येक वर्ष के लिए अनुमानित प्रचालन और रखरखाव खर्चों के आधार पर स्वीकृत किया जाएगा;

परंतु यह कि इस खंड के अधीन प्रचालन और रखरखाव खर्चों को, 31 मार्च, 2024 को समाप्त टैरिफ अवधि के लिए, वास्तविक खर्चों के आधार पर टूट अप किया जाएगा।

(2) जहाँ एकीकृत खदान (खदानों) का विकास और प्रचालन, उत्पादन कंपनी द्वारा खदान विकासकर्ता और प्रचालक की नियुक्ति करके किया गया है, वहाँ ऐसे खदान विकासकर्ता और प्रचालक के खनन प्रभार, इस विनियम के खंड (1) के अधीन प्रचालन और रखरखाव खर्चों में शामिल नहीं होंगे;

(3) जहाँ क्रशिंग या परिवहन या हैंडलिंग या वाशिंग या उसके किसी संयोजन के लिए, उत्पादन कंपनी द्वारा प्रतिस्पर्धात्मक बोली प्रक्रिया के माध्यम से खदान विकासकर्ता और प्रचालक के अलावा कोई एजेंसी नियुक्त की जाती है, वहाँ

ऐसी एजेंसी के वार्षिक प्रभारों को, आयोग द्वारा प्रज्ञावान जांच के अध्यक्षीन, इस विनियम के खंड (1) के अधीन प्रचालन और रखरखाव खर्चों का हिस्सा माना जाएगा।

**36अ. कार्य पूंजी पर ब्याज:** (1) कोयले की एकीकृत खदान (खदानों) की कार्य पूंजी में निम्नलिखित शामिल होंगे:

- (i) सुसंगत वर्ष के लिए वार्षिक लक्ष्य मात्रा के तदनु रूप, उत्पादन के 7 दिनों के लिए कोयला भंडार की इनुपुट लागत;
- (ii) उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक के खनन प्रभार और खदान विकासकर्ता और प्रचालक के अलावा किसी एजेंसी के वार्षिक प्रभारों को छोड़कर, प्रचालन और रखरखाव खर्चों के 15% पर विस्फोटक, स्नेहक और ईंधन सहित स्टोर और पुर्जों की खपत;
- (iii) उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक के खनन प्रभार और खदान विकासकर्ता और प्रचालक के अलावा किसी एजेंसी के वार्षिक प्रभारों को छोड़कर, एक मास के लिए प्रचालन और रखरखाव खर्चें।

(2) लिग्नाइट की एकीकृत खदान (खदानों) की कार्य पूंजी में निम्नलिखित शामिल होंगे:

- (i) वर्ष के लिए वार्षिक लक्ष्य मात्रा के तदनु रूप, उत्पादन के 7 दिनों के लिए लिग्नाइट भंडार की इनुपुट लागत;
- (ii) उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक के खनन प्रभार और खदान विकासकर्ता और प्रचालक के अलावा किसी एजेंसी के वार्षिक प्रभारों को छोड़कर, प्रचालन और रखरखाव खर्चों के 20% पर विस्फोटक, स्नेहक और ईंधन सहित स्टोर और पुर्जों की खपत;
- (iii) उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक के खनन प्रभार और खदान विकासकर्ता और प्रचालक के अलावा किसी एजेंसी के वार्षिक प्रभारों को छोड़कर, एक मास के लिए प्रचालन और रखरखाव खर्चें।

(3) कार्य पूंजी पर ब्याज की दर और भुगतान का अवधारण, इस विनियम के विनियम 34 के खंड (3) और खंड (4) के अनुसार किया जाएगा।

**36ट. खदान समापन खर्च:** (1) जहाँ खदान समापन, उत्पादन कंपनी द्वारा किया गया है, वहाँ उक्त जमा पर अर्जित ब्याज, यदि कोई हो, के समायोजन के बाद, खनन योजना के अनुसार एस्करो खाते में जमा की गई राशि को, खदान समापन खर्चों के रूप में स्वीकृत किया जाएगा:

परंतु यह कि,

क) एकीकृत खदान (खदानों) के वाणिज्यिक प्रचालन की तारीख से पूर्व, खनन योजना के अनुसार एस्करो खाते में जमा की गई राशि पृथक् रूप से उपदर्शित की जाएगी और उधार दर से जुड़ी वार्षिकी के रूप में एकीकृत खदान (खदानों) के उपयोगी जीवन में वसूल की जाएगी;

ख) खनन योजना के अनुसार एस्करो खाते में जमा की गई राशि, या खदान समापन के प्रति किया गया कोई व्यय, इनपुट मूल्य की संगणना के लिए पूंजी लागत में शामिल नहीं किया जाएगा;

ग) वर्ष 2019-24 की टैरिफ अवधि के दौरान, जहाँ खनन समापन के लिए किया गया व्यय, एस्करो खाते से प्राप्त प्रतिपूर्ति से कम होता है या अधिक होता है, वहाँ उस कमी या अधिकता को समायोजन के लिए बाद के वर्षों तक आगे ले जाया जाएगा।

(2) खदान समापन के लिए राशि, खनन योजना के अनुसार एस्करो खाते में जमा की जाएगी और टैरिफ अवधि के किसी भी वर्ष के दौरान, खदान समापन के प्रति किए गए व्यय का विचार किए बिना इनपुट मूल्य के भाग के रूप में वसूल की जाएगी।

(3) जहाँ खदान समापन, उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक के कार्य-क्षेत्र के भीतर है और खदान समापन व्यय, खदान विकासकर्ता और प्रचालक के खनन प्रभार का भाग है, वहाँ खदान समापन व्यय को खनन प्रभारों में से पूरा किया जाएगा और उत्पादन कंपनी के लिए कोई भी खदान समापन व्यय पृथक् रूप से स्वीकृत नहीं होंगे:

परंतु यह कि,

क) इनपुट मूल्य की संगणना में, खदान विकासकर्ता और प्रचालक द्वारा या उत्पादन कंपनी द्वारा एस्करो खाते में जमा की गई राशि और खदान समापन हेतु किए गए व्यय के लिए एस्करो खाते से प्राप्त किसी राशि पर विचार नहीं किया जाएगा; और

ख) इस विनियम के विनियम 32 में विनिर्दिष्ट पद्धति के अनुसार, वास्तविक ऋण पोर्टफोलियों के आधार पर संगणित ब्याज की भारित औसत दर को ध्यान में रखते हुए, आकलित उधार लागत, और वर्ष में एस्करो खाते में जमा राशि और एस्करो खाते से प्राप्त ब्याज के अंतर को, मामला-दर-मामला आधार पर, खदान समापन व्यय के भाग के रूप में, संबंधित वर्ष के कोयले या लिग्नाइट की इनपुट मूल्य में समायोजित किया जाएगा।

(4) जहाँ खदान समापन, एकीकृत खदान (खदानों) के उपयोगी जीवन के केवल एक हिस्से के लिए, उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक के कार्य-क्षेत्र के भीतर है, और शेष उपयोगी जीवन के लिए खदान समापन उत्पादन कंपनी करती है, वहाँ उत्पादन कंपनी द्वारा अवधि के दौरान किए गए खदान समापन का उपचार, इस विनियम के खंड(1) के अनुसार किया जाएगा और खदान विकासकर्ता और प्रचालक द्वारा अवधि के दौरान किए गए खदान समापन का निर्धारण, इस विनियम के खंड (3) के अनुसार किया जाएगा:

परंतु यह कि एकीकृत खदान (खदानों) के उपयोगी जीवन के अंत में खदान समापन के निर्धारण का निर्णय, आयोग द्वारा मामला-दर-मामला आधार पर किया जाएगा।

(5) इस विनियम के अनुसार आकलित खदान समापन व्यय, कोयला खदान (विशेष उपबंध) अधिनियम, 2015 के अधीन नीलामी के माध्यम से आबटित एकीकृत खदान (खदानों) के मामले में लागू नहीं होगा।

**36ठ. इनपुट मूल्य का अवधारण:** (1) कोयले या लिग्नाइट के इनपुट मूल्य का अवधारण निम्नानुसार किया जाएगा:

$$\text{इनपुट मूल्य} = [\text{आरओएम लागत} + \text{अतिरिक्त प्रभार}]$$

(2) अधिभार निष्कासन में कमी, जीसीवी समायोजन और गैर-टैरिफ आय, यदि कोई हो, के कारण समायोजन के कारण उत्पन्न ऋण से, इस विनियम में विनिर्दिष्ट ढंग से पृथक् रूप से निपटा जाएगा।

(3) यथा लागू सांविधिक प्रभारों की अनुमति होगी।

**36ड. इनपुट प्रभारों की वसूली:** (1) कोयले या लिग्नाइट के इनपुट प्रभारों की वसूली निम्नानुसार होगी:

$$\text{इनपुट प्रभार} = [\text{इनपुट मूल्य} \times \text{आपूर्तित कोयले या लिग्नाइट की मात्रा}] + \text{यथा लागू सांविधिक प्रभार};$$

परंतु यह कि जहाँ किसी माह में, एकीकृत खदान (खदानों) से कोयले के इनपुट मूल्य पर आधारित ऊर्जा प्रभार दर, कोयले की अनुरूप श्रेणी के लिए, कोल इंडिया लिमिटेड के अधिसूचित मूल्य पर आधारित ऊर्जा प्रभार दर से 20% अधिक होती है, वहाँ उत्पादन कंपनी द्वारा फायदाग्राही (फायदाग्राहियों) की पूर्व सहमति लेना अपेक्षित होगा:

परंतु यह और कि जहाँ फायदाग्राहियों की ऐसी सहमति नहीं है, वहाँ ऐसी एकीकृत खदान (खदानों) से कोयले का इनपुट मूल्य इस प्रकार निर्धारित होगा कि किसी माह में, एकीकृत खदान (खदानों) से कोयले के इनपुट मूल्य पर आधारित ऊर्जा प्रभार दर, कोयले की अनुरूप श्रेणी के लिए, कोल इंडिया लिमिटेड के अधिसूचित मूल्य पर आधारित ऊर्जा प्रभार दर से 20% से अधिक नहीं होगी:

परंतु यह भी कि कोयले के इनपुट मूल्य पर आधारित ऊर्जा प्रभार दर, विद्युत क्रय करार की अवधि के दौरान, उस ऊर्जा प्रभार दर से अधिक नहीं होगी जो कि विद्यमान विद्युत क्रय करार के निबंधन व शर्तों के अनुसार प्राप्त होती।

(2) उत्पादन कंपनी प्रत्येक माह के लिए, एकीकृत खदान (खदानों) के वाणिज्यिक प्रचालन की तारीख से कोयले के अनुरूप श्रेणी के लिए, कोयले के इनपुट मूल्य और कोल इंडिया लिमिटेड के अधिसूचित मूल्य पर आधारित तुलनात्मक ऊर्जा प्रभार दर का आकलन करेगी और इसे फायदाग्राहियों के साथ साझा करेगी।

**36ढ. अधिभार निष्कासन में कमी के कारण समायोजन (ओबी समायोजन):** (1) उत्पादन कंपनी, खनन योजना में यथा विनिर्दिष्ट अधिभार को निष्कासित करेगी।

(2) किसी वर्ष के दौरान, अधिभार निष्कासन में कमी के मामले में, उत्पादन कंपनी को, अधिभार निष्कासन में अधिकता, यदि कोई हो, के विरुद्ध ऐसी कमी को पश्चात्पूर्ती तीन वर्षों के दौरान समायोजित करने की अनुमति होगी।

(3) किसी वर्ष के दौरान, अधिभार निष्कासन में अधिकता के मामले में, उत्पादन कंपनी को, कमी, यदि कोई हो, के विरुद्ध समायोजन के लिए ऐसी अधिकता को पश्चात्पूर्ती तीन वर्षों के दौरान आगे ले जाने की अनुमति होगी।

(4) जहाँ किसी वर्ष के अधिभार निष्कासन में कमी को उत्पादन कंपनी द्वारा इस विनियम के खंड (2) के अनुसार ठीक नहीं किया जाता है, तो उस वर्ष के लिए अधिभार निष्कासन (ओबी समायोजन) की कमी के कारण समायोजन निम्नानुसार किया जाएगा:

ओबी समायोजन = [वर्ष के दौरान अधिभार निष्कासन में कमी के लिए समायोजन का कारक] x [वर्ष के दौरान खनन प्रभार + वर्ष के दौरान प्रचालन और रखरखाव व्यय]

जहाँ,

- i) वर्ष के दौरान, अधिभार निष्कासन में कमी के लिए समायोजन के कारक को निम्नानुसार आकलित किया जाएगा:

$$\left[ \frac{\text{[(वर्ष के दौरान निष्कर्षित कोयले या लिग्नाइट की वास्तविक मात्रा x खनन योजना के अनुसार वार्षिक स्ट्रिपिंग अनुपात) - (वर्ष के दौरान निष्कासित अधिभार की वास्तविक मात्रा / खनन योजना के अनुसार वार्षिक स्ट्रिपिंग अनुपात)]}{\text{(वार्षिक लक्ष्य की मात्रा)}} \right]$$

- ii) वार्षिक स्ट्रिपिंग अनुपात, खनन योजना में यथा विनिर्दिष्ट कोयले या लिग्नाइट के एक यूनिट के लिए निष्कासित की जाने वाले अधिभार की मात्रा का अनुपात है ।
- iii) खनन प्रभार, उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक को खनन, जहाँ भी लागू हो, के लिए उत्पादन कंपनी द्वारा प्रदत्त कोयले या लिग्नाइट का प्रति टन प्रभार है ।
- iv) खनन प्रभार और प्रचालन और रखरखाव व्यय, वार्षिक लक्ष्य की मात्रा के तदनु रूप रूप प्रति टन में होंगे ।

(5) अधिभार निष्कासन में कमी के कारण समायोजन से संबंधित इस विनियम के उपबंध, कोयला खदान (विशेष प्रावधान) अधिनियम, 2015 के अधीन नीलामी के माध्यम से आबंटित एकीकृत खदान (खदानों) के मामले में लागू नहीं होंगे ।

**36ग. जीसीवी में कमी के कारण समायोजन (जीसीवी समायोजन):** (1) यदि किसी वर्ष में एकीकृत खदान (खदानों) से निष्कर्षित कोयले की भारित औसत जीसीवी, उस खदान (खदानों) के लिए कोयले की घोषित जीसीवी से अधिक होती है, तो जीसीवी समायोजन की अनुमति नहीं होगी ।

(2) यदि किसी वर्ष में एकीकृत खदान (खदानों) से निष्कर्षित कोयले का भारित औसत जीसीवी, उस खदान (खदानों) के लिए कोयले की घोषित जीसीवी से कम होता है, तो उस वर्ष में जीसीवी समायोजन निम्नानुसार किया जाएगा:

(क) जहाँ एकीकृत खदान (खदानों) का आबंटन कोयला खदान (विशेष प्रावधान) अधिनियम, 2015 के अधीन नीलामी के माध्यम से किया गया है:

$$\text{जीसीवी समायोजन} = (\text{कोयले का कोटेड मूल्य} + \text{नियत रिजर्व मूल्य}) \times \left[ \frac{\text{(कोयले की घोषित जीसीवी - वर्ष में निष्कर्षित कोयले का भारित औसत जीसीवी)}}{\text{(कोयले की घोषित जीसीवी)}} \right]$$

जहाँ,

- i) कोयले का कोटेड मूल्य, कोयला खदान विकास और उत्पादन करार में यथा उपबंधित पश्चात्वर्ती वृद्धि, यदि कोई हो, के साथ संबंधित कोयला ब्लॉक या खदान की बाबत कोयले का अंतिम मूल्य प्रस्ताव है:

परंतु यह कि उत्पादन कंपनी द्वारा नीलामी में कोट किए गए अतिरिक्त प्रीमियम, यदि कोई हो, पर विचार नहीं किया जाएगा; और

- ii) कोयले की घोषित जीसीवी, नीलामी में यथा विनिर्दिष्ट या कोट की गई कोयले की जीसीवी होगी ।

(ख) जहाँ एकीकृत खदान (खदानों), कोयला खदान (विशेष प्रावधान) अधिनियम, 2015 के अधीन आबंटन के माध्यम से आबंटित हैं:

$$\text{जीसीवी समायोजन} = \left[ \frac{\text{(वार्षिक निष्कर्षण लागत / एटीक्यू)} + \text{(खनन प्रभार)}}{\text{(कोयले की घोषित जीसीवी - वर्ष में निष्कर्षित कोयले का भारित औसत जीसीवी)}} \right] \times \left[ \frac{\text{(कोयले की घोषित जीसीवी)}}{\text{(कोयले की घोषित जीसीवी)}} \right]$$

जहाँ,

- i) वार्षिक निष्कर्षण लागत, इस विनियम के विनियम 36च के अनुसार यथा संगणित कोयले की निष्कर्षण की लागत है;
- ii) खनन प्रभार, उत्पादन कंपनी द्वारा नियुक्त खदान विकासकर्ता और प्रचालक को खनन, जहाँ भी लागू हो, के लिए उत्पादन कंपनी द्वारा प्रदत्त कोयले या लिग्नाइट का प्रति टन प्रभार है ।
- iii) कोयले की घोषित जीसीवी, खनन योजना के अनुसार औसत जीसीवी या कोयला नियंत्रक द्वारा यथा अनुमोदित होगी ।

**36त. गैर-टैरिफ आय के कारण समायोजन (एनटीआई समायोजन):** (1) किसी वर्ष के लिए गैर-टैरिफ आय, जैसे कि कोयले की एकीकृत खदान के मामले में वाशरी रेजेक्ट्स की बिक्री से आय और कोल इंडिया लिमिटेड को कोयले की आपूर्ति

से या कोयला खदान (विशेष उपबंध) अधिनियम, 2015 के अधीन यथा स्वीकृत कोयले की मर्चेट बिक्री से लाभ, यदि कोई हो, के कारण समायोजन (एनटीआई समायोजन) निम्नानुसार किया जाएगा:

एनटीआई समायोजन = (वर्ष के दौरान सभी गैर-टैरिफ आय) / (वर्ष के दौरान निष्कर्षित कोयले या लिग्नाइट की वास्तविक मात्रा)

(2) इस विनियम के अनुसार आकलित गैर-टैरिफ आय के कारण समायोजन, कोयला खदान (विशेष प्रावधान) अधिनियम, 2015 के अधीन नीलामी के माध्यम से आबंटित एकीकृत खदान (खदानों) के मामले में लागू नहीं होगा।

**36थ. ऋण समायोजन नोट:** (1) किसी वर्ष के लिए ओबी समायोजन, जीसीवी समायोजन और एनटीआई समायोजन के कारण उत्पन्न ऋण का निपटान, ऋण समायोजन नोट के माध्यम से किया जाएगा।

(2) उस वर्ष के लिए, यथास्थिति, ओबी समायोजन, जीसीवी समायोजन या एनटीआई समायोजन, के कारण ऋण समायोजन नोट, विनिर्दिष्ट अंतिम उपयोगकर्ता उत्पादन केन्द्रों के पक्ष में निम्नानुसार जारी किया जाएगा:

- (i) वर्ष के लिए ओबी समायोजन X उस वर्ष में आपूर्ति की गई कोयले या लिग्नाइट की मात्रा;
- (ii) वर्ष के लिए जीसीवी समायोजन X उस वर्ष में आपूर्ति की गई कोयले या लिग्नाइट की मात्रा; और
- (iii) वर्ष के लिए एनटीआई समायोजन X उस वर्ष में आपूर्ति की गई कोयले या लिग्नाइट की मात्रा।

(3) ऋण समायोजन नोट में राशि को, ऋण समायोजन नोट के जारी होने की तारीख के बाद आपूर्ति की गई कोयले या लिग्नाइट के प्रभारों के मद्दे समायोजित किया जाएगा। एकीकृत खदान (खदानों) ऐसे समायोजन की वार्षिक सामंजस्य विवरण तैयार करेगी और उसे सभी अंतिम उपयोगकर्ता संयंत्रों को प्रस्तुत करेगी और अपनी वेबसाइट पर भी प्रकाशित करेगी।

**36द. गुणवत्ता मापन:** एकीकृत खदान (खदानों) से आपूर्ति कोयले या लिग्नाइट की गुणवत्ता का मापन, कोयला मंत्रालय, भारत सरकार द्वारा विनिर्दिष्ट दिशानिर्देशों और क्रियाविधि के अनुसार तीसरे पक्ष के नमूने के माध्यम से लदाई बिंदु पर किया जाएगा और कोयले की गुणवत्ता के ऐसे मापन के अभिलेख लाभार्थियों को मांग करने पर उपलब्ध करवाए जाएंगे।

**36ध. विशेष उपबंध:** इस विनियम के अध्याय 5 से 8 के उपबंध, अध्याय-9 में विनिर्दिष्ट रूप से उपबंधित या संदर्भित सीमा के सिवाय, एकीकृत खदान (खदानों) के मामले में लागू नहीं होंगे:

परंतु यह कि एकीकृत खदान (खदानों) से कोयले या लिग्नाइट के इनुपट मूल्य के अवधारण के लिए, आवश्यक वित्तीय मानदंड, यदि अध्याय-9 में विनिर्दिष्ट रूप से उपबंधित या संदर्भित नहीं हैं, तो इन्हें कोयले या लिग्नाइट आधारित उत्पादन स्टेशनों पर यथा लागू इस विनियम के उपबंधों के अनुसार माना जाएगा।"

## 17. मूल विनियम के विनियम 59 का संशोधन:

17.1 विद्यमान विनियम 59 को विनियम 59 के खंड (1) के रूप में माना जाएगा और मूल विनियम के विनियम 59 के खंड (1) के बाद, एक नया खंड निम्नानुसार जोड़ा जाएगा:

"(2) जब तक पक्षकारों द्वारा अन्यथा सहमति न हो, फायदाग्राही या दीर्घकालिक ग्राहक द्वारा देय प्रभारों को, सर्वप्रथम बकाया प्रभारों के विलंब से संदाय पर अधिभारों के प्रति और उसके बाद, सबसे लंबे समय तक अतिदेय बिल से आरंभ करते हुए यथास्थिति, उत्पादन कंपनी या पारेषण अनुज्ञप्तिधारी, के मासिक प्रभारों के लिए समायोजित किया जाएगा।"

## 18. मूल विनियम के विनियम 66 का संशोधन:

18.1 मूल विनियम के विनियम 66 के खंड (5) के बाद, एक नया खंड, अर्थात् खंड (6) निम्नानुसार जोड़ा जाएगा:

"(6) जहाँ उत्पादन कंपनी या उसके फायदाग्राही या पारेषण अनुज्ञप्तिधारी और उसके दीर्घकालिक ग्राहक, इस विनियम के खंड (1) से (3) के संदर्भ में, किसी विशेष उत्पादन केन्द्र या पारेषण प्रणाली के संबंध में कम टैरिफ प्रभारित करने के लिए परस्पर सहमत हैं, वहाँ उक्त सहमत टैरिफ को, इस विनियम के अनुसार, पूंजी लागत और अतिरिक्त पूंजी व्यय के आधार पर टूटिंग अप के समय, ऊर्ध्वमुखी पुनरीक्षित नहीं किया जाएगा:

परंतु यह कि जहाँ टूट अप किया गया टैरिफ, सहमत टैरिफ से कम है, वहाँ यथास्थिति, उत्पादन कंपनी या पारेषण अनुज्ञप्तिधारी केवल ऐसे टूट-अप किए गए टैरिफ को प्रभारित करेगा:

परंतु यह और कि सहमत टैरिफ और टूट-अप किए गए टैरिफ के अंतर को, इस विनियम के विनियम 13 के खंड (4) के अनुसार पक्षकारों के बीच व्यवस्थापित किया जाएगा।"

सनोज कुमार झा, सचिव

नोट: (1) केन्द्रीय विद्युत विनियामक आयोग (टैरिफ के निबंधन व शर्तों) विनियम, 2019 दिनांक 3 मई, 2019 के भारत के राजपत्र (असाधारण) के भाग III—खंड 4, सं.144 में प्रकाशित किए गए थे।

(2) केन्द्रीय विद्युत विनियामक आयोग (टैरिफ के निबंधन व शर्तों) (प्रथम संशोधन) विनियम, 2020 दिनांक 3 फरवरी, 2021 के भारत के राजपत्र (असाधारण) के भाग III—खंड 4, सं.53 में प्रकाशित किए गए थे।

**परिशिष्ट Iक**  
**(एकीकृत खदान के लिए अवक्षयण अनुसूची)**

<b>एकीकृत खदान के लिए मूल्यहास अनुसूची</b>		
क्रम सं.	आस्ति विवरण	जीवन वर्षों में
1	पूर्णस्वामित्व वाली भूमि@	999
2	पट्टाधृत भूमि	&&&
3	अस्थायी उन्निर्माण	1
4	एचईएमएम <sup>§</sup>	8
5	रोड़, पुल, पुलिया, हैलिपैड	25
6	प्रमुख संयंत्र बिल्डिंग	30
7	एचईएमएम के अलावा मशीनरी	15
8	जल प्रदाय, जलनिकास और सीवरेज	15
9	फर्नीचर एवं फिक्सचर	15
10	कंप्यूटर के अलावा कार्यालय उपकरण	15
11	हॉस्पिटल उपस्कर	15
12	ईडीपी, डब्ल्यू मशीनें, सैटकॉम एवं संचार उपस्कर	15
13	विद्युतीय संस्थापनाएं	15
14	स्व-चालित वाहन	10
15	कंप्यूटर, सॉफ्टवेयर	3
16	प्रयोगशाला एवं कार्यशाला उपस्कर	15
17	खदान विकास व्यय और मूल्यांकन और अन्वेषण <sup>#</sup>	20 या खदान का जीवन, जो भी निम्नतर हो
18	मूल्यांकन और अन्वेषण <sup>#</sup>	20 या खदान का जीवन, जो भी निम्नतर हो
19	अन्य जो उपर्युक्त में कवर नहीं हैं	15

*	निम्नलिखित आस्तियों के लिए सैल्वेज मूल्य 5% के अलावा होगी – क. आईटी उपस्कर, सॉफ्टवेयर शून्य (0) ख. भूमि के मामले में, शून्य या जो भी राज्य सरकार सहमत हो ग. विशेषीकृत खनन उपस्कर के लिए कारपोरेट कार्य मंत्रालय द्वारा यथा विनिर्दिष्ट घ. खदान विकास व्यय, मूल्यांकन और अन्वेषण शून्य (0)
@	याचिकाकर्ता द्वारा निवेदन यदि पूर्णस्वामित्व वाली भूमि, वापसी के लिए किन्हीं शर्तों से जुड़ी है। यदि हाँ, तो शर्तों और परिस्थितियों को प्रस्तुत करना जिनके बाद भूमि को वापस किया जाना है। ऐसे मामले में, विवरणों के आधार पर भूमि का अवक्षयण किया जाएगा।
&&&	याचिकाकर्ता द्वारा पट्टा-करार / खदान का जीवन / उपयोग करने का अधिकार की अवधि में से निम्नतम का दाखिल किया जाना।

§	प्रत्येक एचईएमएम की लागत के साथ व्यक्तिगत एचईएमएम की सूची को पृथक् रूप से प्रदान किया जाना है।
#	सामान्य अर्थ में खदान विकास व्यय, आर्थिक व्यवहार्यता सुनिश्चित करने और खदान के स्वामी द्वारा खदान के विकास हेतु निर्णय लिए जाने के बाद, खदान को प्रयोग करने योग्य स्थिति में लाने के लिए किया गया व्यय है। इस शीर्ष के अधीन फाइल करते समय, जहाँ तक संभव हो सके, विवरण पृथक् रूप से दिया जाए। मूल्यांकन और अन्वेषण व्यय सामान्यतः स्थलाकृतिक, भूवैज्ञानिक, जियोकेमिकल और भूभौतिकीय अध्ययनों, खोजपूर्ण ड्रिलिंग, ट्रेनिंग, सैंपलिंग करने के द्वारा खनिज की खोज से संबंधित किया गया व्यय, तकनीकी व्यवहार्यता और वाणिज्यिक सक्षमता, अन्वेषण करने के अधिकारों के अर्जन आदि के मूल्यांकन के संबंध में गतिविधियों के लिए व्यय है। इस शीर्ष के अधीन फाइल करते समय, जहाँ तक संभव हो सके, विवरण पृथक् रूप से दिया जाए।

## CENTRAL ELECTRICITY REGULATORY COMMISSION

### NOTIFICATION

New Delhi, the 19th February, 2021

**No.L-1/236/2018/CERC.**—In exercise of powers conferred under clause (s) of sub-section (2) of the section 178 of the Electricity Act, 2003 (36 of 2003) read with Section 61 thereof and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations, to amend the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the Principal Regulations”), namely:-

**1. Short Title and Commencement:** (1) These regulations may be called the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2021.

(2) These regulations shall come into force from the date of notification of these Regulations in official Gazette.

(3) These regulations shall be applicable for the five-year tariff period from 1.4.2019 to 31.3.2024 except amendment in Regulation 6 and Regulation 59 of the Principal Regulations, which shall be applicable from the date of notification of these Regulations in official Gazette.

**2. Amendment to Clause (2) of Regulation 2 of the Principal Regulations:**

2.1 New Clause (1a) shall be added after Clause (1) of Regulation 2 of the Principal Regulations as under:

“(1a) These regulations shall apply in all cases where a generating company has the arrangement for supply of coal or lignite from the integrated mine(s) allocated to it, for one or more of its specified end use generating stations, whose tariff is required to be determined by the Commission under section 62 of the Act read with section 79 thereof.”

**3. Amendment to Regulation 3 of the Principal Regulations:**

3.1 A new clause, namely Clause (4a) shall be inserted after Clause (4) to Regulation 3 of the Principal Regulations, as under:

“(4a) ‘Annual Target Quantity’ or ‘ATQ’ in respect of an integrated mine(s) means the quantity of coal or lignite to be extracted during a year from such integrated mine(s) as specified in the Mining Plan:

Provided that in case the integrated mine(s) of coal or lignite is ready for supply of coal or lignite as per the Mining Plan but is prevented due to reasons not attributable to the generating company, the Commission may relax the Annual Target Quantity up to a maximum of 15% of the quantity of coal or lignite to be extracted during a year as specified in the Mining Plan.”

3.2 In Clause (5) of Regulation 3 of the Principal Regulations, the words “integrated coal mine” at the end part of the first proviso, shall be substituted with the words “integrated mine(s)”;

3.3 Clause (9) of Regulation 3 of the Principal Regulations shall be substituted as under:

“(9) ‘Capital Cost’ means the capital cost as determined in Regulation 19 of these regulations in respect of generating station or transmission system, as the case may be, and Regulation 36D of these regulations in respect of integrated mine(s).”

3.4 At the end of Clause (14) of Regulation 3 of the Principal Regulations, the words “except in case of integrated mine(s)” shall be added.

3.5 Clause (15) of Regulation 3 of the Principal Regulations shall be substituted as under:

“(15) ‘**Date of Commercial Operation**’ or ‘**COD**’ in respect of a thermal generating station or hydro generating station or transmission system or communication system shall have the same meaning as defined in the Grid Code, as amended from time to time:

Provided that Date of Commercial Operation of integrated mine(s) shall have the same meaning as specified in Regulation 5 of these regulations;”

3.6 A new Clause, namely Clause (15b) shall be inserted after Clause (15a) of Regulation 3 of the Principal Regulations as under:

“(15b) ‘**Date of Commencement of Production**’ in respect of integrated mine(s) means the date of touching of coal or lignite, as the case may be, as declared by the generating company;”

3.7 A new Clause, namely Clause (20b) shall be inserted after Clause (20a) of Regulation 3 of the Principal Regulations as under:

“(20b) ‘**Escrow account**’ means the account for deposit and withdrawal of mine closure expenses of integrated mine(s), maintained in accordance with the guidelines issued by the Coal Controller, Ministry of Coal, Government of India;”

3.8 Clause (21) of Regulation 3 of the Principal Regulations shall be substituted as under:

“(21) ‘**Existing Project**’ means the generating station and the transmission system which has been declared under commercial operation on a date prior to 1.4.2019;”

3.9 In Clause (36) of Regulation 3 of the Principal Regulations, the word “lignite” in the first line shall be substituted with the words “the price of lignite (including transfer price of lignite in respect of existing lignite mines)”.

3.10 Two new provisos shall be added after first proviso of Clause (40) of Regulation 3 of Principal Regulations as under:

“Provided further that in respect of the integrated mine(s), funding and timeline for implementation shall be indicated separately and distinctly in the Investment Approval;

Provided further that where investment approval includes both the generating station and the integrated mine(s), the funding and timeline for implementation of the integrated mine(s) shall be worked out and indicated separately and distinctly in the Investment Approval.”

3.11 A new clause, namely Clause (41a) shall be inserted after Clause (41) of Regulation 3 of the Principal Regulations as under:

“(41a) ‘**Loading Point**’ in respect of integrated mine(s) means the location of railway siding or silo or the coal handling plant or such other arrangements like conveyor belt, whichever is nearest to the mine, for despatch of coal or lignite, as the case may be;”

3.12 Two new clauses, namely Clause (43a) and Clause (43b) shall be inserted after Clause (43) of Regulation 3 of the Principal Regulations as under:

“(43a) ‘**Mine Infrastructure**’ shall include assets of the integrated mine(s) such as tangible assets used for mining operations, being civil works, workshops, immovable winning equipment, foundations, embankments, pavements, electrical systems, communication systems, relief centres, site administrative offices, fixed installations, handling arrangements, crushing and conveying systems, railway sidings, pits, shafts, inclines, underground transport systems, hauling systems (except movable equipment unless the same is embedded in land for permanent beneficial enjoyment thereof), land demarcated for afforestation and land for rehabilitation and resettlement of persons affected by mining operations under the relevant law;

(43b) ‘**Mining Plan**’ or ‘**Mine Plan**’ in respect of integrated mine(s) means a plan prepared in accordance with the provisions of the Mineral Concession Rules, 1960, as amended from time to time and approved under clause (b) of sub-section (2) of section 5 of the Mines and Minerals (Development and Rehabilitation) Act, 1957 by the Central Government or by the State Government, as the case may be;”

3.13 The semi colon (;) at the end of Clause (45) of Regulation 3 of the Principal Regulations shall be substituted by colon (: ) and a proviso shall be added under the said clause as under:

“Provided that for integrated mine(s), the Operation & Maintenance Expenses shall not include the mining charge paid to the Mine Developer and Operator, if any, engaged by the generating company and the mine closure expenses.”

3.14 A new clause, namely Clause (46a) shall be inserted after Clause (46) of Regulation 3 of the Principal Regulations as under:

“(46a) ‘**Peak Rated Capacity**’ in respect of integrated mine(s) means the peak rated capacity of the mine, as specified in the Mining Plan;”.

3.15 A new sub-clause, namely (h) shall be added after sub-clause (g) of Clause (73) of Regulation 3 of the Principal Regulations as under:

“(h) Integrated mine(s) As per the Mining Plan”

#### 4. Amendment to Regulation 4 of the Principal Regulations:

4.1 A new clause, namely Clause (4a) shall be added after Clause (4) to Regulation 4 of the Principal Regulations as under:

“(4a) ‘**tonne**’ means a metric tonne of coal or lignite in respect of integrated mine(s);”.

4.2 Clause (5) of Regulation 4 of the Principal Regulations shall be substituted as under:

“(5) ‘**Year**’ means a financial year beginning from 1<sup>st</sup> April and ending on 31<sup>st</sup> March:

Provided that the first year in case of new project or integrated mine(s) shall commence from the date of commercial operation and end on the immediately following 31<sup>st</sup> March.”

#### 5. Amendment to Regulation 5 of the Principal Regulations:

5.1 A new clause, namely Clause (3) shall be added after Clause (2) of Regulation 5 of the Principal Regulations as under:

“(3) The date of commercial operation in case of integrated mine(s), shall mean the earliest of —

- a) the first date of the year succeeding the year in which 25% of the Peak Rated Capacity as per the Mining Plan is achieved; or
- b) the first date of the year succeeding the year in which the value of production estimated in accordance with Regulation 7A of these regulations, exceeds total expenditure in that year; or
- c) the date of two years from the date of commencement of production:

Provided that on earliest occurrence of any of the events under sub-clauses (a) to (c) of Clause (3) of this Regulation, the generating company shall declare the date of commercial operation of the integrated mine(s) under the relevant sub-clause with one week prior intimation to the beneficiaries of the end-use or associated generating station(s):

Provided further that in case the integrated mine(s) is ready for commercial operation but is prevented from declaration of the date of commercial operation for reasons not attributable to the generating company or its suppliers or contractors or the Mine Developer and Operator, the Commission, on an application made by the generating company, may approve such other date as the date of commercial operation as may be considered appropriate after considering the relevant reasons that prevented the declaration of the date of commercial operation under any of the sub-clauses of Clause (3) of this Regulation;

Provided also that the generating company seeking the approval of the date of commercial operation under the preceding proviso shall give prior notice of one month to the beneficiaries of the end-use or associated generating station(s) of the integrated mine(s) regarding the date of commercial operation.”

#### 6. Amendment to Regulation 6 of the Principal Regulations:

6.1 Regulation 6 of the Principal Regulations shall be deleted.

#### 7. Insertion of New Regulation 7A in the Principal Regulations:

7.1 A new Regulation, namely Regulation 7A, shall be inserted after Regulation 7 of the Principal Regulations as under:

“**7A. Supply of Coal or Lignite prior to the Date of Commercial Operation of Integrated Mine:** The input price for supply of coal or lignite from the integrated mine(s) prior to their date of commercial operation shall be:

- (a) in case of coal, the estimated price available in the investment approval, or the notified price of Coal India Limited for the corresponding grade of coal supplied to the power sector, whichever is lower; and

- (b) in case of lignite, the estimated price available in the investment approval or the last available pooled lignite price as determined by the Commission for transfer price of lignite, whichever is lower:

Provided that any revenue earned from supply of coal or lignite prior to the date of commercial operation of the integrated mine(s) shall be applied in adjusting the capital cost of the said integrated mine(s).”

#### **8. Amendment to Regulation 9 of the Principal Regulations:**

8.1 The full stop (.) at the end of Clause (4) of Regulation 9 of the Principal Regulations shall be substituted with colon (: ) and a proviso shall be inserted after the said clause as under:

“Provided that a generating company with integrated mine(s) shall file a petition for determination of input price of coal or lignite from the integrated mine(s) not later than 60 days from the date of commercial operation of the integrated mine(s) or from the date of notification of these regulations, whichever is later and may also seek determination or revision of tariff of the concerned generating station(s) in accordance with these regulations.”

#### **9. Amendment to Regulation 10 of the Principal Regulations:**

9.1 A new clause, namely Clause (1a) shall be inserted after Clause (1) of Regulation 10 of the Principal Regulations as under:

“(1a) The generating company having integrated mine(s) shall file petition before the Commission as per **Annexure-I (Part IV)** to these regulations for determination of the input price of coal or lignite from the integrated mine(s) containing the details of expenditure incurred and projected to be incurred duly certified by the Auditor.”

#### **10. Amendment to Regulation 11 of the Principal Regulations:**

10.1 A new clause, namely Clause (2) shall be added after Clause (1) of Regulation 11 of the Principal Regulations as under:

“(2) The generating company undertaking any additional capitalization in integrated mine(s) on account of change in law events or force majeure conditions may, after intimating the beneficiaries, file petition for in-principle approval for incurring such expenditure, along with underlying assumptions, estimates and justification for such expenditure, if the estimated expenditure exceeds 10% of the admitted capital cost of the integrated mine(s) or Rs.100 crore, whichever is lower;”

#### **11. Amendment to Regulation 13 of the Principal Regulations:**

11.1. A new clause, namely Clause (1a) shall be inserted after Clause (1) of Regulation 13 of the Principal Regulations as under:

“(1a) The input price of coal or lignite from the integrated mine(s) of the generating station(s) for the tariff period 2019-24 shall be trued up for:

- a) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, as allowed by the Commission;
- b) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, on account of Force Majeure and Change in Law, as admitted by the Commission.”
- c) The Operation and Maintenance expenses in accordance with provisions of Regulation 36I.”

11.2. A new clause, namely Clause (4a) shall be inserted after Clause (4) of Regulation 13 of the Principal Regulations as under:

“(4a) After truing up, if the input price already recovered exceeds or falls short of the input price approved by the Commission under these regulations, the excess or the shortfall amount shall be refunded or recovered, as the case may be, by the generating company along with simple interest at the rate equal to the bank rate as on 1<sup>st</sup> April of the respective years of the tariff period in six equal monthly instalments:

Provided that the generating company shall refund such excess amount or recover the shortfall amount from the beneficiaries based on scheduled energy.”

#### **12. Amendment to Regulation 16 of the Principal Regulations:**

12.1. A new proviso shall be added after second proviso of Regulation 16 of the Principal Regulations as under:

“Provided also that in case of supply of coal or lignite from the integrated mine(s), the landed cost of primary fuel shall be based on the input price of coal or lignite, as the case may be, as computed in accordance with these regulations.”

### 13. Amendment to Regulation 22 of the Principal Regulations:

13.1 In Regulation 22 of the Principal Regulations, the word “project” shall be substituted with the words “new projects”.

### 14. Amendment to Title of Chapter-9 of the Principal Regulations:

14.1 The word “COMPUTATION” in title of Chapter-9 of the Principal Regulations shall be substituted with the word “DETERMINATION”.

### 15. Amendment to Regulation 36 of the Principal Regulations:

15.1 In Clause (1) of Regulation 36 of the Principal Regulations, the words “computed in accordance with the regulations to be notified separately by the Commission” shall be substituted with the words “determined in accordance with these regulations”.

15.2 Clauses (2) and (3) of Regulation 36 of the Principal Regulations shall be substituted as under:

“(2) The generating company shall, after the date of commercial operation of the integrated mine(s) till the input price of coal is determined by the Commission under these regulations, adopt the notified price of Coal India Limited commensurate with the grade of the coal from the integrated mine(s) or the estimated price available in the investment approval, whichever is lower, as the input price of coal for the generating station:

Provided that the difference between the input price of coal determined under these regulations and the input price of coal so adopted prior to such determination, for the quantity of coal billed, shall be adjusted in accordance with Clause (4) of this Regulation.

(3) The generating company shall, after the date of commercial operation of the integrated mine(s), till the input price of lignite is determined by the Commission under these regulations, fix the input price of lignite for the generating station at the last available pooled lignite price as determined by the Commission for transfer price of lignite or the estimated price available in the investment approval, whichever is lower:

Provided that the difference between the input price of lignite determined under these regulations and the input price of lignite so fixed prior to such determination, for the quantity of lignite billed, shall be adjusted in accordance with Clause (4) of this Regulation.”

15.3 A new clause, namely Clause (4) shall be added after Clause (3) of Regulation 36 of the Principal Regulations as under:

“(4) In case of excess or short recovery of input price under Clauses (2) or (3) of this Regulation, the generating company shall refund the excess amount or recover the shortfall amount, as the case may be, with simple rate of interest, equal to the bank rate prevailing as on 1<sup>st</sup> April of the respective years of the tariff period, in six equal monthly instalments.”

### 16. Insertion of New Regulations under Chapter 9 of the Principal Regulations:

16.1 The following Regulations (36A to 36P) shall be added after Regulation 36 of the Principal Regulations as under:

**“36A. Input Price of coal or Lignite:** (1) Input price of coal or lignite from the integrated mine(s) shall be determined based on the following components:

- I) Run of Mine (ROM) Cost; and
- II) Additional charges:
  - a. crushing charges;
  - b. transportation charge within the mine up to the washery end or coal handling plant associated with the integrated mine, as the case may be;
  - c. handling charges at mine end;
  - d. washing charges; and
  - e. transportation charges beyond the washery end or coal handling plant, as the case may be, and up to the loading point:

Provided that one or more components of additional charges may be applicable in case of the

integrated mine(s), based on the scope and nature of the mining activities;

Provided further that the input price of lignite shall be computed based on Run of Mine (ROM) based on the technology such as bucket excavator-conveyor or belt-spreader or its combination and handling charges, if any.

(2) Statutory Charges, as applicable, shall be allowed.

**36B. Run of Mine (ROM) Cost:** (1) Run of Mine Cost of coal in case of integrated mine(s) allocated through auction route under Coal Mines (Special Provisions) Act, 2015 shall be worked out as under:

$$\text{ROM Cost} = (\text{Quoted Price of coal}) + (\text{Fixed Reserve Price})$$

Where,

(i) Quoted Price of coal is the Final Price Offer of coal in respect of the concerned coal block or mine, along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement:

Provided that additional premium, if any, quoted by the generating company during auction, shall not be considered in the Run of Mine Cost;

(ii) Fixed Reserve Price is the fixed reserve price per tonne along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement: and

(iii) Capital cost under Regulation 36D and additional capital expenditure under Regulation 36E shall not be admissible for the purpose of ROM cost in respect of integrated mine(s) allocated through auction route.

(2) Run of Mine Cost of coal in case of integrated mine allocated through allotment route under Coal Mines (Special Provisions) Act, 2015 shall be worked out as under:

$$\text{ROM Cost} = [(\text{Annual Extraction Cost} / \text{ATQ}) + \text{Mining Charge}] + (\text{Fixed Reserve Price}).$$

Where,

(i) Annual Extraction Cost is the cost of extraction of coal as computed in accordance with Regulation 36F of these regulations;

(ii) Mining Charge is the charge per tonne of coal paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable; and

(iii) Fixed Reserve Price is the fixed reserve price per tonne along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement.

(3) Run of Mine Cost of lignite in case of integrated mine(s) for lignite shall be worked out as under:

$$\text{ROM Cost} = [(\text{Annual Extraction Cost} / \text{ATQ}) + (\text{Mining Charge})]$$

Where,

(i) Annual Extraction Cost is the cost of extraction of lignite as computed in accordance with Regulation 36F of these regulations; and

(ii) Mining Charge is the charge per tonne of lignite paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable.

(4) The generating company shall adhere to the Mining Plan for extraction of coal or lignite on annual basis and shall submit a certificate to that effect from the Coal Controller or the competent authority:

Provided that deviations from the Mining Plan shall be considered only if such deviations have been approved by the Coal Controller or the revised Mining Plan has been approved by the competent authority.

;

(5) Run of Mine Cost of coal and lignite shall be worked out in terms of Rupees per tonne.

**36C. Additional Charges:** (1) Where crushing or transportation or handling or washing are undertaken by the generating company without engaging Mine Developer and Operator or an agency other than Mine Developer and Operator, additional charges shall be worked out as under:

- (i) Crushing Charges = Annual Crushing Cost/Quantity;
- (ii) Transportation Charges = Annual Transportation Cost/Quantity:

Provided that separate transportation charges, as applicable, shall be considered from mine up to washery end or coal handling plant associated with the integrated mine(s) and beyond washery end or coal handling plant associated with the integrated mine(s) and up to the loading point, as the case may be;

- (iii) Handling charges = Annual Handling Cost/Quantity; and
- (iv) Washing Charges = Annual Washing Cost/Quantity.

Where,

- (a) Annual Crushing Cost, Annual Transportation Cost, Annual Handling Cost and Annual Washing Cost shall be worked out on the basis of following components, for which the generating company shall submit the capital cost separately:
  - (i) Depreciation;
  - (ii) Interest on Working Capital;
  - (iii) Interest on Loan;
  - (iv) Return on Equity;
  - (v) Operation and Maintenance Expenses, excluding mining charge;
  - (vi) Statutory charges, if applicable.
- (b) Quantity shall be the quantity of coal or lignite in tonne crushed or transported or handled or washed, as the case may be, during the year duly certified by the Auditor.

(2) Where crushing, transportation, handling or washing are within the scope of the Mine Developer and Operator engaged by the generating company, no additional charges shall be admitted, as the same shall be recovered through Mining Charge of the Mine Developer and Operator.

(3) Where crushing, transportation, handling or washing are undertaken by the generating company by engaging an agency other than Mine Developer and Operator, the annual charges of such agencies shall be considered as part of the Operation and Maintenance Expenses, provided that the charges have been discovered through a transparent competitive bidding process.

(4) The crushing charges, transportation charges, handling charges, and washing charges shall be admitted by the Commission after prudence check, considering charges of Coal India Limited or similarly placed coal mines or any other reference charges.

(5) The crushing charges, transportation charges, handling charges, and washing charges shall be worked out in terms of Rupees per tonne

**36D. Capital Cost:** (1) The expenditure incurred, including IDC and IEDC, duly certified by the Auditor, for development of the integrated mine(s) up to the date of commercial operation, shall be considered for arriving at the capital cost.

(2) Capital expenditure incurred shall be admitted by the Commission after prudence check.

(3) Capital expenditure incurred on infrastructure for crushing, transportation, handling, washing and other mining activities required for mining operations shall be arrived at separately in accordance with these regulations:

Provided that where crushing, transportation, handling or washing are undertaken by the generating company, the expenditure incurred on infrastructures of these components shall be capitalized;

Provided further that where mine development and operation, with or without any component of crushing, transportation, handling or washing are undertaken by the generating company by engaging Mine Developer and Operator or an agency other than Mine Developer and Operator, the capital expenditure incurred by Mine Developer and Operator or such agency shall not be capitalised by the generating company and shall not be considered for the determination of input price.

(4) The capital expenditure shall be determined by considering, but not limited to, the Mining Plan, detailed project report, mine closure plan, cost audit report and such other details as deemed fit by the Commission.

(5) In case of integrated mine(s) which have declared the date of commercial operation prior to 1.4.2019, the capital expenditure allowed by the Commission for the period ending 31.3.2019 shall form the basis for computation of input price.

**36E. Additional Capital Expenditure:** (1) The expenditure, in respect of the integrated mine(s), incurred or projected to be incurred after the date of commercial operation and upto the date of achieving the Peak Rated Capacity may be admitted by the Commission, subject to prudence check and shall be capitalized in the respective year of the tariff period as additional capital expenditure corresponding to the Annual Target Quantity of the year as specified in the Mining Plan or actual extraction in that year, whichever is higher, on following counts:

- (a) expenditure incurred on activities as per the Mining Plan;
- (b) expenditure for works deferred for execution and un-discharged liabilities recognized for works executed prior to date of commercial operation;
- (c) expenditure for works required to be carried out for complying with directions or orders of any statutory authorities;
- (d) liabilities arising out of compliance of order or decree of any court of law or award of arbitration;
- (e) expenditure for procurement and development of land as per the Mining Plan;
- (f) expenditure for procurement of additional heavy earth moving machineries for replacement, on completion of their useful life; and
- (g) liabilities due to Change in Law or Force Majeure events;

Provided that in case of replacement of any assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization:

Provided further that the generating company shall prepare guidelines for procurement and replacement of heavy mining equipment such as Heavy Earth Moving Machineries and share the same with the beneficiaries and submit it to the Commission along with its petition.

(2) The expenditure, in respect of the integrated mine(s), incurred or projected to be incurred after the date of achieving the Peak Rated Capacity may be admitted by the Commission subject to prudence check, and shall be capitalized as Additional Capital Expenditure, corresponding to the Annual Target Quantity of the respective years as specified in the Mining Plan, on following counts:

- (a) expenditure incurred on activities, if any, as per Mining Plan;
- (b) expenditure for works required to be carried out for complying with directions or order of any statutory authority;
- (c) liabilities arising out of compliance of order or decree of any court of law or award of arbitration;
- (d) expenditure for procurement and development of land as per the Mining Plan; and
- (e) liabilities due to Change in Law or Force Majeure events;

Provided that in case of replacement of any assets, the additional capitalization shall be worked out after adjusting the gross fixed assets, cumulative depreciation and cumulative repayment of loan of the assets replaced on account of de-capitalization.

(3) The expenditure on following counts shall not be considered as additional capital expenditure for the purpose of these regulations:

- a) expenditure incurred but not capitalized as the assets have not been put in service (capital work in progress);
- b) mine closure expenses;
- c) expenditure on works not covered under Mining Plan, unless covered under sub-clause (g) of Clause (1) or sub-clause (e) of Clause (2) of this Regulation;
- d) expenditure on replacement due to obsolescence of assets on account of completion of the

useful life or due to obsolescence of technology, if the original cost of such assets have not been de-capitalised from the gross fixed assets.

**36F. Annual Extraction Cost:** The Annual Extraction Cost of integrated mine(s) shall consist of the following components:

- (i) Depreciation;
- (ii) Interest on Loan;
- (iii) Return on Equity;
- (iv) Operation and Maintenance Expenses, excluding mining charge;
- (v) Interest on Working Capital;
- (vi) Mine closure expenses, if not included in mining charge; and
- (vii) Statutory charges, if applicable.

**36G. Capital Structure, Return on Equity and Interest on Loan:** (1) For integrated mine(s), debt-equity ratio as on the date of commercial operation and as on the date of achieving Peak Rated Capacity shall be considered in the manner as specified under Clause (1) of Regulation 18 of these regulations:

Provided that for integrated mine(s) in respect of lignite with the date of commercial operation prior to 1.4.2019, debt-equity ratio allowed by the Commission for the period ending 31.3.2019 shall form the basis for computation of input price.

(2) For integrated mine(s), debt-equity ratio for additional capital expenditure admitted by the Commission under these regulations shall be considered in the manner as specified under Clause (1) of this Regulation.

(3) Return on equity shall be computed in rupee terms on the equity base arrived under Clause (1) of this Regulation at the base rate of 14%.

(4) The base rate of return on equity as per Clause (3) of this Regulation shall be grossed up with the effective tax rate computed in the manner specified under Regulation 31 of these regulations.

(5) Interest on loan, including normative loan, if any, determined under Clause (1) of this Regulation, shall be arrived at by considering the weighted average rate of interest calculated on the basis of actual loan portfolio, in accordance with Clauses (2) to (7) of Regulation 32 of these regulations.

**36H. Depreciation:** (1) Depreciation in respect of integrated mine(s) shall be computed from the date of commercial operation by applying Straight Line Method:

Provided that depreciation methodology allowed in respect of integrated mine(s) of lignite which have been declared under commercial operation on or before 31.3.2019, shall continue to apply for determination of input price of lignite.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:

Provided that,

- i) freehold land or assets purchased from grant shall not be considered as depreciable assets and their cost shall be excluded from the capital cost while computing depreciable value of the assets;
- ii) where the allotment of freehold land is conditional and is required to be returned, the cost of such land shall be part of value base for the purpose of depreciation, subject to prudence check by the Commission; and
- iii) lease hold land shall be amortized over the lease period or remaining life of the integrated mine(s), whichever is lower.

(3) The salvage value of an asset shall be considered as 5% of the capital cost of the asset:

Provided that the salvage value shall be:

- i) zero for IT equipment and software;
- ii) zero or as agreed by the generating company with the State Government for land; and
- iii) as notified by the Ministry of Corporate Affairs under the Companies Act, 2013 for specialized mining equipment.

(4) Depreciation in respect of integrated mine(s) shall be arrived at annually by applying depreciation rates or on the basis of expected useful life specified in Appendix 1A of these regulations:

Provided that specialized mining equipment shall be depreciated as per the useful life and depreciation rate as notified by the Ministry of Corporate Affairs under the Companies Act, 2013.

**36I. Operation and Maintenance Expenses:** (1) The Operation and Maintenance Expenses in respect of integrated mine(s) shall be allowed as under:

(a) The Operation and Maintenance expenses in respect of integrated mine(s) of coal, for the tariff period ending on 31<sup>st</sup> March 2024 shall be allowed based on the projected Operation and Maintenance Expenses for each year of the tariff period subject to prudence check by the Commission;

Provided that the Operation and Maintenance expenses allowed under this clause shall be trued up based on actual expenses for the tariff period ending on 31<sup>st</sup> March, 2024.

(b) The Operation and Maintenance expenses for the tariff period ending on 31<sup>st</sup> March 2024 in respect of the integrated mine(s) of lignite commissioned on or before 31<sup>st</sup> March 2019, shall be worked out based on the Operation and Maintenance expenses as admitted by the Commission during 2018-19 and escalated at the rate of 3.5% per annum;

(c) The Operation and Maintenance expenses for the tariff period ending on 31<sup>st</sup> March 2024 in respect of the integrated mine(s) of lignite commissioned after 31<sup>st</sup> March 2019, shall be allowed based on the projected Operation and Maintenance Expenses for each year of the tariff period, subject to prudence check by the Commission;

Provided that the Operation and Maintenance expenses allowed under this clause shall be trued up based on actual expenses for the tariff period ending on 31<sup>st</sup> March 2024.

(2) Where the development and operation of the integrated mine(s) is undertaken by the generating company by engaging Mine Developer and Operator, the Mining Charge of such Mine Developer and Operator shall not be included in Operation and Maintenance Expenses under Clause (1) of this Regulation;

(3) Where an agency other than Mine Developer and Operator is engaged by the generating company, through a transparent competitive bidding process, for crushing or transportation or handling or washing or any combination thereof, the annual charges of such agency shall be considered as part of Operation and Maintenance Expenses under clause (1) of this Regulation, subject to prudence check by the Commission.

**36J. Interest on Working Capital:** (1) The working capital of the integrated mine(s) of coal shall cover:

- (i) Input cost of coal stock for 7 days of production corresponding to the Annual Target Quantity for the relevant year;
- (ii) Consumption of stores and spares including explosives, lubricants and fuel @ 15% of operation and maintenance expenses, excluding mining charge of Mine Developer and Operator and annual charges of the agency other than Mine Developer and Operator, engaged by the generating company; and
- (iii) Operation and maintenance expenses for one month, excluding mining charge of Mine Developer and Operator and annual charges of the agency other than Mine Developer and Operator, engaged by the generating company.

(2) The working capital of the integrated mine(s) of lignite shall cover:-

- (i) Input cost of lignite stock for 7 days of production corresponding to the Annual Target Quantity for the year;
- (ii) Consumption of stores and spare including explosives, lubricants and fuel @ 20% of Operation and Maintenance expenses, excluding Mining Charge of Mine Developer and Operator and annual charges of the agency other than Mine Developer or Operator, engaged by the generating company; and
- (iii) Operation and Maintenance expenses for one month, excluding Mining Charge of Mine Developer and Operator and annual charges of the agency other than Mine Developer and Operator, engaged by the generating company.

(3) The rate and payment of interest on working capital shall be determined in accordance with Clauses (3) and (4) of Regulation 34 of these regulations.

**36K. Mine Closure Expenses:** (1) Where the mine closure is undertaken by the generating company, the amount deposited in the Escrow account as per the Mining Plan, after adjusting interest earned, if any, on the said deposits shall be admitted as Mine Closure Expenses:

Provided that,

- a) the amount deposited in the Escrow account as per the Mining Plan prior to the Date of Commercial Operation of the integrated mine(s) shall be indicated separately and shall be recovered over the useful life of the integrated mine(s) in the form of annuity linked to the borrowing rate;
- b) the amount deposited in the Escrow account as per the Mining Plan or any expenditure incurred towards mine closure shall be excluded from the capital cost for computing input price;
- c) where the expenditure incurred towards mine closure falls short of or is in excess of the reimbursement received from the Escrow account during the tariff period 2019-24, the shortfall or excess shall be carried forward to the subsequent years for adjustments.

(2) The amount towards mine closure shall be deposited in the Escrow account as per the Mining Plan and shall be recovered as part of input price irrespective of the expenditure incurred towards mine closure during any of the years of the tariff period.

(3) Where mine closure is within the scope of Mine Developer and Operator engaged by the generating company and mine closure expenses are part of the Mining Charge of Mine Developer and Operator, the mine closure expenses shall be met out of the Mining Charge and no mine closure expenses shall be admissible to the generating company separately:

Provided that,

- a) the amount deposited in the Escrow account by the Mine Developer and Operator or by the generating company and any amount received from the Escrow Account against expenditure incurred towards mine closure shall not be considered for computing input price; and
- b) the difference between the borrowing cost, arrived at by considering the weighted average rate of interest calculated on the basis of actual loan portfolio in accordance with the methodology specified in Regulation 32 of these regulations, and the amount deposited in Escrow account and the interest received from Escrow account in a year shall be adjusted in the input price of coal or lignite of the respective year, as part of mine closure expenses, on case to case basis;

(4) Where the mine closure is within the scope of Mine Developer and Operator engaged by the generating company only for a part of useful life of the integrated mine(s) and the generating company undertakes the mine closure for the balance useful life, the treatment of mine closure during the period undertaken by the generating company shall be in accordance with Clause(1) of this Regulation and mine closure during the period undertaken by the Mine Developer and Operator shall be in accordance with Clause (3) of this Regulation:

Provided that the treatment of mine closure at the end of useful life of the integrated mine(s) shall be decided by the Commission on case to case basis.

(5) The mine closure expenses worked out in accordance with this Regulation shall not be applicable in case of the integrated mine(s) allocated through auction route under Coal Mines (Special Provisions) Act, 2015.

**36L. Determination of Input Price:** (1) The input price of coal or lignite shall be determined as under:

$$\text{Input Price} = [\text{ROM Cost} + \text{Additional charges}]$$

(2) The credit arising on account of adjustment due to shortfall in overburden removal, GCV Adjustment and Non-tariff Income, if any, shall be dealt separately in the manner specified in these regulations.

(3) Statutory Charges, as applicable, shall be allowed.

**36M. Recovery of Input Charges:** (1) The input charges of coal or lignite shall be recovered as under:

$$\text{Input Charges} = [\text{Input Price} \times \text{Quantity of coal or lignite supplied}] + \text{Statutory charges, as applicable};$$

Provided that where energy charge rate based on input price of coal from integrated mine(s) exceeds by 20% of energy charge rate based on notified price of Coal India Limited for the commensurate grade of coal in a month, prior consent of the beneficiary(ies) shall be required to be obtained by the generating company;

Provided further that where such consents of beneficiaries are not available, input price of coal from

such integrated mine(s) shall be so fixed that energy charge rate based on input price of coal from integrated mine(s) does not exceed by more than 20% the energy charge rate based on notified price of Coal India Limited for the commensurate grade of coal in a month;

Provided also that energy charge rate based on input price of coal does not lead to higher energy charge rate throughout the tenure of power purchase agreement than that which would have been obtained as per terms and conditions of the existing power purchase agreement.

(2) The generating company shall work out the comparative energy charge rate based on the input price of coal and notified price of Coal India Limited for the commensurate grade of coal for every month from the date of commercial operation of integrated mine(s) and share the same with beneficiaries.

**36N. Adjustment on account of Shortfall of Overburden Removal (OB Adjustment):** (1) The generating company shall remove overburden as specified in the Mining Plan.

(2) In case of shortfall of overburden removal during a year, the generating company shall be allowed to adjust such shortfall against excess of overburden removal, if any, during subsequent three years.

(3) In case of excess of overburden removal during a year, the generating company shall be allowed to carry forward such excess for adjustment against the shortfall, if any, during subsequent three years.

(4) Where the shortfall of overburden removal of any year is not made good by the generating company in accordance with Clause (2) of this Regulation, the adjustment on account of shortfall of overburden removal (OB Adjustment) for that year shall be worked out as under:

$$\text{OB Adjustment} = \frac{\text{[Factor of adjustment for shortfall of overburden removal during the year]} \times \text{[Mining Charge during the year + Operation and Maintenance expenses during the year]}}{\text{[Actual quantity of coal or lignite extracted during the year} \times \text{Annual Stripping Ratio as per Mining Plan] - (Actual quantity of overburden removed during the year/ Annual Stripping Ratio as per Mining Plan)}/ \text{Annual Target Quantity}};$$

Where,

- i) Factor of adjustment for shortfall of overburden removal during the year shall be computed as under:
 
$$\frac{\text{[(Actual quantity of coal or lignite extracted during the year} \times \text{Annual Stripping Ratio as per Mining Plan] - (Actual quantity of overburden removed during the year/ Annual Stripping Ratio as per Mining Plan)}}{\text{Annual Target Quantity}};$$
- ii) Annual Stripping ratio is the ratio of volume of overburden to be removed for one unit of coal or lignite as specified in the Mining Plan.
- iii) Mining Charge is the charge per tonne of coal or lignite paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable.
- iv) Mining Charge and Operation and Maintenance expenses shall be in terms of Rupees per tonne corresponding to the Annual Target Quantity.

(5) The provisions of this Regulation regarding adjustment on account of shortfall of overburden removal shall not be applicable in case of the integrated mine(s) allocated through auction route under Coal Mines (Special Provisions) Act, 2015.

**36O. Adjustment on account of shortfall in GCV (GCV Adjustment):** (1) In case the weighted average GCV of coal extracted from the integrated mine(s) in a year is higher than the declared GCV of coal for such mine(s), no GCV adjustment shall be allowed.

(2) In case the weighted average GCV of coal extracted from the integrated mine(s) in a year is lower than the declared GCV of coal of such mine(s), the GCV adjustment in that year shall be worked out as under:

(a) Where the integrated mine(s) are allocated through auction route under Coal Mines (Special Provisions) Act, 2015:

$$\text{GCV Adjustment} = \frac{\text{(Quoted Price of coal + Fixed Reserve Price)} \times \text{[(Declared GCV of coal - Weighted Average GCV of coal extracted in the year)/(Declared GCV of coal]}}{\text{}};$$

Where,

- i) Quoted Price of coal is the Final Price Offer of coal in respect of the concerned coal Block or Mine, along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement:

Provided that additional premium, if any, quoted by the generating company in auction, shall not be considered; and

ii) Declared GCV of coal shall be the GCV of coal as specified or quoted in the auction.

(b) Where the integrated mine(s) are allocated through allotment route under Coal Mines (Special Provisions) Act, 2015:

$$\text{GCV Adjustment} = [(\text{Annual Extraction Cost/ATQ}) + (\text{Mining Charge})] \times [(\text{Declared GCV of coal} - \text{Weighted Average GCV of coal extracted in the year}) / (\text{Declared GCV of coal})]$$

Where,

- i) Annual Extraction Cost is the cost of extraction of coal as computed in accordance with Regulation 36F of these regulations;
- ii) Mining Charge is the charge per tonne of coal paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable; and
- iii) Declared GCV of coal shall be the average GCV as per the Mining Plan or as approved by the Coal Controller.

**36P. Adjustment on account of Non-tariff income (NTI Adjustment):** (1) Adjustment on account of non-tariff income (NTI Adjustment) for any year, such as income from sale of washery rejects in case of integrated mine of coal and profit, if any, from supply of coal to the Coal India Limited or merchant sale of coal as allowed under the Coal Mines (Special Provisions) Act, 2015 shall be worked out as under:

$$\text{NTI Adjustment} = \frac{\text{All Non-tariff income during the year}}{\text{Actual quantity of coal or lignite extracted during the year}}$$

(2) The adjustment on account of non-tariff income worked out in accordance with this Regulation shall not be applicable in case of the integrated mine(s) allocated through auction route under Coal Mines (Special Provisions) Act, 2015.

**36Q. Credit Adjustment Note:** (1) The credit arising on account of OB Adjustment, GCV Adjustment and NTI Adjustment shall be dealt through Credit Adjustment Note for any year.

(2) The Credit Adjustment Note shall be issued in favour of the specified end use generating stations on account of OB Adjustment, GCV Adjustment or NTI Adjustment, as the case may be, for that year as under:

- (i) OB Adjustment for the year X Quantity of coal or lignite supplied in that year;
- (ii) GCV Adjustment for the year X Quantity of coal or lignite supplied in that year; and
- (iii) NTI Adjustment in the year X Quantity of coal or lignite supplied in that year.

(3) The amount in Credit Adjustment Note shall be adjusted against the charges of coal or lignite supplied after the date of issue of Credit Adjustment Note. The integrated mine(s) shall prepare an annual reconciliation statement of such adjustment and furnish the same to all the end use plants and also publish the same on its website.

**36R. Quality Measurement:** The quality of coal or lignite supplied from the integrated mine(s) shall be measured at the loading point through third party sampling as per the guidelines and procedure specified by the Ministry of Coal, Government of India and records of such measurement of quality of coal shall be made available to the beneficiaries on demand.

**36S. Special Provision:** Provisions of Chapters 5 to 8 of these regulations shall not be applicable in case of integrated mine(s), except to the extent specifically provided for or referred to in Chapter-9:

Provided that the financial parameters required for determination of input price of coal or lignite from integrated mine(s), if not specifically provided for or referred to in Chapter-9, shall be considered as per provisions of these regulations as applicable to the coal or lignite based generating stations”.

## 17. Amendment to Regulation 59 of the Principal Regulations:

17.1. The existing Regulation 59 shall be treated as Clause (1) of Regulation 59 and a new Clause shall be added after Clause (1) of Regulation 59 of the Principal Regulations as under:

“(2) Unless otherwise agreed by the parties, the charges payable by a beneficiary or long term customer shall be first adjusted towards late payment surcharge on the outstanding charges and thereafter, towards monthly charges billed by the generating company or the transmission licensee, as the case may be, starting from the longest overdue bill.”

### 18. Amendment to Regulation 66 of the Principal Regulations:

18.1 A new clause, namely Clause (6), shall be added after Clause (5) of Regulation 66 of the Principal Regulations as under:

“(6) Where a generating company and its beneficiaries or a transmission licensee and its long-term customers have mutually agreed to charge lower tariff in respect of a particular generating station or transmission system in terms of Clauses (1) to (3) of this Regulation, the said agreed tariff shall not be

revised upwards at the time of truing up based on the capital cost and additional capital expenditures in accordance with these regulations:

Provided that where the trued up tariff is lower than the agreed tariff, the generating company or the transmission licensee shall charge such trued-up tariff only:

Provided further that the difference between the agreed tariff and the trued-up tariff shall be settled between the parties in accordance with Clause (4) of Regulation 13 of these regulations.”

SANOJ KUMAR JHA, Secy.

[ADVT.-III/4/Exty./257/2021-22]

**Note:** (1) The Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 were published in Part III- Section 4, No.144 of the Gazette of India (Extraordinary) dated May 3, 2019.

(2) The Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2020 were published in Part III- Section 4, No.53 of the Gazette of India (Extraordinary) dated Feb 3, 2021.

### Appendix IA (Depreciation Schedule for Integrated Mine)

DEPRECIATION SCHEDULE FOR INTEGRATED MINE		
Sr No	Asset Particulars	Life in Years
1	Land Freehold@	999
2	Land Leasehold	&&&
3	Temporary erections	1
4	HEMM <sup>s</sup>	8
5	Roads, bridges, culverts, helipads	25
6	Main Plant Buildings	30
7	Machinery other than HEMM	15
8	Water Supply, Drainage and sewerage	15
9	Furniture and Fixtures	15
10	Office equipment/s other than computers	15
11	Hospital equipment(s)	15
12	EDP, WP machines, SATCOM & communication equipment	15
13	Electrical installations	15
14	Self propelled vehicles	10
15	Computers, Software	3
16	Laboratory & workshop equipment	15
17	Mine Development Expenses and Evaluation and exploration <sup>#</sup>	20 or life of mine, whichever is lower
18	Evaluation and Exploration <sup>#</sup>	20 or life of mine, whichever is lower
19	Others not covered above	15

*	Salvage Value shall be other than 5% for following assets - a. IT Equipment, software Zero(0) b. Zero or as agreed with state Government in case of land c. For specialized mining equipment as specified by Ministry of Corporate affairs d. Mine Development expenses, Evaluation and Exploration Zero (0)
@	Petitioner to submit if the Freehold Land is attached with any conditions for return. If yes to submit the conditions and period after which the land is to be returned. In such case the land shall be depreciable based on such details.
&&&	To be filled by petitioner, least of lease agreement/mine life/right to use period
\$	List of individual HEMM with cost of each HEMM be provided separately
#	In generic sense Mine Development Expenditure is the expenditure incurred to bring the mine in usable condition after ensuring the economic viability and decision is taken by Mine Owner to develop the mine. While filling under this head details to the extent feasible are to be given separately. Evaluation and exploration expenditure is generally the expenditure incurred associated with finding the mineral by carrying out topographical, geological, geochemical and geophysical studies, exploratory drilling, trenching, sampling, expenditure for activities in relation to evaluation of technical feasibility and commercial viability, acquisition of rights to explore etc. While filling under this head details to the extent feasible are to be given separately.

## ANNEXURE-B

No. 13016/29/2003-CA-I  
Government of India  
Ministry of Coal

ANNEXURE I

New Delhi, dated the 25<sup>th</sup> January, 2006.

To

✓ The Chairman-cum-Managing Director,  
National Thermal Power Corporation Limited,  
NTPC Bhawan,  
SCOPE Complex, Lodhi Road,  
New Delhi - 110 003.

Subject : Allocation of Kerandari, Chatti Bariatu in North Karanpura coalfield in Jharkhand, Chhatrasal in Singrauli coalfield in Madhya Pradesh and Dulanga in Ib valley coalfield in Orissa for mining of coal for their Power Plants to M/s. National Thermal Power Corporation (NTPC).

Sir,

I am directed to refer to your letter No. 01/FM &MO/Coal Mining/006-623 dated 01.03.2005 and to state that the Central Government, after considering your request, has decided to allocate the four coal blocks viz., Kerandari (229 mt.), Chatti Bariatu (243 mt.) in North Karanpura coalfield in Jharkhand, Chhatrasal (150 mt.) in Singrauli coalfield in Madhya Pradesh and Dulanga (260 mt.) in Ib valley coalfield in Orissa for mining of coal for exclusive use in your specified proposed Power Plants (details of location, capacity, coal requirement and schedule for commissioning of each associated power plant to be provided by NTPC). This allocation is in pursuance of the provisions contained in Section 3(3) (a)(iii) of the Coal Mines (Nationalisation) Act, 1973. The allocation of these blocks is subject to the following conditions:

- i) The allocation of the 4 blocks to M/s. NTPC has been made to meet the coal requirement of the following Power projects.

<u>Coal Block</u>	<u>Power Project/location Name / Capacity</u>	<u>Coal requirement (mtpa)</u>
Kerandari		
Chatti Bariatu		
Chhatrasal		
Dulanga		

(Details to be provided by NTPC)

संदीप गुप्ता / SANDEEP GUPTA  
अवर सचिव / Under Secretary  
कोयला मंत्रालय / Ministry of Coal  
नई दिल्ली / Govt. of India  
New Delhi-110001

M/s. NTPC shall provide the above details within 15 days of the date of issue of this letter.

Sanjiv

SANJIV KUMAR SINGH  
Recognised Qualified Person  
No. 34011/(15)/2009-CPAM

# ANNEXURE-C

Allotment Order for Dulanga Coal Mine

Government of India

Ministry of Coal

O/o the Nominated Authority

World Trade Tower, New Delhi

Office of the nominated authority constituted under section 6 of the Coal Mines (Special Provisions) Act, 2015.

**Allotment order under clause (c) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13**

In re: **Dulanga Coal Mine** (the "mine") particulars of which is specified in **Annexure 1**

Order no.: 103/32/2015/NA

Date: September 08, 2015

In favour of: **NTPC Limited** incorporated in India under the Companies Act, 1956 with corporate identity number L40101DL1975GOI007966, whose registered office is at NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi – 110003, India (the "Allottee").

For utilisation in: End Use Plant situated at Dist. Sudergarh, Odisha, as more particularly described below (the "End Use Plant")

S. No.	Name of Specified End Use Plant	Address	Configuration	Capacity
1	Darlipalli-I	Dist. Sudergarh, Odisha	2 x 800 MW	1600 MW

\*MW stands for Mega Watt

WHEREAS, the nominated authority has, in accordance with the provisions of the Coal Mines (Special Provisions) Act, 2015 (the "Act") and the Coal Mines (Special Provisions) Rules, 2014 (the "rules") conducted the allotment of the mine;

AND WHEREAS the allottee is eligible to receive this allotment order with respect to the mine as described in this allotment order, including, inter-alia -

- the coal bearing land acquired by the prior allottee and the lands, in or adjacent to the coal mines used for coal mining operations acquired by the prior allottee; and
- any existing mine infrastructure as defined in clause (j) of sub-section (1) of section 3 of the Act.



AND WHEREAS the allottee was also the prior allottee of such Schedule I coal mine;

AND WHEREAS, the allottee has deposited the additional levy payable under sub-section (3) of section 5 of the Act on or prior to the due date specified under rule 18 of the rules;

AND WHEREAS the allottee has furnished a performance bank guarantee dated April 28, 2015 for an amount equal to INR 1,38,60,00,000 (Indian Rupees One Hundred Thirty Eight Crore and Sixty Lakh) issued by State Bank of India in accordance with the allotment document read with sub-section (6) and sub-section (12) of sections 8 of the Act and sub-rule (4) rule 13 of the rules;

AND WHEREAS the allottee has entered into an Allotment Agreement dated March 30, 2015 (as amended) with the nominated authority in accordance with the provisions of sub-rule (5) of rule 13.

NOW, THE NOMINATED AUTHORITY DOES ORDER:

1. On and from September 08, 2015 ("allotment date") and in accordance with sub-section (4) of section 8 read with sub-section (12) section 8 of the Act, with respect to the mine, the following shall stand fully and absolutely transferred and vested in the allottee, namely: -

- (a) all the rights, title, interest and liabilities as were available to the prior allottee;
- (b) entitlement to a mining lease to be granted by the State Government with the terms and conditions of the Allotment Agreement forming a part of it on making an application;
- (c) all statutory licences, permits, permissions, approvals or consents as per rules, required to undertake coal mining operations in the mine, if already issued by the Central Government, to the prior allottee on the same terms and conditions as were applicable to the prior allottee, as listed in the **Annexure 2**;
- (d) entitlement to any statutory licence, permit, permission, approval or consent required to undertake coal mining operations in the mine, if already issued by the Central Government, to the prior allottee on making an application on the same terms and conditions as were applicable to the prior allottee, as listed in the **Annexure 3**;
- (e) entitlement to any statutory licence, permit, permission, approval or consent required to undertake coal mining operations in the mine, if already issued by the State Government, to the prior allottee on making an application on the same terms and conditions as were applicable to the prior allottee, as listed in the **Annexure 4**;
- (f) rights appurtenant to the approved mining plan of the prior allottee;
- (g) in the event the secured creditor elects to continue the facility arrangements and security interest, the Allottee shall continue the credit or banking facilities or other lending arrangements to which the prior allottee was a party in terms of clause (a) of sub-section (1) of section 12 of the Act;



2. The Allottee may seek any change in the terms and conditions attached to such licence, permit, permission, approval or consent by making an application in accordance with applicable laws;
- 3 This Allotment order is liable to be cancelled in accordance with the provisions of sub-rule (6) of rule 13.



(By the nominated authority)

## Annexures

## Annexure 1: Particulars of the mine

## Part A – Description of the mine

<b>Name of Coal Mine</b>	<b>Dulanga</b>
<b>Latitude</b>	21°55'37" N to 21°56'43" N
<b>Longitude</b>	83°47'28" E to 83°49'05" E
<b>Coalfield</b>	Ib Valley
<b>Villages</b>	Dulinga, Majhapara, Beldihi, Kathpali, Khuntirjharia, Khapri Kachchar
<b>District</b>	Sundergarh
<b>State</b>	Odisha



**Part B – Description of Land in relation to the mine****Type of Land:** Freehold Land for Mining as per Mining Lease

Nil

**Type of Land:** Leasehold Land for Mining as per Mining Lease

Nature	Area (Hectares)
Government Land	-
Private Land	-
Forest Land	-

**Type of Land:** Leasehold Land - Any other land for mine infrastructure as defined in section 3(1) (j) of the Act

Nature	Area (Hectares)
Government Land	0.69
Private Land	-
Forest Land	-



**Part C – Description of Mine Infrastructure in relation to the mine****C1- Mine Infrastructure: Immovable Assets**

Nil

**C2- Mine Infrastructure: Land for Compensatory Afforestation****Type of Land:** Freehold Land for Compensatory Afforestation

Nil

**Type of Land:** Leasehold Land for Compensatory Afforestation

Nature	Area (Hectares)
Government Land	-
Private Land	-
Forest Land	-

**C3- Mine Infrastructure: Resettlement and Rehabilitation Land****Type of Land:** Resettlement and Rehabilitation Freehold Land

Nil

**Type of Land:** Resettlement and Rehabilitation Leasehold Land

Nature	Area (Hectares)
Government Land	-
Private Land	-
Forest Land	-



**Annexure 2: Particulars of statutory licences, permits, permissions, approvals or consents issued by the Central Government which are being transferred along with this Allotment Order.**

S. No	Statutory Clearance	Ministry/ Agency	Letter No.	Date
1.	Approval of a) <b>Mining Plan</b> Mining Plan (February, 2009)	Ministry of Coal	No.13016/29/2003- CA-I (Vol-II)	30.07.2009
	b) <b>Revised Mining Plan</b> <b>including Mine Closure</b> <b>Plan (1st Revision) (April</b> <b>2012)</b>		No.13016/27/2012- CA-I	14.08.2012



**Annexure 3: Particulars of statutory licences, permits, permissions, approvals or consents issued by the Central Government to be obtained on application by the Allottee.**

S. No	Statutory Clearance	Ministry/ Agency	Letter No.	Date
1.	Environment Clearance <i>Dulanga Opencast coal mining project (7 MTPA in an area of 785.37 ha)</i>	Ministry of Environment and Forests	No. J-11015/1140/2007-IA.II(M)	03.03.2014
2.	Forest Clearance – Stage 1	Ministry of Environment and Forests	F. No. 8-23/2013-FC	10.01.2014



**Annexure 4: Particulars of statutory licences, permits, permissions, approvals or consents issued by the State Government to be obtained on application by the Allottee.**

S. No	Statutory Clearance	Ministry/ Agency	Letter No.	Date
1.	Consent to establish	State Pollution Control Board, Odisha	No. 23564/Ind-II-NOC-5346	27.11.2012



## ANNEXURE-D

EXTRACTS FROM THE MINUTES OF 441<sup>ST</sup> MEETING OF THE BOARD OF DIRECTORS HELD ON THURSDAY 5<sup>TH</sup> JANUARY 2017

Item No.441.2.1      **Proposal for Investment Approval for Dulanga Coal Mining Project, Rated Production Capacity of 7 MTPA**

XX	XX	XX	XX	XX	XX
XX	XX	XX	XX	XX	XX

The Board passed the following resolution :

Resolved that the Investment Approval for Dulanga Coal Mining Project (7 Million Tonnes Per Annum) at SBI Capital Market Ltd. (SBI Caps) appraised Current Estimated Cost of Rs.1053.41 Crore including Interest During Construction (IDC) & Financing Charges (FC) of Rs. 52.83 Crore and Working Capital Margin money(WCM) of Rs 7.71 Crore as of IIIrd Quarter '2016 price level and corresponding Indicative Estimated Completed Cost of Rs. 1138.63 Crore including IDC & FC of Rs. 53.11 Crore and WCM of Rs. 7.71 Crore for NTPC investment under outsourcing mode of operation, as per the memorandum submitted before the Board of Directors, be and is hereby approved.

Further resolved that the Chairman & Managing Director be and is hereby authorised to approve any subsequent updation in the cost estimates as well as the changes that may be required to be carried out based on comments of the agencies according statutory clearances.

\*\*\*\*\*

*Arjun*

**INTER OFFICE MEMO****FROM: Company Secretary****TO: Shri Partha Mazumder  
ED (Coal Mining)****REF NO. : 01:SEC:BM:8****DATED : 2.7.2020****SUBJECT : Revision of Land, Assets and R&R cost in Rehabilitation Action Plan of Dulanga Coal Mining Project**

---

Please find enclosed extracts from the Minutes of 485<sup>th</sup> Meeting of the Board of Directors held on 27<sup>th</sup> June, 2020 on the above subject for your information and necessary action.

A handwritten signature in blue ink, reading 'Nandini Sarkar', is written over a horizontal line.

**(Nandini Sarkar)****Encl.: As above**

**EXTRACTS FROM THE MINUTES OF 485<sup>th</sup> MEETING OF THE BOARD OF DIRECTORS HELD ON SATURDAY, 27<sup>th</sup> JUNE, 2020**

**Item no. 485.2.5      Revision of Land, Assets and R&R cost in Rehabilitation Action Plan of Dulanga Coal Mining Project**

XX   XX  
XX   XX   XX   XX   XX   XX   XX   XX   XX   XX   XX   XX

The Board, after discussion, passed the following resolution:

Resolved that the enhancement of cost provisions for Land & Assets and R&R in the Rehabilitation Action Plan of Dulanga Coal Mining Project, involving an additional tentative financial expenditure of Rs. 260.45 Crore, as broadly detailed in the Memorandum placed before Board, be and is hereby approved.

Further resolved that the Chairman & Managing Director be and is hereby authorized to approve any subsequent updation in the cost estimates as well as the changes that may be required to be carried out, based on comments of agencies according statutory clearances.

\*\*\*\*\*

*Nandini Sorker*



# ANNEXURE-E

**एन टी पी सी लिमिटेड**  
(भारत सरकार का उद्यम)  
**NTPC Limited**  
(A Govt. of India Enterprise)  
(Formerly National Thermal Power Corporation Ltd.)

120

केन्द्रीय कार्यालय/Corporate Centre

Ref No: CS-7015-602(R1)-9-CS-LOA-6538

Date: 09.02.2017

To,

**M/s. Sainik Mining And Allied Services Limited,  
7th Floor, Corporate Tower, Ambience Mall,  
NH-8,Gurgaon-122 001  
Kind Attn.: Sh. Chandra Datt, General Manager-BD**

**Sub.: Letter of Acceptance for Development and Operation of Dulanga  
Coal Mining Block; Bid Document No. CS-7015-602(R1)-9)**

Dear Sir,

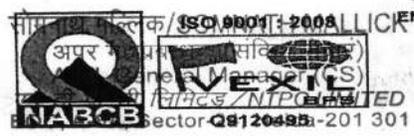
1.0 This has reference to the following:

- (i) Our online Bid Invitation No 40051319 dated 22.01.2016 issuing therewith the RFP Documents (BID Document No. CS-7015-602(R1)-9) to you and inviting bids for the subject package.
- (ii) Following Amendments/Errata and Clarifications to the Bidding Documents:
  - a) Amendment No:1 to Bid Document bearing document No CS-7015-602(R1)-9-AMDT-01
  - b) Amendment No:2 to Bid Document bearing document No CS-7015-602(R1)-9-AMDT-02
  - c) Amendment No:3 to Bid Document bearing document No CS-7015-602(R1)-9-AMDT-03
  - d) Clarification No. 1(PART A) & Clarification No. 1(PART B) to Bid Document bearing document No CS-7015-602(R1)-9-CLRF-01
  - e) Clarification No. 2 to Bid Document bearing document No CS-7015-602(R1)-9-CLRF-02
  - f) Clarification No. 3 to Bid Document bearing document No CS-7015-602(R1)-9-CLRF-03
  - g) Clarification No. 4 to Bid Document bearing document No CS-7015-602(R1)-9-CLRF-04
  - h) Clarification No. 5 to Bid Document bearing document No CS-7015-602(R1)-9-CLRF-05

S. Maurice

For Sainik Mining And Allied Services

S. Maurice



अभियांत्रिकी कार्यालय परिसर, प्लॉट नं. ए - ८ ए, सेक्टर २४, पोस्ट बॉक्स नं. १३, नोएडा (उ.प्र.), पिन: २०१३०१  
ENGINEERING OFFICE COMPLEX, Plot No. A-8A, Sector-24, Post Box No. 13, NOIDA (U.P.), Pin: 201301  
कॉरपोरेट पहचान नंबर: एल. ४०११ डी. एल. १९७५ जी. ओ. आई. ००७९६६, वेबसाइट: www.ntpc.co.in  
Corporate Identification Number : L40101DL1975GOI007966, Website: www.ntpc.co.in  
टेलीफोन नं.: ०१२०-२४१०३३३ (१० लाईने), ०१२०-२४१०११६ (५ लाईने), फैक्स: ०१२०-२४१०१३६, ०१२०-२४१०१३७  
Telephone No.: 0120-2410333 (10 Lines), 0120-2410116 (5-Lines), Fax: 0120-2410136, 0120-2410137  
पंजीकृत कार्यालय : एन.टी.पी.सी. भवन, स्कोप कॉम्प्लेक्स, ७ इंस्टीट्यूशनल एरिया, लोदी रोड, नई दिल्ली - ११०००३  
Head Office: NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003

Ref No: CS-7015-602(R1)-9-CS-LOA-6538

Date: 09.02.2017

- i) Errata No.01 to Bid Document bearing document No CS-7015-602(R)-9-ERRATA-01
- j) Errata No.2 to Bid Document bearing document No CS-7015-602(R)-9-ERRATA -02
- k) Errata No.3 to Bid Document bearing document No CS-7015-602(R)-9-ERRATA -03
- l) Errata No.4 to Bid Document bearing document No CS-7015-602(R)-9-ERRATA -04
- m) Errata No.5 to Bid Document bearing document No CS-7015-602(R)-9-ERRATA -05
- (iii) Your online Bid No. 60157350 for the subject package comprising of both Techno Commercial Proposal (Opened on 27.04.2016) and Price Proposals (opened on 03.10.2016 & online reverse auction on 19.10.2016).
- (iv) NTPC letter/e-mail dated 18.05.2016 seeking clarifications to Techno Commercial Proposal.
- (v) Clarification furnished vide your letter dated 18.05.2016 in response to NTPC's e-mail dated 18.05.2016.
- (vi) NTPC e-mail dated 25.05.2016 inviting you for Post Bid Discussions to be held on 30.05.2016
- (vii) NTPC letter/e-mail dated 14.06.2016 seeking clarifications to Techno Commercial Proposal.
- (viii) Your e-mail dated 19.07.2016 vide furnishing clarification.
- (ix) Minutes of Post Bid Discussions held on 30.05.2016 (enclosed at Annexure-I).
- (x) NTPC e-mail/letter dated 29.08.2016 regarding Opening of Price Proposals & Reverse Auction for subject package 01.09.2016.
- (xi) NTPC e-mail dtd. 31.08.2016 regarding postponement of scheduled opening of Price Proposal & online Reverse-Auction.

*P. Manik*

2



अभियांत्रिकी कार्यालय परिसर, प्लाट न. ए - ८ ए, सेक्टर २४, पोस्ट बॉक्स नं. १३, नोएडा (उ.प्र.), पिन: २०१३०  
 ENGINEERING OFFICE COMPLEX, Plot No. A-8A, Sector-24, Post Box No. 13, NOIDA (U.P.), Pin: 201300  
 कॉर्पोरेट पहचान नंबर: एल. ४०१०१ डी. एल. १९७५ जी. ओ. आई. ००७९६६, वेबसाइट: www.ntpc.co.in  
 Corporate Identification Number : L40101DL1975GOI0079866, Website: www.ntpc.co.in  
 टेलीफोन नं.: ०१२०-२४१०३३३ (१० लाईनें), ०१२०-२४१०१६६ (५ लाईनें), फैक्स: ०१२०-२४१०३३३, ०१२०-२४१०३३६  
 Telephone No.: 0120-2410333 (10 Lines), 0120-2410116 (5-Lines), Fax: 0120-2410136, 0120-2410137  
 पंजीकृत कार्यालय : एन.टी.पी.सी. भवन, स्कोप कॉम्प्लेक्स, ७ इंस्टीट्यूशनल एरिया, लोदी रोड, नई दिल्ली - ११०००३  
 Regd. Office: NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003  
 Authorised Signatory

Ref No: CS-7015-602(R1)-9-CS-LOA-6538

Date: 09.02.2017

- (xii) NTPC e-mail dated 30.09.2016 regarding Opening of Price Proposals & Reverse Auction for subject package on 03.10.2016.
- (xiii) NTPC e-mail dtd. 03.10.2016 regarding postponement of online Reverse-Auction for subject package.
- (xiv) NTPC e-mail dated 18.10.2016 regarding schedule of online Reverse Auction for subject package on 19.10.2016.
- (xv) The final price schedule, having item wise price break up for all the items in the prescribed format / price break, submitted by you in line with the provisions mentioned at 13.1 (J) of ITB, vide email dated 19.10.2016 after completion of Reverse auction on 19.10.2016.
- (xvi) NTPC e-mail dtd. 06.10.2016 regarding seeking extension of bid validity for two months from 26.10.2016 upto 25.12.2016 and extension of validity of Bank Guarantee up to 08.02.2016.
- (xvii) Your letters dated 15.10.2016 vide which you have extended the validity of your Project Proposal up to 25.12.2016 & extension of validity of Bank Guarantee up to 08.02.2017.
- (xviii) NTPC e-mail dtd. 01.12.2016 regarding seeking extension of bid validity for two months from 25.12.2016 upto 24.02.2017 and extension of validity of Bank Guarantee up to 08.04.2017.
- (xix) Your letters dated 05.12.2016 vide which you have extended the validity of your Project Proposal up to 24.02.2017 & confirmation for extension of validity of Bank Guarantee up to 08.04.2017.
- (xx) NTPC e-mail dtd. 27.01.2017 regarding seeking extension of bid validity for two months from 24.02.2017 upto 23.04.2017 and extension of validity of Bank Guarantee up to 08.06.2017.
- (xxi) Your letters dated 30.01.2017 vide which you have extended the validity of your Project Proposal up to 24.04.2017.

2.0 In terms of Clause 6.4.3 of Vol-I of BID Documents , we hereby convey our acceptance to your Project Proposal submitted for the subject package read in conjunction with agreed Minutes of Meeting referred at Para 1.0 (ix) and award the subject package on you as per the details below:

- (i) The total Mining fee of **INR 6004,52,20,000.00 (Indian Rupees Six Thousand Four Crores, Fifty Two Lacs, Twenty Thousand only)** which is inclusive of Expenditure towards Construction of R&R Colony of **INR 111,90,00,000.00**

सोमनाथ मल्लिक/SOMNATH MALLIK  
अपर महाप्रबन्धक (आवृत्ति सेवाएं)  
Addl. General Manager (CS)  
एन टी पी सी लिमिटेड / NTPC LIMITED  
EOC, A-8A, Sector-24, Noida, U.P. 201301



अभियांत्रिकी कार्यालय परिसर, प्लॉट नं. ए - ८/४, सेक्टर २४, पोस्ट बॉक्स नं. १३, नोएडा (उ.प्र.), पिन: २०१३  
ENGINEERING OFFICE COMPLEX, Plot No. A-8A, Sector-24, Post Box No. 13, NOIDA (U.P.), Pin: 201  
कॉर्पोरेट पहचान नंबर: एल. ४०१०१ डी. एल. १२७५ जी. ओ. आई. ००७९६६, वेबसाइट: www.ntpc.co.in  
Corporate Identification Number : L40101DL1975GOI007966, Website: www.ntpc.co.in  
टेलीफोन नं.: ०१२०-२४१०३३३ (१० लाईनें), ०१२०-२४१०११६ (५ लाईनें), फैक्स: ०१२०-२४१०१३६, ०१२०-२४१०१३७  
Telephone No.: 0120-2410333 (10 Lines), 0120-2410116 (5-Lines), Fax: 0120-2410136, 0120-2410137  
पंजीकृत कार्यालय : एन.टी.पी.सी. भवन, स्कोप कॉम्प्लेक्स, इन्स्टीट्यूशनल एरिया, लोदी रोड, नई दिल्ली - ११०००३  
Regd. Office: NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003

Ref No: CS-7015-602(R1)-9-CS-LOA-6538

Date: 09.02.2017

(Indian Rupees One Hundred Eleven Crore Ninety Lacs only) for the entire scope of work as per Bidding Document No. CS-7015-602(R1)-9 as per break up given below:

Sl .No.	DESCRIPTION OF SERVICE	Quantity	Unit	Quoted Price in INR	Total Price (in INR)
1	Expenditure towards Construction of R&R Colony inclusive of all taxes, duties, levies, octroi, license fee, including service tax if applicable etc. as applicable on Construction of R&R Colony to be funded by Owner (in INR) as per BID documents.	1.00	Lump Sum	1,119,000,000.00	1,119,000,000.00
2	Base Mining Fee per tonne of coal produced for average Strip Ratio of 2.59 including crushing charges and delivery into Railway wagons through rapid loading silo as per RFP documents.	15,20,00,000	Tonne	387.6725	58,926,220,000.00
3	TOTAL PRICE OF THE PACKAGE				60,045,220,000.00

- (ii) Taxes and duties shall be as per the Project Agreement read in conjunction with Amendments, Errata & Clarifications to Bid Documents.
- (iii) The Expenditures towards construction of R&R colony shall be on firm price basis and shall not be subject to any adjustment, whatsoever including change in law, during the execution in accordance with clause 16.1 of the Project Agreement.
- (iv) Mining fee payable shall further be subject to adjustment for Strip ratio and escalation as per the formulae stipulated in Schedule – 11 of Project Agreement. The value of Coefficient of Fuel (d) shall be 0.25 and the value of coefficient of Power (p) shall be 0.10 (refer **Annexure-I**).

All other terms and conditions shall be as per the Project Agreement read in conjunction with Amendments, Errata & Clarifications to bidding documents.

For Sainik Mining And Allied Services Ltd.



अभियांत्रिकी कार्यालय परिसर, प्लॉट नं. ए - ८ ए, सेक्टर २४, पोस्ट बॉक्स नं. १३, नोएडा (उ.प्र.), पिन: २०१  
 ENGINEERING OFFICE COMPLEX, Plot No. A-8A, Sector-24, Post Box No. 13, NOIDA (U.P.), Pin: 2  
 कॉर्पोरेट पहचान नंबर: एन. ४०१०१ डी. एन. १९६५ जी. ओ. आई. ००६१६६, वेबसाइट: www.ntpc.co.in  
 Corporate Identification Number : L40101DL1975GOI007966, Website: www.ntpc.co.in  
 टेलीफोन नं.: ०१२०-२४१०३३३ (१० लाईनें), ०१२०-२४१०११६ (५ लाईनें), फैक्स: ०१२०-२४१०१३६, ०१२०-२४१०१३७  
 Telephone No.: 0120-2410333 (10 Lines), 0120-2410116 (5-Lines), Fax: 0120-2410136, 0120-24101  
 पंजीकृत कार्यालय : एन.टी.पी.सी. भवन, स्कोप कॉम्प्लेक्स, ७ इंस्टीट्यूशनल परिया, लोदी रोड, नई दिल्ली - ११०००  
 Regd. Office: NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-11000

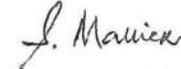
Ref No: CS-7015-602(R1)-9-CS-LOA-6538

Date: 09.02.2017

- 3.0 In line with the provision stipulated at Clause 6.4.4 of Vol-I of Bid Documents, within twenty-eight (28) days on receipt of the Project Agreement, you shall sign and date the Project Agreement along with all the documents specified at Clause 1.3 of Project Agreement and return it to the Owner.
- 4.0 This Letter of Acceptance is being issued to you in duplicate. We request you to return its duplicate copy duly signed and stamped on each page including enclosed Annexures, by the authorized signatory of your company as a proof of your acknowledgement and confirmation.

Thanking You.

Yours faithfully,  
For and on behalf of NTPC Limited



**Name: Somnath Mallick**  
**Designation: AGM (CS-IV)**  
**Tel No: 01202410199**  
**Mob no:9650992263**  
**Fax No:120 - 2410215**

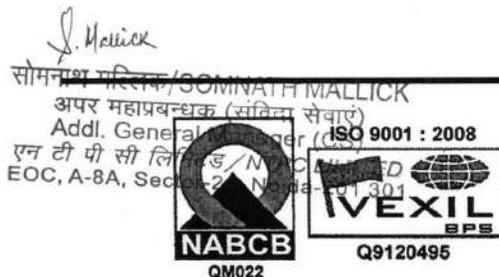
Encl: **Annexure-I**: Minutes of Post Bid Discussions held on 30.05.2016

For Sainik Mining And Allied Services Ltd.



Authorized Signatory

5



अभियांत्रिकी कार्यालय परिसर, प्लॉट नं. ए - ८ ए, सेक्टर २४, पोस्ट बॉक्स नं. १३, नोएडा (उ.प्र.), पिन: २०१३०१  
ENGINEERING OFFICE COMPLEX, Plot No. A-8A, Sector-24, Post Box No. 13, NOIDA (U.P.), Pin: 201301  
कॉरपोरेट पहचान नंबर: एल. ४०१०१ डी. एल. १९७५ जी. ओ. आई. ००७९६६, वेबसाइट: www.ntpc.co.in  
Corporate Identification Number : L40101DL1975GOI007966, Website: www.ntpc.co.in  
टेलीफोन नं.: ०१२०-२४१०३३३ (१० लाईनें), ०१२०-२४१०११६ (५ लाईनें), फैक्स: ०१२०-२४१०१३६, ०१२०-२४१०१३७  
Telephone No.: 0120-2410333 (10 Lines), 0120-2410116 (5-Lines), Fax: 0120-2410136, 0120-2410137  
पंजीकृत कार्यालय : एन.टी.पी.सी. भवन, स्कोप कम्प्लेक्स, ७ इन्स्टीट्यूशनल एरिया, लोदी रोड, नई दिल्ली - ११०००३  
Regd. Office: NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003

# ANNEXURE -F

## Schedule 11: Adjustments to Base Mining Fee for Strip Ratio and Escalation of Mining Fee

### 1.0 Adjustment to Base Mining Fee for Strip Ratio

The Base Mining Fee as per the Project Agreement shall be adjusted for the Strip Ratio calculated in the AAPP for that Operating Year based on the revised Geological Model incorporating the infill drilling data. The adjustment in Base Mining Fee for the Strip Ratio shall be as under:

**For Operating Year 1 to Operating Year 24 and extended term, if any as specified at clause 4.2;**

Base Mining Fee adjusted for Strip Ratio ( $MF_{ns}$ ) =  $MF_n (0.1 + 0.9 \times (1 + SR_n) / (1 + SR_0))$

Where,

$MF_n$  = Quoted Base Mining Fee per tonne of coal produced for average Strip Ratio of **2.59**.

$SR_0$  = The base Strip Ratio for the term of Project Agreement i.e. **2.59**.

$SR_n$  = Strip Ratio for  $n^{\text{th}}$  Operating Year as specified in AAPP

$MF_{ns}$  = Adjusted Base Mining Fee per tonne of coal for  $n^{\text{th}}$  Operating year after adjustment for the Strip Ratio

### 2.0 Escalation on Base Mining Fee

The escalation on Base Mining Fee (after adjustment for the Strip Ratio as brought above) shall be as per the following terms and the formula:

### 2.1 Components of Escalation

The details of different components of escalation are provided in the table below:

S.No.	Value of Coefficient	Description of coefficient	Source of Index/ Price
1	F = 0.20	Fixed	
2	a = 0.04	Other Stores	WPI series for "All Commodities" as published by the Office of Economic Advisor, Ministry of Commerce & Industry, Government of India (Base Year: 2004-05 = 100)

3	b = 0.06	Tyres	Monthly WPI series for "Truck Tyres" as published by the Office of Economic Advisor, Ministry of Commerce & Industry, Government of India (Base Year: 2004-05 = 100)
4	c = 0.17	Heavy Machinery and Parts	WPI series for "Mining/ Quarrying/ Metallurgical Machinery/Parts" as published by the Office of Economic Advisor, Ministry of Commerce & Industry, Government of India (Base Year: 2004-05 = 100)
5	*d = .....	Fuel	WPI series for "High Speed Diesel" as published by the Office of Economic Advisor, Ministry of Commerce & Industry, Government of India (Base Year: 2004-05 = 100)
6	e = 0.06	Explosive	WPI series for "Matches, Explosives and Other Chemicals" as published by the Office of Economic Advisor, Ministry of Commerce & Industry, Government of India (Base Year: 2004-05 = 100)
7	*p= .....	Power	"Power Tariff for High Tension Service" as notified by Odisha State Electricity Regulatory Commission.
8	l= 0.12	Salaries and Wages	"All India Consumer Price Index for Industrial Workers" (All India Monthly Average) published by Labour Bureau, Shimla, Government of India. (Base Year: 2001 = 100)

Note: The sum of values of coefficients of fuel and power (i.e. d+p) must be 0.35

- A, B, C & E refers to the published Price Indices of corresponding major cost components, as mentioned in the table above.

- P shall be the Power Tariff, as mentioned in the table above

- D shall be the Diesel Price, as mentioned in the table above

- L shall be the Index for Labour, as mentioned in the table above

\* Bidder have to indicate Value of Coefficients of Fuel and Power (d & p) keeping the sum i.e. d+p=0.35

## 2.2 Periodicity of Escalation (For Calculation and Payment purpose)

Quarterly basis

### 2.3 Escalation Formula

The escalation on Base Mining Fee (after adjustment for the Strip Ratio) shall be determined as follows:

$$MF_{ns\ esc} = (MF_{ns}) \times (F + a \times A_n / A_0 + b \times B_n / B_0 + c \times C_n / C_0 + d \times D_n / D_0 + e \times E_n / E_0 + p \times P_n / P_0 + l \times L_n / L_0) - (MF_{ns})$$

Where,

$n$  =  $n^{th}$  Operating Year (period counted as 1<sup>st</sup> April to 31<sup>st</sup> March) counted from the Coal Production Start Date.

$MF_{ns}$  = Adjusted Base Mining Fee per tonne of coal for  $n^{th}$  Operating Year after adjustment for the Strip Ratio

$MF_{ns\ esc}$  = Escalation on Base Mining Fee per Tonne of coal to be calculated as detailed above

For the Indices/Prices, Subscript 'o' refers to Indices/Prices as on 30 days prior to the date set for opening of Techno-Commercial Proposals. Subscript 'n' refers to average of monthly Indices/Prices during the previous Quarter.

The Payment throughout the ensuing Operating Year shall be made based on the adjusted Base Mining Fee for Strip Ratio and escalation. The actual quantities of coal and overburden shall be reconciled at the end of each Quarter to determine the actual Strip Ratio and the cumulative payments made till that Quarter to the Mine Operator shall be adjusted.

### 3.0 Total Mining Fee for Operating Year "n" = $MF_{Total}$

$$MF_{Total} = (MF_{ns} + MF_{ns\ esc})$$

F. No. 22-13/2019-IA.III

Government of India

Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

\*\*\*\*\*

Indira Paryavaran Bhawan  
Aliganj, Jorbagh Road  
New Delhi-110 003Dated: 28<sup>th</sup> August, 2019**Office Memorandum****Sub: Change in conditions stipulated in the Environmental Clearances of Thermal Power Plants and Coal Mines in line with the Fly Ash Notification and subsequent amendments - reg.**

The Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 mandates the requirement of prior environmental clearance to the projects/activities listed in the schedule to the said Notification. These projects/activities have been categorized under category A or B and require appraisal/and approval by the respective regulatory authorities (MoEF&CC/SEIAAs) at the Central/State level.

2. As per the provisions of the EIA Notification, 2006, read with subsequent amendments, mining of minerals is covered under Category A/B of the Schedule to the EIA Notification, 2006 based on their areal extent, and thus requiring prior environmental clearance from the concerned regulatory authority.

3. Based on the proposals submitted by the project proponent and recommendations of the sectoral Expert Appraisal Committee, mining projects and thermal power plants were granted Environmental Clearance by the Ministry/State Environment Impact Assessment Authorities (SEIAAs) from time to time, subject to compliance of certain terms and conditions as environmental safeguards necessitated at that stage, which also included the condition for backfilling of mines voids, use/disposal of fly ash in low lying areas, etc.

4. In order to address the environmental concerns of fly ash and to improve its utilization, MoEF&CC has issued a Notification on 14<sup>th</sup> September, 1999 and subsequent amendments issued vide Notifications dated 27<sup>th</sup> August, 2003, 3<sup>rd</sup> November, 2009 and 25<sup>th</sup> January, 2016 from time to time.

The Fly Ash Notification issued vide S.O.2804 (E) dated 3<sup>rd</sup> November, 2009 provides for mandatory use of fly ash in the external overburden dump, backfilling or stowing of mines. The main concern is poor fly ash utilization by the pithead power plants mainly because of limited potential in cement industries/road projects and non-utilization of fly ash in stowing and overburden in coal mines.

5. An Expert Committee was constituted for developing a focussed strategy for best utilization of flyash to manufacture end products. The Committee has made recommendations for enhanced utilization of flyash in various sectors viz. mines, roads, bricks manufacturing, cement manufacturing, etc. During an Inter-ministerial consultation held on 21<sup>st</sup> January, 2019 under the Chairmanship of Secretary (EF&CC), recommendations of the Expert Committee were accepted, which *inter-alia* included the following:-

- a) MoEF&CC should revisit the conditions stipulated in the existing environmental clearances of Thermal Power Plants for flyash utilization and modify them in consonance with the flyash notification.
- b) Appropriate conditions need to be incorporated in the environmental clearances for utilization of flyash in mines backfilling/stowing.

6. The matter has been examined in the Ministry. Further, the matter has been also been referred to the EAC (Thermal Power Projects) in its meeting held on 28.5.2019 and 12.7.2019. The EAC mentioned that though the Flyash Notification, 1999 and subsequent amendments allow the unrestricted use of flyash in abandoned mines, low lying areas, soil conditioner in agriculture, there are no specific guidelines/methodology available for safe disposal of flyash so as to minimize the damage to the environment. In absence of methodology, EAC has been examining the proposals on case to case basis and recommending for disposal of flyash in abandoned mines. Further, the EAC has also expressed the concerns over the long term impacts of flyash disposal on groundwater, soil quality and impact on associated flora and fauna. Now, the guidelines for disposal of fly ash utilisation in low lying areas and mine voids have been prepared by the Central Pollution Control Board and placed before the EAC (Thermal Power and Coal Mining) in its meeting held on 12.7.2019.

7. In view of the recommendations of the EAC (Thermal Power) in its meeting held on 12.7.2019, after careful examination of the matter and to meet the objectives of the Fly Ash Notification, 1999 & its amendments, the Ministry hereby stipulates the following conditions in the existing Environmental Clearances of Thermal Power Plants and Coal mines which have valid Environmental Clearance accorded by the Ministry/SEIAA, that will replace the existing conditions (Specific & General) which prohibited the use of fly ash in abandoned mines/low lying areas/soil conditioner in agriculture:

- i. The guidelines prepared by CPCB for disposal of flyash for reclamation of low lying areas and in stowing/backfilling of abandoned mines/quarries shall be followed during disposal of ash in abandoned or working mines, as annexed.
- ii. There should at least be clearance of 500 m of safe distance be maintained from River and water body in case of ash disposal in abandoned mines to prevent embankment failures and flyash flowing into the nearby water body.
- iii. The top layer of the flyash disposal area in the abandoned mines shall be kept moist during disposal.
- iv. Top layer of the disposed area should have 70 cm overburden or gravels/stones and then 30 cm sweet soil cover. Subsequently, the vegetation shall be raised on the soil cover.
- v. Bioaccumulation and bio-magnification tests shall be conducted on surrounding flora and fauna (tree leaves, vegetation, crop yields and cattle population) during pre-monsoon and post monsoon to find out any trace metals escaped through groundwater or runoff.
- vi. Surface runoff and supernatant water, in any case shall not be let into the surrounding areas. It shall be collected by providing adequate drains around the mine. The supernatant water along with surface runoff shall be treated and re-used for mixing ash and plant operations.
- vii. To the extent possible, only decanted water from mine, make up water from treated effluents such as cooling tower blow down and treated sewage water shall be used for making ash slurry.

- viii. Flyash to be used as soil conditioner in agriculture needs and to be applied in controlled manner to limit excessive application so as to prevent soil degradation. The optimize proportion of ash to be applied which is to be certified by the State Agricultural Universities/Colleges based on the soil testing.
  - ix. Approval from DGMS shall be obtained before disposing the ash in the mine voids.
  - x. Technology for conversion of fly ash into coarse granules for stowing in the underground mines to be explored.
  - xi. All the power plants should install different silos for dry collection of flyash.
  - xii. Records pertaining to details of month-wise quantity of flyash disposed and water consumption along with nature/source of water shall be maintained and submitted to Ministry/Regional Office annually.
  - xiii. Before starting the disposal of ash into mine voids, the NOC/Permission from the mine owner is to be obtained incase the mine closure activities are not completed or State Government incase the mine has been handed over to the State Govt. after its closure. A copy of such NOC/Permission is to be submitted to the Ministry and its Regional Offices.
8. This issues with the approval of the Competent Authority.



**(Dr. S. Kerketta)**  
**Director, IA Division**

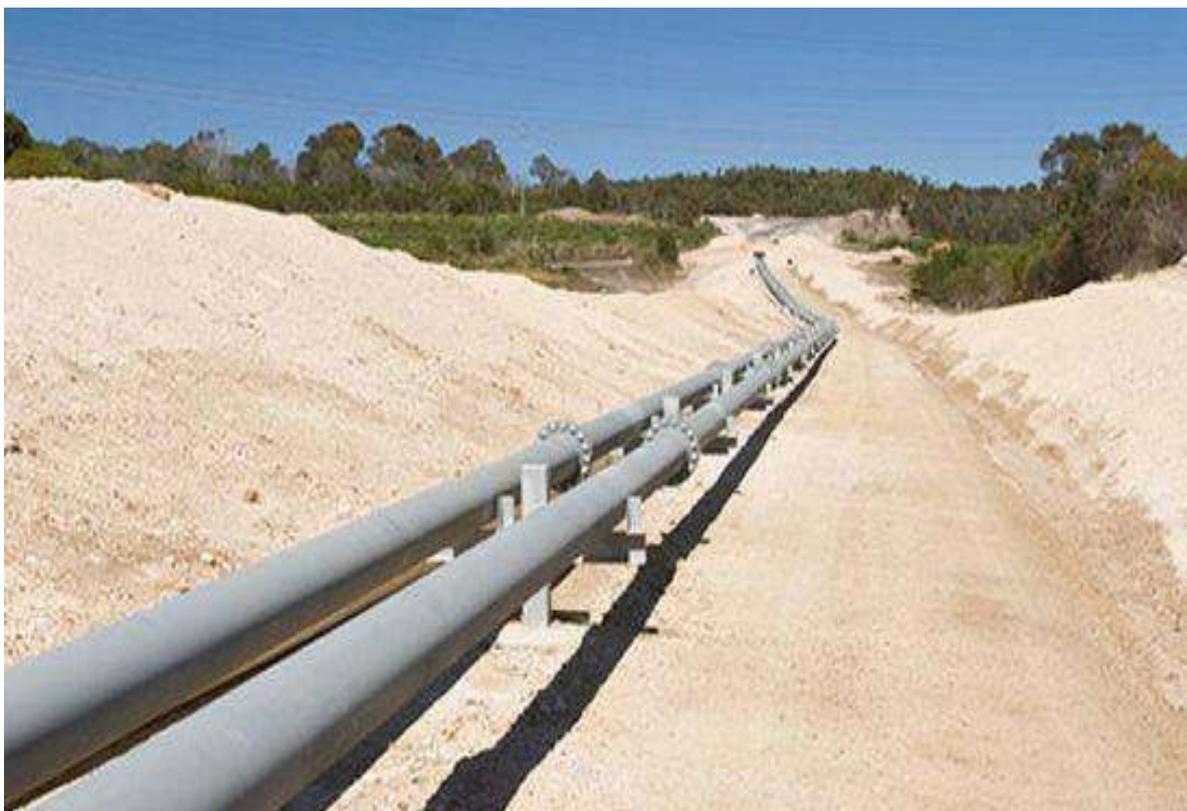
To

1. The Chairman, Central Pollution Control Board (CPCB)
2. The Chairman/Member Secretaries all the Expert Appraisal Committees
3. The Chairman /Member Secretaries of all the SEIAAs/SEACs
4. The Chairman/Member Secretaries of all SPCBs/UTPCCs
5. All the Power Plant Operators/ Coal Mining Operators who were accorded Environmental Clearance.
6. All the ROs of MoEF&CC.
7. All the Officers of I.A. Division

**Copy for information to:**

1. PS to Hon'ble Minister for Environment, Forest and Climate Change
2. PS to Hon'ble MoS (EF&CC)
3. PPS to Secretary(EF&CC)
4. PPS to SS(AKJ) / AS (RSP)
5. Sr.PPS to JS (GM)/ JS(NK)
6. Website of MoEF&CC.
7. Guard file.

**Guidelines for disposal/utilisation of Fly Ash for  
reclamation of Low Lying Areas and in stowing of  
Abandoned mines/Quarries**



**Central Pollution Control Board  
March, 2019**

## I N D E X

<b>Sr No.</b>	<b>Chapter</b>
1.0	Introduction
2.0	Status of flyash utilisation
3.0	Need of guidelines
4.0	Loading/unloading and transportation of flyash
4.1	Current Practice for Handling & Disposal of Flyash & Bottom ash (within the power plant)
4.2	Guidelines for loading, unloading, storage, transportation of flyash
4.2.1	Maximise dry collection of fly ash and bottom ash
4.2.1	Loading, unloading and storage
4.2.3	Transportation
4.2.4	Code of Practices for general maintenance of roads, vehicles and conditioning of flyash
5.0	Reclamation of Low Lying area using Ash
6.0	Disposal of flyash in voids of abandoned mines
6.1	Study requirements
6.2	Mode of ash transportation to mine void area
6.3	Monitoring
6.4	Reclamation of land post-filling
7.0	Precaution
8.0	Regulatory Procedure for Processing the Application
Appendix	Guidelines for disposal of flyash in open cast mines along with Over Burden (OB)
References	1.Guidelines for Reclamation of Low Lying Areas and Abandoned Quarries with Ash , August 2017, Odisha Pollution control board

- 2.Guidelines for Low Lying area development using Ash, ash Policy 2015, NTPC Ltd.
- 3.Permission of DGMS to M/s JSPL & JPL for disposing ash in coal mines

## **Guidelines for disposal/utilisation of flyash for reclamation of Low Lying Areas and in stowing of Abandoned mines/Quarries**

### **1.0 Introduction:**

Management of huge quantity of ash (fly ash, bottom ash and pond ash) generated from coal fired Thermal Power Plants (TPPs) is a serious environmental challenge. Ash generation from coal or lignite based thermal power plants, has increased from 40 Million tonne per year in 1993-94, to more than 200 Million tonne per year in 2017-18 and is projected to increase to 275 Million Tons / year by 2032.

The ash generation in coal and lignite based thermal power plants in various forms such as dry ash, bottom ash, pond ash and mound ash that are required to be managed in such a manner that it does not affect the environment. Utilisation of ash for reclamation of low lying areas and abandoned quarries is recognised as an alternate option and therefore, MoEF&CC has issued a notification to address utilisation off ash for various purposes including these two options

The Ministry of Environment, Forest and Climate Change (MoEF&CC) issued the Fly Ash notification on 14th September, 1999, which has subsequently been amended in 2003, 2009 and 2016. The Fly Ash notification (1999) mandates the use of fly ash for the purpose of manufacturing ash-based products such as cement, concrete blocks, bricks, panels or any other material and for construction of roads, embankments, dams or for any other construction activity within a radius of 300 km from thermal power stations (TPPs). Besides, it also mandates use of fly ash in mines backfilling or stowing of mines within a distance of 50 km.

### **2.0 Status of fly ash utilisation:**

Since 1999 when flyash utilisation was made mandatory, the utilization of fly ash has increased from 6.64 million-ton in 1996-97 to 147.7 million-ton in 2017-18. Fly ash generation and utilization in 2017-18 from 182 coal/lignite based TPPs of various power utilities in the country was 220.7 and 147.7 million-ton, respectively. The percentage of fly ash utilization during 2017-18 has been 66.9%. During 2017-18, out of total fly ash generation, 35.6 % of total fly ash was used in the cement sector, followed by 14.28 % in making bricks & tiles, 11.57 % stored in ash dyke raising,

7.99% in mine filling, 16.85 % in reclamation of low lying area, 5.43 % in roads & embankments, 1.34% in concrete making, 0.21 % in agriculture, 6.73 % in others and 33.1% remained as unutilized fly ash.

Mine reclamation represents a potential beneficial use of flyash that has been receiving increased attention in recent years. Coal mining operations have produced both open pits and deep underground mine voids that can be filled by flyash. Placement of flyash into deep mines can provide structural support to abate subsidence, and placement of flyash in surface mines or other open pits can aid in restoring mined land to beneficial use. The use of flyash as mine backfill may provide the additional benefit of limiting impacts of acid mine drainage (AMD). Mostly flyashe is alkaline material that can neutralize acidic water and/or inhibit production of acid. Placement of fly ash may also reduce the permeability of mine strata and divert water away from acid-generating materials. Although flyash possess these beneficial physical and chemical properties, there are concerns regarding potential for release of toxic chemicals in the leachates from the fly ash. Therefore, scientifically sound fly ash management is needed so that environmental concerns can be adequately and reliably identified and addressed.

### **3.0 Need of Guidelines:**

Ministry of Environment and Forests and Climate Change (MoEF&CC) vide Notification No. S.O. 763 (E) dated 14th September 1999, last amended on 25th January, 2016 issued following directions for reclamation low lying area and stowing of mines;

- i. No agency, person or organization shall within a radius of three hundred Kilometres of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low-lying areas with soil; only ash shall be used for compaction and reclamation.
- ii. Soil required for top or side covers of embankments of roads or flyovers shall be excavated from the embankment site and if it is not possible to do so, only the minimum quantity of soil required for the purpose shall be excavated from soil borrow area. In either case, the topsoil should be kept or stored separately. Voids created at soil borrow area shall be filled up with fly ash with proper compaction and covered with topsoil kept separately as above and this would be done as an integral part of embankment project.

- iii. No person or agency shall within fifty kilometers (by road) from coal or lignite based Thermal Power Plants, undertake or approve stowing of mine without using at least 25 % of fly ash on weight to weight basis, of the total stowing materials used and this shall be done under the guidance of the Director General of Mines Safety (DGMS).
- iv. No person or agency shall within fifty kilometers (by road) from coal or lignite based Thermal Power Plants, undertake or approve external dump of mining Over Burden (OB) without using at least 25 % of ash on volume to volume basis of the total materials used for external dump of overburden and same percentage in upper benches of back filling of opencast mines and this shall be done under the guidance of the Director General of Mines Safety (DGMS);
- v. All agencies undertaking construction of roads of flyover bridges and reclamation and compaction of low lying areas, including Department of Road Transport and Highways (DORTH), National Highways Authority of India (NHAI), Central Public Works Department (CPWD), State Public Works Department and other State Government Agencies, shall within a period of four months from the publication of this Notification “ make provisions in their tender documents, schedules of approved materials and rates as well as technical documents for implementation of this Notification, including those relating to soil borrow area or pit”.
- vi. The pond ash should be made available free of any charge as is as where basis to manufacturers of bricks, blocks, tiles including clay flyash bricks production manufacturer’s units, farmers, central and the state road construction agencies, Public Works Department and to agencies engaged in backfilling or stowing of mines.

Though, flyash utilisation has gained momentum progressively over the years, further efforts are required to explore new areas of ash utilisation. With suitable safeguards, mine backfilling including disposal of flyash in abandoned quarries and road construction specially in the construction of National Highways and Expressways could be the major mode of flyash utilisation in the near future as these areas have vast potential. It would perhaps be desirable that the concerned Ministries should take steps in sorting out the bottlenecks such as declaring a list of abandoned mines, making adequate provisions in respective schedules for flyash utilisation by the Indian Road Congress & construction agencies etc.

MoEF & CC vide letter dated 01.03.2019 asked CPCB to come out with guidelines based on Odisha Pollution Control Board experience for reclamation of low lying areas and abandoned quarries with ash as recommended by the Expert Committee that was constituted by Niti Aayog vide O.M. No. 25 (11)/2014-Minerals dated 12.06.2018 for developing a focus strategy for best utilisation of fly ash to manufacture end products recommended.

The scope of guidelines covers transportation and disposal of flyash in low lying areas and abandoned quarries in an environmentally friendly manner.

#### **4.0 Loading/unloading and transportation of flyash**

##### **4.1 Current Practice for Handling & Disposal of Flyash & Bottom ash (within the power plant)**

Flyash is collected in dry form from ESP hopper and disposed either in dry form or through wet slurry form. While, bottom ash collected at the bottom of boiler and is disposed in wet slurry form into the ash ponds.

Following technologies are conventionally used for handling & disposal of flyash and bottom ash collected from ESPs hoppers and boiler bottom respectively within the plant or upto the ash pond area:

- I. Dry Pneumatic conveying
- II. Dry (moist) Conveying system through belt conveyor/tube belt conveyor
- III. High concentration slurry disposal system
- IV. Medium concentration slurry disposal system
- V. Lean concentration slurry disposal system

Amongst the above technologies, Dry Pneumatic conveying, Medium concentration slurry disposal system, High concentration slurry disposal system, and Dry (moist) Conveying system through belt conveyor/tube belt conveyor are preferable as compared to Lean concentration slurry disposal system.

The dry ash is typically conveyed pneumatically from the ESP or filter fabric hoppers to storage silos where it is kept dry, pending utilization or further processing, or to a system where the dry ash is mixed with water and conveyed (sluiced) to an on-site storage pond. Fly ash is stored in silos, domes and other bulk storage facilities. Fly ash can be transferred using air

slides, bucket conveyors and screw conveyors, or it can be pneumatically conveyed through pipelines under positive or negative pressure conditions.

Dry fly ash collected is also be suitably moistened with water and wetting agents, as applicable, using specialized equipment (conditioned) and hauled in covered dump trucks for special applications such as structural fills. Water conditioned fly ash can also be suitably stockpiled at jobsites. Exposed stockpiled material must be kept moist or suitably covered to prevent fugitive emission.

The dry bottom ash removal and its transportation is certainly more environment friendly, compared to that of wet ash removal and transport system.

## **4.2 Guidelines for loading, unloading, storage, transportation of flyash**

The power plants need to maximise dry collection of fly ash & bottom ash and also adopt adequate measures to prevent fugitive dust emission during loading, unloading, storage, transportation and various uses of dry as well as ash bottom ash and pond ash. Following guidelines are, therefore, suggested for prevention of pollution and augmentation of flyash utilisation

### **4.2.1 Maximise dry collection of fly ash and bottom ash**

- a. Coarse fly ash from first field of ESP hoppers need to be collected and stored separately.
- b. Fine fly ash from second field onwards of ESP Hoppers should be collected separately. For some specific usage, fine fly ash may be passed through Classifier for further separation of fine fly ash and stored in separate silo.
- c. Bottom ash which is not utilised presently could also be collected in dry form and converted into a valuable resource if processed to match the end use specification. Wet collection & disposal of bottom ash should be minimised as far as possible

### **4.2.2 Loading, Unloading and Storage**

Installation of Bag Filters with dry flyash collection and storage in Silos at loading and unloading points are standard practices at both locations i.e loading at power plant site as well as at the unloading point at user's site. Suggestions for further improvement in existing practices are as under:

- a. Current practice of loading of fly ash in Bulklers/Tankers requires improvement at the stage of loading of fly ash in Tankers. The opening of telescopic chutes at the loading end should be air tight and confined to avoid fugitive dust emission.
- b. The Pollution Control Equipment / Cascade Filters, attached with fly ash loading chute should be periodically cleaned along with regular scheduled maintenance of bag filter to avoid choking and malfunctioning of Bag Filter. It would mitigate the dust emission during loading of fly ash.
- c. Malfunctioning of level sensors can be avoided, with regular maintenance, to prevent over filling of fly ash in Tankers .
- d. The Weigh Bridge to be installed under fly ash loading chute to fill just the required quantity of fly ash in tankers so that overflow/spillage of fly ash in open areas is avoided which otherwise results in heavy fugitive emission all around.
- e. Opening of tankers need to be properly locked during transportation of fly ash. Automatic opening / closing system need to be installed without fail.
- f. Current practice of unloading of fly ash from tanker to storage hopper through pneumatic system is fairly good. Otherwise, the leakage of fly ash will occur at bends and joints of transportation pipe line. The fly ash being abrasive in nature causes damage at bends and joint locations. Fly ash should, therefore be transported through PVC coated pipes to avoid abrasion otherwise it may lead to leakage of flyash. The mechanical unloading system should be envisaged to avoid high pressure and dust leakage from unloading pipe lines. As far as possible, number of bends should be minimised.
- g. The fly ash storage silo should be of or coated with anti-abrasive or anti-corrosive material. It is better to provide concrete silo/hopper to avoid leakages.

- h. Proper functioning of all the level sensor of Storage Hopper to be ensured to avoid any possible spillage from Hopper opening.
- i. The Bag Filter made of anti-abrasive material/cloth be provided with telescopic chute.
- j. Dumping of ash in Ash pond should be done mechanically in moist condition so that ash does not get air borne and pose fugitive dust problem.
- k. The bottom ash discharged from boiler bed, may be transported pneumatically in dry form / in slurry form to the ash pond

### **4.2.3 Transportation**

Fly ash transportation has many challenges like distance to be transported, form of ash i.e. dry or wet ash, user's requirement, economic feasibility, requirement of surrounding vicinity and many other site specific issues. In any case, control of dust emission during transportation is prime concern and more challenging being a non-point source of pollution and larger area coverage due to movement from one place to other passing through various receptors. As flyash is used by different users for different purposes such as cement manufacturing, brick manufacturing, mine back filling, road construction and filling of low lying area, the handling and transportation have to accordingly decided. Following modes of transportation and precautions are suggested for mine back filling and development of low lying areas by disposal of flyash or bottom ash to avoid fugitive dust emission:

#### **a. Transportation for abandoned mine back filling**

- I. Pipe conveyors, wherever feasible, based on the topography of the area should be used.
- II. Tankers/ railway wagons/ bulkers or mechanically designed covered trucks need to be used
- III. Thermal Power Plants using wet ash disposal, if permitted can transport ash slurry directly to abandoned mine through ash slurry pipe line.

#### **b. Transportation for filling of low lying area**

- I. Tankers/ bulkers or mechanically designed covered Trucks need to be used.

In no case, flyash or bottom ash shall be transported by open trucks / trollies irrespective of distance or end use. Thermal power plants and fly ash user agency shall collectively ensure that fly ash or bottom ash is transported in environmentally sound manner by following the guidelines mentioned in para 4.2.3 & 4.2.4.

#### **4.2.4 General Code of Practices for Maintenance of roads, vehicles and conditioning of flyash**

- a. Roads inside power plant and that of flyash user agency should be paved and plantation of adequate width should be done at both sides. Mechanised road sweepers should be deployed. In addition, adequate arrangements for water sprinkling should be made to suppress fugitive dust emission, if any.
- b. Thermal power plants and user agencies should make arrangements (two stages) for washing of wheels of the vehicles (bulkiers/trucks) before deployed for fly ash transportation.
- c. Fly ash to be transported should be conditioned with water to maintain minimum of 15% moisture at the disposal point so that ash does not get air borne and cause fugitive emission.
- d. Adequate free board in trucks should be kept to avoid overflow/spillage during transportation.
- e. In case of any spillage enroute during transportation of fly ash, the agency shall ensure that spilled ash is collected and transported to the disposal/usage site immediately.
- f. All the bulkiers and trucks responsible for carrying fly ash should be with valid Pollution Under Control certificates.
- g. Provision should be preferably made for weighing of fly ash loaded into tankers/ railway wagons/bulkiers etc under the silo.
- h. The speed limit of vehicles carrying flyash should be strictly enforced and it should not exceed 40 km per hour.

- i. State Pollution Control Boards shall clearly indicate mode of transportation and method of loading and unloading while granting the consent.
- j. Transportation of flyash through thickly populated areas should be avoided as far as possible.
- k. General awareness/ training programmes be organised regularly for tanker operating staff like drivers and cleaners on the impact of hazards of fly ash.

## 5.0 Reclamation of Low Lying area using Ash

Filling of Low lying areas inside the plant premises and outside within 300 km. of power plant may be taken up using ash. Low lying area reclamation with ash should be taken up adopting standard practices as per 2015 technical specification mentioned in NTPC Policy. Following steps should be taken up prior to initiate low lying area developmental activities.

### 5.1 Preconditions:

- 5.1.1 **Consent from land owner:** Consent/ permission should be obtained in writing from the land owner before start of work.
- 5.1.2 **Permission from Regulatory authority:** Power plant/ land owner/ agency shall obtain statutory permission from regulatory authorities such as SPCB as per the requirement.
- 5.1.3 **Prevention of pollution:** Suitable methods should be adopted and necessary arrangement should be made to prevent pollution during excavation of pond ash at ash pond, filling area and during transportation of ash.
- 5.1.4 **Soil Cover on the top of ash fill:** As per the MOEF&CC gazette notification of ash utilization dated 14-09-1999 and as amendment on dated 27-08-2003 and 03-11-2009, the soil required for soil cover shall be excavated from land fill site itself and kept separately before taking for ash filling. If it is not possible to do so, only the minimum quantity of soil required for the purpose of cover shall be excavated from the soil borrow area. The voids so created due to removal of soil shall be filled up with ash with proper compaction and covered at top with soil cover. About 300-500 mm thick soil layer shall be placed over the ash fill area. This should be done as an integral part of low lying area development work.

### 5.1.6 Restrictions :

Reclamation of area by ash shall not be permitted in the following areas :

- i. Flood plain area/Ecologically Sensitive Areas.
- ii. Agriculture land / area.
- iii. Reclamation of Forest land / area is permissible only if clearance from MoEF&CC as per Forest Conservation Act, 1980 is available.
- iv. Gochar Kisan Land.

## 5.2 Preparation of filling area

5.2.1 The entire area meant to receive the ash and earth filling shall be stripped by minimum 150 mm. The exact depth of stripping shall be decided by the Engineer-in-Charge depending upon nature of top soil and the vegetation present. All organic matter, vegetation, roots, stumps, bushes, rubbish, swamp materials, etc. shall be removed from the site. The stripping material and other unsuitable materials as referred above shall be kept away from the area to be filled up so that these do not get mixed up with filling material and disposed off to a place as decided by the Engineer-in-Charge.

### 5.2.2 Levelling

All existing undulations, holes, cavities and excavations made for plate load rests and other soil investigations, etc. shall be filled with pond ash having requisite moisture content. The ash thus filled shall be compacted with the help of vibratory rollers so as to achieve dry density of not less 95% as per I.S-2720 (Part-VII). This would result in a levelled surface upon which layer wise filling of compacted ash can be done.

5.2.3 Protection of pond or water body adjoining or within the working site: If any pond or water body exists within or adjoining the low lying area /quarry then an earthen embankment of the cross-section as given in the Figure below be constructed around the pond or water body to protect it from  
spilling of ash or ingress of surface runoff into it.



**Cross- section of water body protection embankment**

The soil used for the embankment should neither be granular nor black cotton soil. It should be of good quality for geo-technical application. Soil should be compacted to 95% proctor by Vibratory Roller of 15 T minimum capacity, in the layers of 25-30 cm and the optimum moisture content determined before execution of work. After attaining the desired height, the disposal area should be thoroughly compacted, graded followed by soil cover at least 15 cm thickness for proper reclamation of the land by grass turfing or appropriate plantation.

### **5.3 Excavation of pond ash from borrow area**

#### **5.3.1 Borrow Area-location**

The location and permissible depth of excavation of the Borrow areas for pond ash shall be got specifically approved from concerned Thermal Power Station. The boundaries and permissible depth of excavation so approved shall be strictly followed and no deviation shall be allowed. Similarly, routes for movement of all ash transportation vehicles, water tankers, equipment, etc. shall be got approved from Thermal Power Station. These shall be strictly followed and no deviation shall be allowed.

The excavation surfaces and surface of waste materials shall be left in a reasonably smooth and even condition. All the excavations within the ash pond shall be at a minimum slope of 4 (Horizontal): 1(Vertical)

#### **5.3.2 Site Clearance**

All areas required for borrowing shall be cleared of all trees and stumps, roots, bushes, rubbish and other objectionable material. Particular care shall be taken to exclude all organic matter from the ash to be placed in the fill. The cleared areas shall be maintained free of vegetation growth during the progress of the work.

#### **5.3.3 Stripping**

Borrow area shall be stripped of top layer by a depth of minimum 150 mm. The exact depth of stripping shall be decided by the Engineer-in-charge depending upon nature of top layer and the vegetation present.

#### **5.3.4 Borrow area watering & dewatering**

The natural moisture content of material in the borrow areas as well as the optimum moisture corresponding to the Proctor's maximum dry density for the material in the particular borrow area shall be obtained from laboratory tests. Additional moisture, if required, shall be introduced into the borrow area by watering well in advance of excavation to ensure uniformity of moisture content. If in any borrow area before or during excavation there is excess moisture, steps shall be taken to reduce the moisture by the selective excavation to secure the materials of required moisture content by excavating drainage ditches, by allowing adequate time for drying or by other means. To avoid formation of pools in the borrow areas during excavation operations, drainage ditches from borrow areas to the nearest outlets shall be excavated so as to obtain homogeneous mix. In general, all materials from a particular borrow area shall be mixture of materials obtained for the full depth of cut.

#### 5.3.5 Earth cover in Borrow Area

It shall be the responsibility of Thermal Power plant to arrange sweet soil from approved external borrows areas. The earth cover material shall consist of sandy loam free of admixture of stiff clay, refuse, stumps, roots, rock, bushes, weeds or any other material which would be detrimental to the proper development of vegetation growth. It shall not contain stone of size 25 mm and over . The loamy top soil shall be of healthy crops, grass or other plant growth, that is of good quality and reasonably free draining. Other specifications for Borrow area e.g. site clearance, stripping, Borrow area watering/De-watering etc. shall be as per relevant clauses of Borrow area for ash as outlined above i.e clause nos. 5.3.1 to 5.3.4.

### **5.4 Filling with pond ash**

#### 5.4.1 Placement

After the area has been prepared and levelled, pond ash excavated from Borrow areas having required moisture content shall be placed in layers not exceeding 300 mm in compacted thickness. The placing operations shall be such that in strips of 10-15 m of the material when compacted in the fill will be blended sufficiently to produce specified degree of compaction and stability. No stones, cobbles or rock fragments, having maximum dimensions more than 100 mm shall be placed in the fill. Stones and

cobbles shall be removed either at the borrow pit site before it is used as soil cover.

#### 5.4.2 Procedure

The material shall be placed in the fill in continuous horizontal layers, stretching right across the whole section, not more than 300 mm in compacted thickness and rolled as herein specified. The length of one layer shall not exceed 150 meters at one stretch. The layers shall be compacted in strips overlapping not less than 600 mm, if the rolled surface of any fill is found to be too wet for proper compaction, it shall be raked up, allowed to dry, or shall be worked with a harrow or any other approved equipment to reduce the moisture content to the required amount and then it shall be re-compacted before the next layer of ash is placed. Ash surfaces are likely to become dry in short intervals especially during hot and dry weather and hence enough moisture shall be added between difference passes to ensure proper compaction

#### 5.4.3 Compaction

The compaction of each layer shall be carried out so as to achieve maximum in-situ dry density 95% of maximum dry density (MDD) of the material found out as per I.S 2720 (Part VII). To achieve maximum compaction level use of vibratory rollers shall be made. Required number of passes shall be made so as to achieve desired compaction. Number of passes required shall be verified through trials tests before actual execution of work. The broad specifications of vibratory rollers required for the purpose is as follows:

- a) Static Weight = 6 to 10 t
- b) Static Linear Load = 20 – 35 kg/cm
- c) Frequency = 18 – 30 Hz (1100 to 1800 vibrations/ minute)
- d) Amplitude of vibrations = 0.5 mm to 1.5 mm

#### 5.4.4 Moisture control

So far as practicable, the materials shall be brought to the proper moisture content in the borrow area before excavation. If additional moisture is required, it shall be added at the fill site by sprinkling water before rolling the layer. Thermal Power Plant shall make arrangements for supply of water to the borrow areas as well as to the fill area. If the moisture content is more than requirement, the material shall be spread and allowed to dry

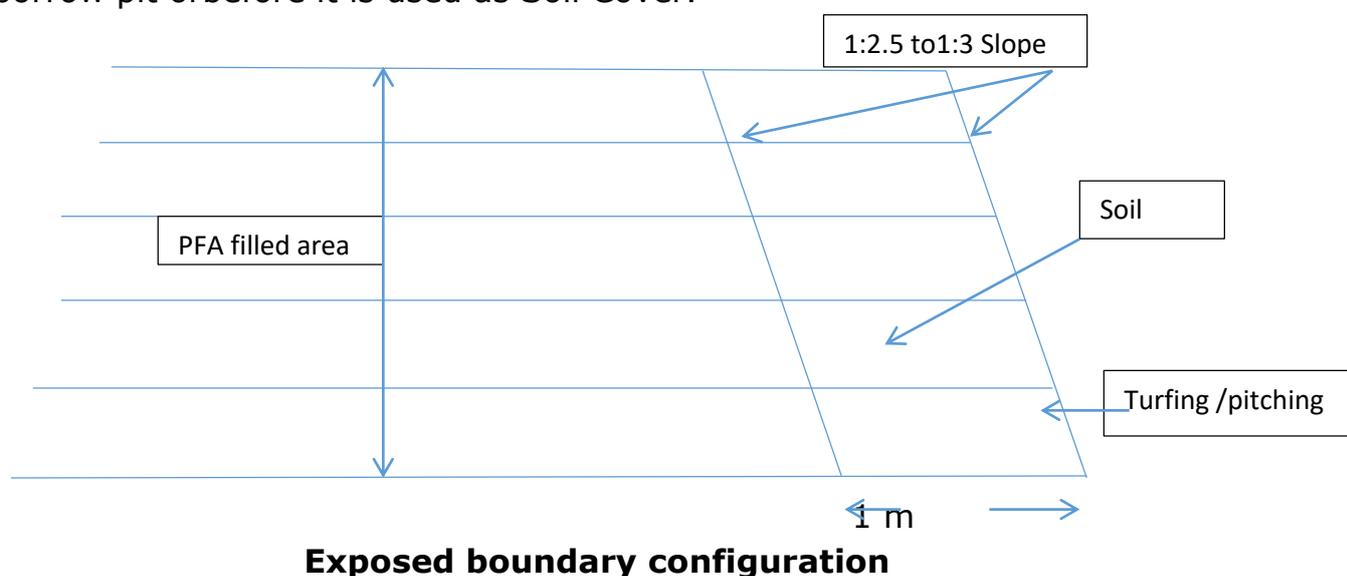
before rolling. The moisture content shall be at most uniform throughout the layer of material and ploughing or other methods of mixing to obtain uniform distribution. If the moisture content is more or less than the range of the required moisture content, or if it is not uniformly distributed throughout the layer, rolling shall be stopped, and shall be started again only when the above conditions are met with.

Fill materials shall be placed only when the weather conditions are satisfactory to permit accurate control of the moisture content in the materials.

#### 5.4.5 Placement of earth cover in filing area

Earth cover shall be laid simultaneously with the laying of compacted ash layers and on side slopes. As in the case of ash layers, compacted thickness of earth layers shall not be exceeding 300 mm. As far as top cover of earth is concerned, after the area has been covered with compacted ash up to 500 mm below the required finished level of the area, a compacted layer of 500 mm thickness of suitable earth shall be placed over ash surface. This cover shall be placed in layers, each layer shall be of 250 mm in compacted thickness.

The combined excavation and placing operations shall be such that the materials when compacted in the fill will be blended sufficiently to produce specified degree of compaction on stability. No stones, cobbles or rock fragments, having maximum dimensions more than 25 mm shall be placed in the earth cover. Such stones or cobbles shall be removed either at the borrow pit or before it is used as Soil Cover.



Other requirements of earth cover laying shall be similar to those of ash laying i.e. as outlined in 5.4.1 to 5.4.4 above.

## 5.5 Prevention of Pollution

It shall be responsibility of thermal power plant or his contractor that no air borne and water borne pollution shall occur during all stages of operations such as in Borrow areas, during transportation of ash/ earth, during placement of fill material etc. All measures such as water sprinkling covering moist ash/ earth with tarpaulins in open trucks, etc., shall be taken to done care of above.

## 6.0 Disposal of flyash in voids of abandoned mines

As per notifications 1999 and 2009, power plant shall undertake or approve stowing of mines without using at least 25% of fly ash on weight to weight basis, of the total stowing materials used. Mine void filling on pilot basis is being carried out at the power plants of NTPC Ltd., Bhushan Steel and NALCO in Odisha with prior permission from MoEF & CC and OSPCB. Based on their experience and study conducted by CMPDIL, Ranchi for NTPC Talcher, following methodology is suggested for filling of mine voids with flyash.

6.1 The power plant authority shall carry out following study prior to taking up ash disposal activities in mine void to ensure no change/damage/deterioration in water quality and hydrology in and around the proposed area:

- Ash Characterisation and Leachate Study (Table 1.1)
- Techno-Economic Feasibility Study for disposal of ash into the Quarry
- Topographical Survey of Pipeline Corridor & Mine Void area
- Feasibility of transportation of ash to mine void
- Geotechnical study of the Pipeline Corridor & Mine Void area
- Pre and post filling mine water quality including leachability of metals (Table 1.1)

## 6.2 Mode of ash transportation to mine void area

One of flowing mode of transport actions of flyash shall be used depending upon the topography of the area:

1. Pipeline using pneumatic conveying system

2. Dumpers/ Trucks
3. Merry Go Round (MGR) System
4. Belt Conveyors in case of dry ash disposal
5. Wet ash (lean slurry or high concentration slurry) through pipeline

### 6.3 Monitoring:

6.3.1 Regular environmental monitoring to be undertaken during the period of disposal of ash into mine void as well as after the reclamation of mine void. The detailed monitoring programme is given in Tables below:

**Table 1.1 : Proposed Monitoring Programme during Disposal of Ash**

Samples	Parameters to be Analysed	Frequency
Ash Samples	Chemical Parameters (%): SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , K <sub>2</sub> O, TiO <sub>2</sub> , CaO, MgO, Na <sub>2</sub> O, P <sub>2</sub> O <sub>5</sub> , SO <sub>3</sub> Trace Elements (mg/kg, using TCLP Test): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn Radio-activity (Bq/kg): <sup>238</sup> U, <sup>236</sup> Ra, <sup>232</sup> Th, <sup>228</sup> Ra, <sup>230</sup> Pb, <sup>40</sup> K, <sup>137</sup> Cs	Once before initiation of filling
Ash Leachate Analysis	Trace Elements (mg/kg, using TCLP Test): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn	Once a year
Piezometer Water Samples	Chemical Parameters (mg/l, except, pH and EC): pH, EC, TDS, Total Alkalinity, Ca, Mg, Na, K, Cl, SO <sub>4</sub> , NO <sub>3</sub> , PO <sub>4</sub> , Trace Elements (mg/l): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn	Monthly
Mine Water Sample	Same as above	Monthly
Ground Water	Same as above	Twice a year - Pre-monsoon and Post-monsoon
Surface Water Samples	Same as above	Twice a year - Pre-monsoon and Post-monsoon
Soil Samples	Texture, type, pH & cation exchange capacity. Trace Elements (mg/l): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn	Once a year

Survey of Flora and Fauna	<ul style="list-style-type: none"> <li>• Listing of Flora (herbs, shrubs and trees) and Fauna (soil invertebrates and other animals) based on field observations and review of information available</li> <li>• Analysis of trace elements in plants (herbs, shrubs and trees), the invertebrates</li> <li>• Analysis of trace elements in aquatic fauna from the mine void filled with fly ash</li> <li>• Bio-accumulation and Bio-magnification tests</li> </ul>	Once in two years
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**Table 1.2: Proposed Monitoring Programme After Reclamation of Mine void**

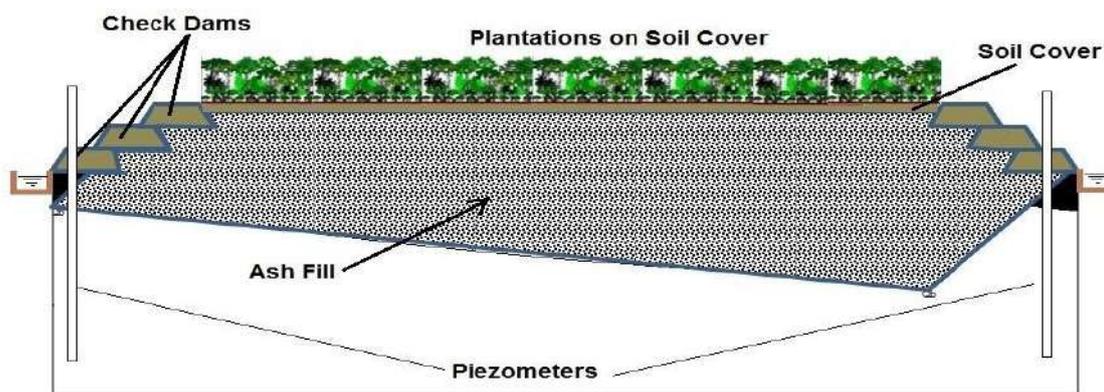
Samples	Parameters to be Analysed	Frequency
Piezometer Water Samples	Chemical Parameters (mg/l, except, pH and EC): pH, EC, TDS, Total Alkalinity, Ca, Mg, Na, K, Cl, SO <sub>4</sub> , NO <sub>3</sub> , PO <sub>4</sub> , Trace Elements (mg/l): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn	Twice a year - Pre-monsoon and Post-monsoon
Ground Water Samples	Same as above	Once a year - Pre-monsoon
Surface Water Samples	Same as above	Once a year - Pre-monsoon
Survey of Flora and Fauna	<ul style="list-style-type: none"> <li>• Listing of Flora (herbs, shrubs and trees) and Fauna (soil invertebrates and other animals) based on field observations and review of information available</li> <li>• Analysis of trace elements in plants (herbs, shrubs and trees), the invertebrates</li> <li>• Analysis of trace elements in aquatic fauna from the mine void filled with fly ash</li> <li>• Bio-accumulation and Bio-magnification tests</li> </ul>	Once in five years

In the event of deterioration of environmental quality, the same will be reported to concerned SPCB immediately and suitable preventive/corrective action will be undertaken.

#### **6.4 Reclamation of Land filled site**

After the quarry is filled to the permitted height as per DGMS, the same shall be provided with a soil cover and plantation shall be done with local fast growing species (preferably trees), to make it a part of the overall

post-mining land use pattern envisaged in the mine closure plan. The design of surface contours and land profile will be in consonance with the surrounding features. A three tier plantation approach (consisting of large trees, smaller trees and shrubs) will be followed for overall eco-restoration of the area. This will also help in checking the surface run-off, preventing the water from percolation and maintaining the aesthetics beauty of the surrounding in general. A conceptual diagram of the reclaimed mine void is presented below.



**Conceptual Plan for Reclamation of Mine Void  
(Drawing not to Scale)**

During the mine void reclamation, the following measures are to be undertaken:

- i. Storm water drains shall be constructed for channelizing the run-off water away from the disposal site.
- ii. A 30 cm thick soil cover shall be provided to promote vegetation growth.
- iii. For plantation purpose, preference shall be given to both native species and mixed culture. The species will be selected carefully from the following groups for quick reclamation under the guidance of a taxonomist:
  - Tree species for fuel wood and timber
  - Forestry type tree species.
  - Tree species with dense foliage for shade.
  - Native species.
- iv. However, fruit bearing species shall be avoided.

## 7.0 Precaution

The following precautionary measures are required for safe working during the reclamation activity:

- (i) Appropriate measures should be taken to prevent entry of cattle/livestock inside the disposal area during execution period.
- (ii) Care shall be taken to avoid any kind of nuisance / inconvenience to the public due to such dumping / filling activities.
- (iii) Water sprinkling for dust suppression during handling of Ash shall be ensured from being air borne.
- (iv) After complete reclamation of the site, sign board shall be kept indicating the low lying land / abandoned quarry has been reclaimed with ash. This will help to propagate the message of mine void using ash.

### **8.0 Regulatory Procedure for Processing the Application for consideration of grant of permission for Reclamation of Low Lying Areas / Abandoned Quarries :**

8.1 The activity of reclamation of Low Lying Areas / Abandoned Quarries will be regulated under the provisions of Water (Prevention and Control of Pollution) Act, 1974 and Air Water (Prevention and Control of Pollution) Act, 1981. The stipulations specified in this guideline is consistent with the provisions of Fly Ash Notification, 1999 and amended thereafter which should be a special condition mentioned in consent order issued under the Water (Water (Prevention and Control of Pollution) Act, 1974 and the Air Water (Prevention and Control of Pollution) Act, 1981. Thereafter any deviations from the guidelines shall be treated as violation of both Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 and action as deemed proper shall be taken under Consent Administration by the Board.

8.2 Necessary clearances shall be obtained from the concerned agencies such as DGMS, SPCB, IBM, MoC, etc .

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## Appendix

### **Guidelines for disposal of flyash in open cast mines along with Over Burden (OB)**

As per notifications 1999 and 2009, "No person or agency shall within fifty kilometres (by road) from coal or lignite based Thermal Power Plants, undertake or approve without using at least 25 % of ash on volume to volume basis of the total materials used for external dump of overburden (OB) and same percentage in upper benches of back filling of opencast mines and this ***shall be done under the guidance of the Director General of Mines Safety (DGMS).***

The methodology as approved by Directorate General of Mine Safety (DGMS) in case of M/s JSPL & JPL (RGR/JPL/P-98(1) &(3)/Flyash/18/2014/1518 dated 31.07.2014) may be referred for filling ash in coal mines. **However, for each case separate approval of methodology from DGMS shall be sought.** Following methodology for disposal of flyash in open cast mines along with Over Burden in case of JSPL was approved by DGMS.

- 1.1 Distance of the internal/overburden dump area from the working faces of mine shall not be less than 100 m.
- 1.2 The area of filling ash shall be specifically earmarked and the same shall be marked on the plan and dumping fly ash shall be carried out accordingly.
- 1.3 Height of each deck shall not be more than 30 m and the total height of the dump shall not exceed 90 m.
- 1.4 The road leading to the dump site for transportation of fly ash shall be independent from the main haul road for transporting OB to the dump site from the mine.

#### **1.5 Method of dumping fly ash**

- 1.5.1 The fly ash shall be dumped in alternate layers/stages, of height not exceeding 5.0 m in each layer/stage.

1.5.2 Initially a row of OB dumps not less than 15.0 m width shall be dumped having height of 5.0 m all around the area proposed for ash dump over a deck (of 30.0 m height) of only overburden dump adequately compacted. A number of such areas shall be formed in a layer/stage wherein the fly ash shall be dumped so that one dump of fly ash is separated by another with 15 m wide over burden dump.

1.5.3 Thereafter, fly ash (25%) and overburden shall be dumped within the area surrounded by such OB dumps. In this manner, the dumping shall be laid in the section/layer of 5.0 m height containing both over burden as well as fly ash so as to form a deck of height not more than 30.0 m , distance between two consecutive decks shall not be less than 30.0 m.

1.5.4 In the next section i.e. immediately above bottom section/stage, only OB dumping shall be made to ensure that the Ash is totally covered and protected from the OB dumps all around.

1.5.5 In the same manner as explained above the alternate layer/section of the over burden and over burden with fly ash shall be dumped. Each layer/stage shall be adequately compacted by dozing.

1.5.6 At the top of the dump i.e. at the final stage, the dump shall be covered with 2.0 m thick soil and adequately compacted by dozing. Adequate precaution against rain fall shall be taken by way of plantation, geo-synthetic, or jute/coir reinforcement and formation of gully drains along the slope of the dump and formation of toe walls and peripheral drains as suggested by the scientific agency conducting geo-technical study. The precaution measures shall periodically be checked for its efficacy.

1.5.7 Plan and section in suitable scale (1:2000) shall be maintained showing the details of the dump both external and interval, height of each deck and dump, distance between the dumps containing fly ash and also the distance from the active working faces, plantation done, gully drains, peripheral drains, toe walls, etc. Such plan shall be signed by the Surveyor and countersigned by the Manager as prescribed in the statute.

1.5.8 Code of practices for transportation, dumping compaction of fly ash as mentioned in para 5(4.2.3 & 5.4.3 of main guidelines), shall be implemented.

#### 1.5.9 **1.6 Dump slope management**

1.6.1 The sides of the OB dumps shall be kept benched and height thereof shall not exceed 30.0 m at an angle of slope not exceeding the angle of repose of the dumped material or 28° whichever is less.

1.6.2 Width of the OB dump shall not be less than 40.0 m which shall also be compacted. The benches shall be laid in such a manner that the overall slope of the dump shall not exceed 21° from horizontal.

1.6.3 The toe of the OB dumps shall be protected or armored in such a manner that the sludge does not flow down into the working faces.

1.6.4 A geotechnical study shall be conducted to assess the stability of the dump and the monitoring of various parameters during the course of dumping and also thereafter till the mine is closed permanently.

**1.7 Dust control measures:** The fly ash dumping including the OB dumps shall be kept moist all the time to prevent ash getting airborne. The quality of the Ash shall be chemically and physically tested at least once in every quarter.

## 1.8 Surface and ground water quality monitoring

1.8.1 The surface and ground water measurement (Chemical Parameters (mg/l): pH, EC, TDS, Total Alkalinity, Ca, Mg, Na, K, Cl, SO<sub>4</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Trace Elements (mg/l): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn) shall be carried out once in a year ( post monsoon) in consultation with the State Pollution Control Board in order to ensure that no harmful heavy metals or any other chemicals pollute the surface or ground water sources or any other water sources present in the area.

**1.9 Provision of check drains** Proper Check Drains/garland drains having width of adequate size and section shall be made around the OB dumps to ensure that the sludge or waste materials along with the ash does not go into any river, nullah, water streams or any other surface water bodies.

1.10 Impact assessment of flora, fauna, aquatic lives and habitat, water & air quality:

1.10.1 A scientific study shall be carried out by an independent scientific organization to study the impact of Ash filling on Flora, Fauna, Aquatic Life and Habitation (once during the filling and at the end of filling).

1.10.2 The Monitoring of all the aforementioned parameters shall be carried out through any accredited institute/organization/Labs and monitoring report shall be submitted to SPCB and DGMS.

1.10.3 A dedicated team of qualified persons headed by senior officer at the level of General Manager shall be established in the mine level, who shall be responsible for the entire ash filling operation, conducting different studies and shall maintain all records as prescribed.

1.10.4 Record of every analysis and study shall be maintained in a bound page register kept for the purpose and the same shall be signed by the person in-charge of the operation and countersigned by the manager of the mine. Records shall also be maintained showing the details about the slope of each dump, quantity of ash filled, quantity of overburden removed, etc.

1.10.5 Risk Analysis about the risk arising out of ash filling operation shall specifically be conducted at regular intervals and Safety Management Plan including the control mechanism shall be prepared as per the guideline contained in DGMS(Tech)(S&T) Circular No.13 of 2002 dated 31.12.2002 and implemented and the same shall be reviewed time to time

1.10.6 In case, any adverse impact is observed, it should be brought to the notice of the DGMS and also to the State Pollution Control Board including the Environment and Forest Ministries of the State and Central Government. No further use of fly ash shall be done in the mine till permitted in writing afresh from DGMS.

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**CONSENT ORDER**  
**DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED**

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**BY REGD. POST WITH AD**

## STATE POLLUTION CONTROL BOARD, ODISHA

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012

Phone-2561909, Fax: 2562822, 2560955 E-mail: [paribesh1@ospcboard.org](mailto:paribesh1@ospcboard.org), Website: [www.ospcboard.org](http://www.ospcboard.org)

### CONSENT ORDER

No. 5124 / IND-I-CON- 6623

Dt. 26.03.2021

**CONSENT ORDER NO. 2846**

**Sub: Consent for discharge of sewage and trade effluent under section 25/26 of Water (PCP) Act, 1974 and for existing / new operation of the plant under section 21 of Air (PCP) Act, 1981.**

**Ref: Your online application No. 2880379, Dated 01-01-2020 & Online reply dated 13.02.2020 & 28.1.2021**

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry: DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED

Name of the Occupier & Designation: SRI CHITTARANJAN BARIK, GENERAL MANAGER.

Address: AT: KHAPURIKACHHAR, PO: SANAGHUMDA, DIST: SUNDARGARH,  
PIN-770013

This consent order is valid for the period from 01.04.2021 to 31.03.2022 .

### Details of Products Manufactured

Sl. No.	Product	Quantity
1.	Coal	7 MTPA

This consent order is valid for the specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.



**CONSENT ORDER**  
DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED

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**A. Discharge permitted through the following outlet subject to the standard**

Out let No.	Description of outlet	Point of discharge	Quantity of discharge KL/hr	Pre-scribed Standard				
				pH	TSS (mg/l)	Oil & Grease (mg/l)	BOD (mg/l)	COD (mg/l)
01	Septic tank (Domestic effluent)	Soak pit	--	5.5 to 9.0	200	--	100	--
02	Mine strata water/ surface runoff/other wastewater	On land/Inland surface waterbody	--	5.5 to 9.0	100	10	--	250

**B. Emission permitted through the following stack subject to the prescribed standard**

Chimney Stack No.	Description of Stack	Stack height (m)	Quantity of emission	Prescribed Standard			
				PM (mg/Nm <sup>3</sup> )	SO <sub>2</sub>	NO <sub>x</sub>	
						--	

**C. Disposal of solid waste permitted in the following manner**

Sl. No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site (TPD)	Quantity to be reused off site (TPD)	Quantity disposed off (TPD)	Description of disposal site.
	Top soil/over burden	As per approved mining plan	--	--	--	As per approved mining plan



**CONSENT ORDER**  
**DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED**

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**D. GENERAL CONDITIONS FOR ALL UNITS**

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
2. The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever.
12. Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
  - a) Industrial cooling, spraying in mine pits or boiler feed,
  - b) Domestic purpose
  - c) Process
13. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
14. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.



## CONSENT ORDER

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### DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED

25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner and to ion of standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
28. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
33. The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as not to cause fugitive emission, dust problems through leaching etc., of any kind.
35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
  - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
  - ii) Controlled incineration, wherever possible in case of combustible organic material.
  - iii) Composting, in case of bio-degradable material.
36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
42. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate

### **GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).**

1. The applicant shall analyse the emissions every month for the parameters indicated in TABLE B & C as mentioned in this order and shall furnish the report thereof to the Board by the 10<sup>th</sup> of the succeeding month.
2. The applicant shall provide and maintain at his own cost three ambient air quality monitoring stations for monitoring Suspended Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-Monoxide and monitor the same once in a day/week/fortnight/month. The data collected shall be maintained in a register and a monthly extract be furnished to the Board.
3. The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall, etc. and the daily reading shall be recorded and the extract sent to the Board once in a month.



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### DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED

4. The applicant shall forward the following information to the Member Secretary, State Pollution Control Board, Orissa, Bhubaneswar regularly.
  - a. Report of analysis of stack monitoring, ambient air quality monitoring meteorological data as required every month.
  - b. Progress on planting of trees quarterly.
5. The applicant shall install mechanical composite sampling equipment and continuous flow measuring / recording devices on the effluent drains of trade as well as domestic effluent. A record of daily discharge shall be maintained.
6. The following information shall be forwarded to the Member Secretary on or before 10<sup>th</sup> of every month.
  - a. Performance / progress of the treatment plant.
  - b. Monthly statement of daily discharge of domestic and/or trade effluent.
7. **Non-compliance with effluent limitations**
  - a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
    - i) Causes of non-compliance
    - i) A description of the non-compliance discharge including its impact on the receiving waters.
    - ii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
    - iii) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
    - iv) Steps to be taken by the applicant too prevent the condition of non-compliance.
  - b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
  - c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.
8. The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analysed at an approval laboratory every month for the parameters indicated in Part-D and shall submit in duplicate the report thereof to the Board.
9. The addition of various treatment chemicals should be done only with mechanical dosers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Crude practices such as dumping of chemicals in drains or sumps or trickling of acids or alkalies arbitrarily and utilizing poles for stirring etc. should not be resorted to.
10. In the disposal of treated effluent on land for irrigation, the industry shall keep in view of the need for;
  - Rotation of crops
  - Change of point of application of effluent on land
  - A portion of land kept fallow.
11. The adoption of these would avoid soil becoming sick or slate, the industry may ensure this in consultation with the Agriculture Department.
12. It is the sole responsibility of the industry to ensure that there are no complaints at any time from the royats in the surrounding areas as a result of discharge of sewage or trade effluent if any.
13. Proper housekeeping shall be maintained by a dedicated team.
14. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned. Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.



**CONSENT ORDER**  
**DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED**

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**E. SPECIAL CONDITIONS:**

- 1) Mining operation is subject to availability of all other statutory clearances required under relevant Acts/Rules.
  - 2) The coal transport shall be done in accordance to the permissions from MoEF & CC, Govt. of India. An undertaking to this effect shall be submitted to the Board within 07 days from date of issue of this Consent Order.
  - 3) Excavation of coal shall be done using surface miners. The surface miner shall be operated along with dust control measures.
  - 4) Drills shall either be operated with dust extractors or equipped with water injection system to minimize dust generation in the work environment. Controlled blasting shall also be done and blasting shall be carried out during day time.
  - 5) Coal handling plant/ Crusher unit shall be operated with adequate dust extraction system or dry fog system for dust suppression. Loading, unloading areas and conveyor systems including all transfer points and coal stack yard shall have adequate dust suppression measures. The pollution control systems shall be properly maintained and operated.
  - 6) All internal coal transportation roads shall be black topped/concreted. Necessary dust suppression measures shall also be taken in these roads to prevent generation of dust during movement of vehicles. Plantation of thick leaf trees on both sides of the road shall be done.
  - 7) Mobile water sprinkling shall be provided for dust suppression on the temporary quarry haul roads and sprinkling of water shall be done at desired intervals so as to prevent generation of fugitive dust.
  - 8) All internal coal transportation roads, temporary mine haul roads and other material transportation roads of the mine shall be maintained properly to avoid creation of ruts and pot holes.
  - 9) Coal transportation through roads shall be done in covered vehicles.
-



## CONSENT ORDER

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DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED

- 10) Instant water shower system at the exit point of the quarry shall be provided by 31.7.2021 and all heavy vehicles loaded with coal shall move through the instant shower system. Mechanized wheel washing facility for coal transport vehicles at the exit point of the quarry or at the coal stack yard as per the requirement shall be provided, if coal transportation carried out by road. The wheel washing facility shall be integrated with complete recirculation system.
- 11) All necessary precaution shall be taken to prevent fire in coal stack yards and coal seams. Necessary precautionary measures shall be taken for maintaining a minimum stock to avoid fire hazards in the coal stack yard.
- 12) Ambient air quality measured at a distance of 500m from the dust generating sources {Loading or un-loading, haul road, coal transportation road, coal handling plant (CHP), Railway siding, Blasting, Drilling, overburden dumps or any other dust generating source like nearby roads etc.} in the down wind direction shall meet the following standards.
- | Pollutant             | Concentration in (microgram/m <sup>3</sup> ) (24 hourly) |
|-----------------------|----------------------------------------------------------|
| <b>SPM</b>            | <b>- 500</b>                                             |
| <b>RPM</b>            | <b>- 250</b>                                             |
| <b>SO<sub>2</sub></b> | <b>- 120</b>                                             |
| <b>NO<sub>x</sub></b> | <b>- 120</b>                                             |
- In case any residential or commercial or industrial place falls within 500 metres of any generating sources, the National Ambient Air Quality Standards for industrial area notified shall be applicable.
- 13) Adequate Ambient Air Quality Monitoring Stations (at least 04 nos.) shall be established in core as well as in buffer zone and locations shall be decided in consultation with the Regional Officer, State Pollution Control Board. Monitoring of parameters shall as SPM, PM<sub>10</sub>, PM<sub>25</sub>, SO<sub>2</sub> and NO<sub>x</sub> shall be done.
- 14) Monitoring of Ambient Air Quality of the mine shall be done once in a fortnight (24 hourly) and consolidated data shall be submitted to the State Pollution Control Board once in a year.
- 15) Action shall be taken for installation of continuous real time ambient air quality monitoring stations at appropriate locations keeping in view the criteria specified for coal mines in Environment (P) Rules, 1986/Standards specified in the consent order.
-



**CONSENT ORDER**  
**DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED**

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Number and location of continuous online monitoring stations with data transfer facility to SPCB server shall be decided in consultation with the Regional Officer, SPCB.

- 16) The surface runoff generated from the mining area during monsoon shall be diverted to adequate size of sedimentation pond for storage and use. Systems shall be in place for collection and channelizing the surface runoff to the sedimentation pond.
- 17) Strata water generated during mining operation shall be diverted to adequate size of sedimentation pond or mine sump for storage and use.
- 18) Water from sedimentation pond or mine sump shall be used for sprinkling purposes on haulage roads and other dust generating areas, vehicle washing and plantation activities.
- 19) Quantification of surface runoff and other wastewater generated in the mine shall be done and report on runoff management practice as well as wastewater management practices shall be furnished to the Board before the start of monsoon every year. The report of runoff management practices shall be submitted along with a map indicating the flow direction of runoff and management systems.
- 20) Acid mine drainage water if any, shall be treated adequately and used only for sprinkling activity.
- 21) Workshop from where water pollution due to wash out of oil and grease and suspended solids is expected, Effluent Treatment Plant (ETP) shall be operated at all the time and the quality of the treated wastewater shall remain within the following standards and shall be re-used for washing of vehicles:
- |              |   |          |
|--------------|---|----------|
| pH           | - | 6.5 -8.5 |
| TSS          | - | 50 mg/l  |
| Oil & grease | - | 10 mg/l  |
| COD          | - | 150 mg/l |
- No wastewater from workshop shall be allowed to be discharged to outside under any circumstances.
- 22) Domestic effluents shall be treated in a sewage treatment plant (STP) and or shall be discharged to soak pit via septic tank constructed as BIS specification. The treated wastewater quality of STP shall remain within the following standards and shall be used for plantation:
- |     |   |           |
|-----|---|-----------|
| pH  | - | 6.5 -9.0  |
| TSS | - | <100 mg/l |
| BOD | - | 30 mg/l   |

**CONSENT ORDER**

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DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED

Fecal Coliform - &lt;1000 MPN/100 ml.

- 23) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells. The monitoring should be done four times a year in pre-monsoon (April/May), monsoon (August), post-monsoon (November) and winter (January) seasons. Data thus collected should be submitted to the Board annually.
  - 24) The top soil and overburden shall be removed separately and stored it in separate heaps, duly covered with grass and vegetation and shall be utilized for backfilling of mined out area in future.
  - 25) Action shall be taken for removal of residual coal going along with over burden so that spontaneous fire in the dump site can be eliminated. Water sprinkling arrangements shall also be provided at the coal seam faces and active dump sites to control fire.
  - 26) Adequate measures shall be taken for control of noise levels below the following limits.  
(6.00 AM - 10.00 PM) - Leq 75 dB(A)  
(10.00PM - 6.00 AM) - Leq 70 dB(A)
  - 27) The mine shall take up remedial actions for the following jobs;
    - a. Expeditious steps shall be taken for installation CAAQMS by 31.7.2021.
    - b. Till the silo and wagon loading system is made ready, adequate water sprinkling facility shall be developed at coal stockyards and MGR railway siding through pressurized water spray system with rain guns and fog canons for suppression of fugitive dust and firefighting activity. This shall be done by 30.4.2021.
    - c. Vertical greenery system or wind barriers shall be provided at the MGR siding and coal stock yards by 31.12.2021.
  - 28) Ambient air quality monitoring data, noise monitoring data and wastewater quality monitoring data shall be electronically displayed at the entry point of the mine or at a suitable location of the mine.
  - 29) IP cameras shall be installed at major dust prone areas of the mine such as coal face, coal stockyards, coal haul roads, transportation roads, railway sidings, etc. and they shall be connected SPCB server.
-



## CONSENT ORDER

Page 10 of 14

DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED

- 30) Plantation of trees shall be undertaken in the colony/ township, over top soil dumps, OB dumps, along the side of haul road and in other areas of the mines not being utilized for mining activities. The mine shall take up avenue plantation and plantation in nearby village areas in consultation with DFO/Horticulture Department. The plantation details shall be submitted to the Board before end of April every year.
- 31) The annual coal production status shall be submitted to the Board latest by 30th April every year.
- 32) The environmental statement report for the financial year ending 31st March shall be submitted to the Board in Form-V on or before 30th September every year.

**MEMBER SECRETARY  
STATE POLLUTION CONTROL BOARD, ODISHA**

To,

**SRI CHITTARANJAN BARIK, GENERAL MANAGER,  
DULANGA COAL MINING PROJECT OF M/S. NTPC LTD.,  
2<sup>ND</sup> FLOOR, MEGH MALLAHAR, MISSION ROAD,  
DIST: SUNDARGARH, PIN-770001**

Memo No. \_\_\_\_\_ /Dt. \_\_\_\_\_ /

Copy forwarded to :

- i) Regional Officer, State Pollution Control Board, **Jharsuguda.**
- ii) District Collector, **Sundargarh**
- iii) Director of Mines, Govt. of Odisha, Bhubaneswar
- iv) Director, Environment-cum-Special Secretary, F & E. Dept. Govt. of Odisha, Bhubaneswar.
- v) D.F.O , **Sundargarh**
- vi) Deputy Director of Mines, **Rourkela**
- vii) Chief Env. Engineer, (Hazardous waste management cell)
- viii) Chief Env. Scientist, Central Lab. SPCB, Bhubaneswar
- ix) Consent Register

**CHIEF ENV. ENGINEER (M)  
STATE POLLUTION CONTROL BOARD, ODISHA**



**CONSENT ORDER**  
**DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED**

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**GENERAL STANDARDS FOR DISCHARGE OF  
ENVIRONMENTAL POLLUTANTS**

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**CONSENT ORDER**  
**DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED**  
**GENERAL STANDARDS FOR DISCHARGE OF**  
**ENVIRONMENTAL POLLUTANTS PART -A : EFFLUENTS**

Sl.No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
		(a)	(b)	(c)	(d)
1.	Colour & odour	Colourless/Odourless as far as practicable	-----	See 6 of Annex-1	See 6 of Annex-1
2.	Suspended Solids (mg/l)	100	600	200	For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850	-----	-----	
5.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	Shall not exceed 5°C above the receiving water temperature	-----	-----	Shall not exceed 5°C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	----	-----	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	-----	50
10.	Total Kjeldahl nitrogen (as NH <sub>3</sub> ) mg/1 max.	100	----	-----	100
11.	Free ammonia (as NH <sub>3</sub> ) mg/1 max.	5.0	----	-----	5.0
12.	Biochemical Oxygen Demand (5 days at 20°C) mg/1 max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/1 max.	250	----	-----	250
14.	Arsenic (as As) mg/1 max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/1 max.	0.01	0.01	-----	0.001
16.	Lead (as pb) mg/1 max.	01.	1.0	-----	2.0



### CONSENT ORDER

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DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED

17.	Cardmium (as Cd) mg/l max.	2.0	1.0	-----	2.0
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	-----	1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0	-----	2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0	-----	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	-----	15
22.	Selenium (as Sc) mg/l max.	0.05	0.05	-----	0.05
23.	Nickel (as Nil) mg/l max.	3.0	3.0	-----	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride ( as F) mg/l max.	2.0	15	-----	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	-----	-----	-----
27.	Sulphide (as S) mg/l max.	2.0	-----	-----	5.0
28.	Phennolic compounds as (C <sub>6</sub> H <sub>5</sub> OH) mg/l max.	1.0	5.0	-----	5.0
29.	Radioactive materials a. Alpha emitter micro curle/ml. b. Beta emitter micro curle/ml.	10 <sup>7</sup> 10 <sup>6</sup>	10 <sup>7</sup> 10 <sup>6</sup>	10 <sup>8</sup> 10 <sup>7</sup>	10 <sup>7</sup> 10 <sup>6</sup>
30.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31.	Manganese (as Mn)	2 mg/l	2 mg/l	-----	2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	-----	3 mg/l
33.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	-----	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l	-----	-----	20 mg/l



**CONSENT ORDER**  
**DULANGA COAL MINING PROJECT OF M/S. NTPC LIMITED**  
**NATIONAL AMBIENT AIR QUALITY STANDARDS**

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Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Annual * 24 Hours **	50 80	20 80	-Improved west and Gaeke - Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Annual * 24 Hours **	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3.	Particulate Matter (size less than 10µm) or PM <sub>10</sub> µg/m <sup>3</sup>	Annual * 24 Hours **	60 100	60 100	- Gravimetric - TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub> µg/m <sup>3</sup>	Annual * 24 Hours **	40 60	40 60	- Gravimetric - TOEM - Beta Attenuation
5.	Ozone (O <sub>3</sub> ) µg/m <sup>3</sup>	8 Hours ** 1 Hours **	100 180	100 180	- UV Photometric - Chemiluminescence - Chemical Method
6.	Lead (Pb) µg/m <sup>3</sup>	Annual * 24 Hours **	0.50 1.0	0.50 1.0	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m <sup>3</sup>	8 Hours ** 1 Hours **	02 04	02 04	- Non Dispersive Infra Red (NDIR) Spectroscopy
8.	Ammonia (NH <sub>3</sub> ) µg/m <sup>3</sup>	Annual* 24 Hours**	100 400	100 400	-Chemiluminescence - Indophenol Blue Method
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) µg/m <sup>3</sup>	Annul *	05	05	-Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)- Particulate phase only, ng/m <sup>3</sup>	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m <sup>3</sup>	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni), ng/m <sup>3</sup>	Annual*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\* 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

4.0 During the period of Interim Arrangement, as stipulated at clause 8.5 of Project Agreement, n<sup>th</sup> Operating year shall mean n<sup>th</sup> Operating year as per Interim Rolling Production Plan prepared in accordance with clause 15 (a) of Schedule 2 of Project Agreement. **(Reference Amendment No.2 Sl. No.11)**

### Schedule 12- Joint Operating Agreement

Project Agreement for Development and Operation of Dulanga Coal Block Page 176 of 190

*S. Mallick*  
सोमनाथ मल्लिक/SOMNATH MALLICK  
अपर महाप्रबन्धक (संविदा सेवाएं)  
Addl. General Manager (CS)  
एन टी पी सी लिमिटेड/NTPC LIMITED  
EOC, A-8A, Sector-24, Noida-201 301

For Sainik Mining And Allied Services Ltd.  
*[Signature]*  
Authorised Signatory

F.No NA-710/5/2018-NA  
Government of India  
Ministry of Coal  
Office of Nominated Authority

\*\*\*\*\*

120-F, Shastri Bhawan, New Delhi .

Dated: the 19th July, 2021

**OFFICE MEMORANDUM**

**Sub: Relaxation under the event of Force Majeure due to 2<sup>nd</sup> wave of COVID pandemic.**

In view of Force Majeure request in line with the Allotment Agreement/ Coal Mine Development And Production Agreement received by the Nominated Authority seeking relaxation in efficiency parameters; the Competent Authority is pleased to grant relaxation of three months in the efficiency parameters as detailed below:

- a. For operational coal mine: Relaxation of **3 months** i.e. the production schedule as per Mine Plan will be adjusted on pro-rata basis for the Financial Year 2021-22.
  - b. For non-operational coal mine: Relaxation of **3 months** in the timelines of all the Efficiency Parameters whose due date of achievement falls on or after 1<sup>st</sup> April, 2021 .
2. This is for your kind information and needful please.



(Manish Uniyal)

Under Secretary to Government of India

011-23384106

To  
List of Allocattee as Annexed

Sl. No.	Mine	State	Successful allocattee	Force Majeure Request received
1	Belgaon	Maharashtra	Sunflag Iron and Steel Ltd	Yes
2	Takli-Jena-Bellora (North) & Takli-Jena-Bellora (South)	Maharashtra	Aurobindo Reality And Infrastructure Private Limited	Yes
3	Marki Mangli II	Maharashtra	Yazdani International Private Limited	Yes
4	Dhirauli	Madhya Pradesh	Stratatech Mineral Resources Private Limited	Yes
5	Urtan	Madhya Pradesh	JMS Mining Private Limited	Yes
6	Urtan North	Madhya Pradesh	JMS Mining Private Limited	Yes
7	Bandha	Madhya Pradesh	EMIL Mines And Mineral Resources Limited	Yes
8	Sahapur East	Madhya Pradesh	Chowgule And Company Private Limited	Yes
9	Suliyari	Madhya Pradesh	APMDCL	Yes
10	Bikram	Madhya Pradesh	Birla Corp. Ltd	Yes
11	Brahampuri	Madhya Pradesh	Birla Corp. Ltd	Yes
12	SialGhoghri	Madhya Pradesh	Reliance Cement Company Private Limited	Yes
13	Sahapur West	Madhya Pradesh	Sarda Energy And Minerals Limited	Yes
14	Chotia	Chhattisgarh	BALCO	Yes
15	Gare Palma IV/8	Chhattisgarh	Ambuja Cements	Yes
16	Talaipalli	Chhattisgarh	NTPC	Yes
17	Gidhmuri & Paturia	Chhattisgarh	Chhattisgarh State Power Generation Co. Ltd.	Yes
18	Gare Palma IV/7	Chhattisgarh	Sarda Energy & Minerals Limited	Yes
19	Gare Palma Sector -II	Chhattisgarh	Maharashtra State Power Generation Co. Ltd. (Mahagenco)	Yes
20	Jamkhani	Odisha	Vedanta	Yes
21	Radhikapur (East)	Odisha	EMIL Mines and Mineral Resources Limited	Yes
22	Dulanga	Odisha	NTPC	Yes
23	New Patrapara	Odisha	NTPC	Yes
24	Khagra Joydev	West Bengal	DVC	Yes
25	Moitra	Jharkhand	JSW STEEL LIMITED	Yes
26	Kotre basantpur & Pachmo	Jharkhand	CCL	Yes
27	Brahmdiha	Jharkhand	Andhra Pradesh Mineral Development Corporation Ltd	Yes
28	Chakla	Jharkhand	HINDALCO INDUSTRIES LIMITED	Yes
29	Rajhara North (Central & Eastern)	Jharkhand	Fairmine Carbons Pvt Ltd	Yes
30	Gondulpara	Jharkhand	Adani Enterprises Ltd	Yes
31	Urma Paharitola	Jharkhand	Aurobindo Reality And Infrastructure Private Limited	Yes

## 280129/2021/Nominated Authority

Sl. No.	Mine	State	Successful allocattee	Force Majeure Request received
32	Amarkonda Murga Dangal	Jharkhand	ECL	Yes
33	Brahmini & Chichro Parsimal	Jharkhand	ECL	Yes
34	Badam	Jharkhand	Bihar State Power Generation Co Ltd	Yes
35	Banhardih	Jharkhand	Jharkhand Urja Utpadan Nigam Ltd	Yes
36	Tubeled	Jharkhand	DVC	Yes
37	Chatti Bariatu, Chatti Bariatu South	Jharkhand	NTPC Ltd	Yes
38	Kerandari	Jharkhand	NTPC Ltd	Yes
39	Rajbar D & E	Jharkhand	Tenughat Vidyut Nigam Ltd	Yes
40	Tokisud North	Jharkhand	NMDC Ltd.	Yes
41	Pachhwara Central	Jharkhand	Punjab State Power Corp Ltd	Yes
42	Dumri	Jharkhand	HINDALCO	Yes
43	Kathautia	Jharkhand	HINDALCO	Yes
44	Saharpur Jamarpani	Jharkhand	UP Rajya Vidyut Utpadan Nigam Ltd	Yes

## Chapter 8 - Annexures

## 8.1 Annexure I – Proposed Phasing Schedule

The phasing schedule has been taken as per the capital expenditure schedule provided by NTPC.

(Rs. crore)

S No	Year	Cost component	Total cost	C1	C2	P1	P2	P3	P4	P5
1		Mining land	202.15	99.67	11.39	34.16	34.16	22.78	-	-
2		Other land	171.25	106.79	7.16	21.48	21.48	14.32	-	-
3		Buildings	41.63	8.91	11.07	11.20	4.60	3.86	1.86	0.12
4		P&M HEMM	-	-	-	-	-	-	-	-
5		P&M Non-HEMM	0.58	0.23	0.17	0.17	-	-	-	-
6		Furniture & Fittings	0.32	0.03	0.03	0.06	0.06	0.06	0.06	-
7		Railway Siding	-	-	-	-	-	-	-	-
8		Vehicles	2.95	0.59	0.74	0.79	0.60	0.14	0.09	-
9		Prospecting, Boring and Drilling	3.97	0.09	3.88	-	-	-	-	-
10		Mine Development	487.19	71.52	66.12	134.76	120.55	94.24	0.01	-
		<b>Total hard costs</b>	<b>910.05</b>	<b>287.83</b>	<b>100.56</b>	<b>202.64</b>	<b>181.46</b>	<b>135.41</b>	<b>2.04</b>	<b>0.12</b>
11		Expenditure during development	82.82	67.48	15.34	-	-	-	-	-
12		IDC	51.00	14.96	36.05	-	-	-	-	-
13		FC	1.83	1.30	0.53	-	-	-	-	-
		<b>Total soft Costs</b>	<b>135.66</b>	<b>83.74</b>	<b>51.92</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
		<b>Total cost</b>	<b>1,045.70</b>	<b>371.57</b>	<b>152.48</b>	<b>202.64</b>	<b>181.46</b>	<b>135.41</b>	<b>2.04</b>	<b>0.12</b>
		<b>Accumulated Cost</b>		<b>371.57</b>	<b>524.05</b>	<b>726.69</b>	<b>908.14</b>	<b>1,043.55</b>	<b>1,045.58</b>	<b>1,045.70</b>

- (a) the types, quantities and uses of all hazardous materials the Mine Operator shall have on site,
- (b) the types and quantities of all hazardous wastes the Mine Operator shall generate on site, and
- (c) the Mine Operator's safety programme for storing, handling and disposing of such materials in a safe, secure, and legal manner in compliance with all current laws, rules and regulations. Safety data sheets on each hazardous material brought on the Site shall be given to the Owner within one month

### 9.8. Wildlife and Vegetation Preservation

The Mine Operator shall provide instructions and briefings to all personnel to prevent unnecessary losses of wildlife and vegetation. No hunting, camping or open fires shall be permitted on site without special written permission from the Owner. Access road speed limits must be obeyed to minimize road kill. No vehicles shall be driven off established roads other than for occasional use directly for Project purposes. In such cases, off-track travel shall not use previously used tracks thus minimizing vegetation damage. The Mine Operator shall provide suitable fencing around the mining area so as to prevent entry or inadvertent falling of animals into the mine void.

### 9.9. Sustainable Development: Post-Mine Land Use

Mine Operator is responsible for progressive mine closure during the term of the agreement in accordance with approved Mine Closure Plan

Final Mine Closure activities are not envisaged in the scope of Mine Operator

NTPC will deposit the amount in "Escrow Account" with statutory authorities towards mine closure expenses.

Mine Operator shall submit the extend of protective and rehabilitative works carried out as envisaged in the approved Mine Closure plan along with the physical progress of closure activities and expenses incurred to the owner on yearly basis as per the provision of guidelines issued by MoC in this regard. **(Reference Errata No. 03 Sl. No. 7)**

The Mine operator shall also be responsible for bringing the OB dump along the western side of an area of 244 ha to Ground level for post mining land use by re-handling of 112 MCuM of OB in 5 years of time( maximum) after end of Mine life. It is further clarified that OB re handling term is not a part of Progressive Mine Closure, It is for the purpose of void reduction as per the stipulation of MOEF.

**OB Re-handling Quantity:** The MDO is required to re-handle 112 million m<sup>3</sup> quantity of OB. Re-handling of Overburden shall not be considered for the calculation of stripping ratio.

F. No. 34011/28/2019-CPAM

Government of India

Ministry of Coal

Shastri Bhawan, New Delhi

The 29<sup>th</sup> May 2020Office Memorandum

**Subject: Guidelines for Preparation, Formulation, Submission, Processing, Scrutiny, Approval and Revision of Mining plan for the coal and lignite blocks.**

Undersigned is directed to state that the guidelines for formulation of Mining plan and Mine Closure Plan has been amended. It has been decided by the Government that all coal (including lignite) mining operations in India shall henceforth be governed as per modified guidelines enumerated below.

1. **Mining Plan:** All coal (including Lignite) mining operation in India shall henceforth be governed as per these modified guidelines listed below and henceforth, the Mine Closure Plan and Final Mine Closure Plan shall be integral part of Mining Plan. Separate approval of Mine Closure Plan/ Final Closure Plan has been done away with. The Guideline/format for formulation of Mining plan is enumerated at **Appendix – I**.
  - 1.1. **Implementation of the approved Mining Plans shall be sole responsibility of the mine owner.** Mining operations shall be undertaken in accordance with the duly approved mining plan. The mining plan once approved shall be valid for the balance life of the Mine, provided that any modification(s) of the mining plan is approved by the competent authority and such approval of the modified mining plan shall remain valid for the estimate balance life of the mining plan. Modification of the approved mining plan during the operation of a mining lease also requires prior approval.
  - 1.2. The mining plan shall cover prescription for different phases of life of the mine as stage plan. The Stage plan for 1st year, 3rd year, 5th year, year of achieving rated capacity of the mine, Final year (i.e. at the end of mine life) and post closure shall be submitted at the time of initial submission of mining plan. The project proponent shall submit a **report/information** consisting **a.** compliance status with respect to approval condition of mining plan and grounds specified at para 1.3A; **b.** stage plan for next five years; **c.** revised balance life of the mine; and **d.** revised calculation of ESCROW amount with respect to revised balance life, to Coal Controller, CCO, Kolkata with a copy of the same to Administrative Section dealing with the allocation/allotment of the block and section dealing with approval of mining plan at MoC/CCO, **for information**. Such report/information must be submitted at least 180(one hundred eighty) days before the expiry of 5 (five) year, starting from the commencement of the Mineral Concession (Amendment) Rules, 2020 or the date of execution of the duly executed mining lease deed, whichever is later. Information desired above must bear certificate of **Qualified Person/ Accredited Mining Plan preparing Agency** and have approval of the respective company board. Non submission of such information during the stipulated time may result in withdrawal of mine opening permission or cancellation of the approved mining plan, as may be decided by CCO.
- The Mining Plan approved prior to issue of this Guideline will qualify for submission of such report/information at least 180(one hundred eighty) days prior to expiry of 5 (five) year from the date of notification of the Mineral Concession Amendment Rules 2020.
- 1.3.(A) The mining plan may be modified for **a.** for change in method of mining; **b.** for facilitating increase in sanctioned peak capacity that is in excess of one hundred and fifty per cent of the



sanctioned rated capacity; **c.** change in leased area; **d.** in the interest of safe and scientific mining; **e.** conservation of minerals; **f.** for the protection of environment; **g.** addition of reserve by way of proving of reserve in the existing lease area; **h.** for changes in final mine closure conditions; or **i.** and such other change that may be determined by the Central Government. While submission of revision/ modification of mining plan the reason for revision/ modification shall be specified in writing by the lessee.

- (B) Notwithstanding anything contained in clause (A) above, for other minor changes, the project proponent is empowered to make modification with the approval of the respective company board. These minor changes shall cover **a.** changes in land type within the leased area; **b.** changes in HEMM deployment plan; and **c.** changes in location of infrastructure within the leased area. The project proponent shall submit specific report of such minor changes to Coal Controller, CCO, Kolkata with a copy of the same to Administrative Section dealing with the allocation/allotment of the block and section dealing with approval of mining plan at MoC/CCO, for information.
- 1.4. The Mining Plan submitted for approval shall have prior approval of the concerned Board of the Company.
- 1.5. The base date of the Mining Plan should be taken as cut-off date on which the extractable reserve, balance life etc. has been quantified.
- 1.6. The proposed leased area in the Mining Plan shall include the area specified in the mining lease within which mining operations can be undertaken and includes the non-mineralized area required and approved for the activities falling under the definition of mine as referred in The Mines Act 1952. Evacuation route, R&R and Employee Township area outside the block will not be part of the Mining plan.
- 1.7. Pre-mining land ownership/land type furnished in the mining plan will be of indicative in nature along with data source at its footnote (viz. from topo sheet, cadastral plan etc.).
- 1.8. The excavation/ mining area envisages in the mining plan must be restricted within the allotted/vested geological block boundary/existing mining lease and if the project area is confined within the allotted block boundary/existing mining lease, a certificate to this effect is to be provided by the **Qualified Person/ Accredited Mining Plan preparing Agency** preparing the mining plan. The certificate must be made on the Conceptual Plan depicting Cardinal Point Co-ordinates (shape co-ordinates) of the project boundary, Lease boundary and Geological Block boundary (binding co-ordinates given in the vesting order).
- 1.9. Under provisions of Rule 16 of MCR 1960, State Government is custodian of the exploration data. As such in the cases, where the project area extends beyond the block boundary/existing mining lease the Mines and Geology Department of the concerned State Government shall issue a certificate specifying (a) intent of the State Government for grant of lease beyond the vested geological boundary; (b) non-existence of coal/ lignite in the area beyond the vested/allotted geological block boundary/existing mining lease to rule out the issue of encroachment. The application for issue of certificate from the Mines and Geology Department of the State Government must be supported with proof of the non-existence of coal/lignite in the area under reference (along with their Cardinal Point coordinates) duly certified by custodian agency viz. CMPDIL/ SCCL in case of coal and NLCIL in case of lignite.
- Where the project area extends beyond the block boundary/existing mining lease, the certificate issued by the Mines and Geology Department of the concerned State Government must be attached in the Mining Plan.
- 1.10. In case of allotted/auctioned coal/lignite blocks, the mining plan may be revised for extraction of more coal on year to year basis.

Provided that the mining plan shall be revised for extraction of less coal on year on year basis only under following circumstances: a. if the remaining extractable reserve of the coal mine is less than

3(three) times of the rated Capacity of the current Approved Mining Plan; b. Change in method of mining from Opencast to Underground necessitated due to change in geo-mining conditions. However, revision of Mining Plan for extraction of less coal would be subject to prior approval of the Nominated Authority.

- 1.11. The approval of the revised Mining Plan shall not result in changes in the terms and conditions or efficiency parameters mentioned in the CMDPA/Allotment Agreement signed at the time of allotment/vesting for the auctioned/allotted blocks without prior approval of the nominated authority or Central Government, as the case may be. However, efficiency parameters mentioned in the CMDPA/Allotment Agreement shall be linked to the rated capacity of the mine.
- 1.12. The project proponent shall envisage the action plan for exploration and liquidation of the balance reserve yet to be projectised.
- 1.13. The project proponent shall take all necessary precautions regarding safety of mine workings and persons deployed therein and shall adhere to all the statutory clearances with regards to safety.
- 1.14. Proposed project area envisaged in the mining plan shall not encroach into any other adjacent coal block unless permitted to do so by the Ministry of Coal in writing.
- 1.15. The approval of the Mining Plan is without prejudice to the requirement of approvals from competent /prescribed authority under the relevant rules/ regulations etc.
- 1.16. The project proponent shall submit an undertaking that the mine shall be operated as per the Environment Clearance (EC) & Forestry Clearance (FC) for the project.
- 1.17. **Statutory Obligation:** The legal obligations, if any, which the lessee is bound to implement, like special conditions imposed while execution of lease deed, approval of Mining Plan, conditions imposed by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Central Pollution Control Board (CPCB), State Pollution Control Board (SPCB), Directorate General of Mines Safety (DGMS) or any other organizations describing the nature of conditions and compliance positions thereof, should be indicated in the Mining Plan.
2. **Mine closure Plans:** Mine Closure Plans will have two components viz. i) Progressive or Concurrent Mine Closure Plan, and ii) Final Mine Closure Plan. Progressive Mine Closure Plan would include various land use activities to be done continuously and sequentially during the entire period of the mining operations, whereas the Final Mine Closure activities would start towards the end of mine life, and may continue even after the reserves are exhausted and/or mining is discontinued till the mining area is restored to an acceptable level. The Mine closure details of the Mining Plan should be oriented towards the restoration of land back to its original as far as practicable or further improved condition.
  - 2.1. Mining is to be carried out in a phased manner along with reclamation and afforestation work in the mined-out area.
  - 2.2. Progressive mine closure plan shall be prepared for a period of every five years from the beginning of the mining operations. These plans would be examined periodically in every five years period and to be subjected to third party monitoring by the agencies approved by the Central Government, like Central Mine Planning and Design Institute Ltd. (CMPDIL), National Environmental Engineering Research Institute (NEERI), Indian Institute of Technology (IIT-ISM) or any other institutes/ organizations/ agencies specified from time to time for the purpose.
  - 2.3. Various project specific activities viz. mined-out land details & their technical and biological restoration plan, water quality management, infrastructure to be retained and demolished, disposal of mining machinery, etc. shall be furnished in the relevant paras. Where the backfilling of the mine void is being carried out as part of regular mining operation, it shall not be included in the list of progressive mine closure activities. However, in case, where the backfilling of mine void is to be carried out specifically for closure of the mine, quantum of such overburden and the mine closure fund earmarked for the purpose must be included in the list of activities to be taken up for mine closure in the mining plan at the time of submission itself.

- 2.4. The Government may at any time before the closure of mine require certain activities to be included in the mine closure plans, which it may consider necessary for the safety and conservation of environment, or in compliance with any modification/ amendment in the relevant legislation.
- 2.5. **Abandonment cost:** The total cost for carrying out such activities shall be estimated for assessment of abandonment cost of the mine involving progressive and final mine closure activities such as barbed wire fencing all around the working area, dismantling of structures/demolition and cleaning of sites, rehabilitation of mining machinery, plantation, physical/biological reclamation, landscaping, biological reclamation of left-out overburden dump, filling up of de-coaled void, post environmental monitoring, supervision charges, power cost, protective and rehabilitation measures including their maintenance and monitoring, miscellaneous charges etc. for the specified post closure period.
- 2.6. **Escrow Account Calculation:** In August 2009 it was estimated that typically closure cost for an opencast mine was around rupees six lakhs per hectare of the total project area and rupees one lakh per hectare for underground project area at the-then price level. Accordingly vide letter dated 7<sup>th</sup> January 2013 a guideline for mine closure was issued which needed modification in these rates based on the wholesale price index (WPI) as notified by Government of India from time to time while preparing the Mining plan and Mine Closure Plan. The escalated rate (based on the current base year i.e. 01.04.2019) is Rupees Nine Lakh per hectare in opencast and Rupees one lakh fifty thousand per hectare for underground Mine. These rates will be considered as Base Rate to be applicable from 01.04.2019, which may change as specified from time to time by the Government of India.
- [Exemplary Calculation:  $\{(Rs\ 6\ lakhs \times 1.561\ linking\ factor\ for\ base\ year\ 2004-05 \times WPI\ 121.1\ as\ on\ April\ 2019) / (WPI\ as\ on\ August\ 2009)\} = Rupees\ 8.75\ lakh, rounded\ to\ Rupees\ 9\ (nine)\ lakhs\ per\ hectare\ in\ case\ of\ Opencast\ project\}$ ]*
- Henceforth, these rates will stand modified based on the wholesale price index (WPI) as notified by Government of India from time to time. Annual closure cost is to be computed considering the total project area of the mine multiplied by escalated rate (at the above mentioned rates) and dividing the same by the balance life of the mine in years. An amount equal to the annual cost is to be deposited each year throughout the mine life compounded @5% annually.
- [For example if the annual cost works out to Rs 100, then in the first year the amount to be deposited will be Rs 100, in the second year  $100 \times (1+5\%)^1$ , in the third year  $100 \times (1+5\%)^2$  and so on.]*
- Further, in case of the mine, where escrow account is already open, the annual closure cost is to be computed considering the total project area at the above mentioned rates minus the amount already deposited and dividing the same by the balance life of the mine in years and annual cost as arrived should be compounded @5% annually.
- 2.7. **Financial Assurance:** The Mining Company/ Mine Owner as a part of Financial Assurance will open a Fixed Deposit Escrow account, with the Coal Controller Organization (on behalf of the Central Government) as exclusive beneficiary prior to commencement of any activities on the land/project area of the mine and shall submit the same to Coal Controller Organization (CCO) before the permission is given for opening the mine. The mining company shall cause the payment to be deposited at the rate computed as indicated at Para 2.6. The owner of the company may select the Schedule Bank where the Escrow account is to be opened and inform the same to the Coal Controller, CCO, Kolkata.
- 2.8. Coal Controller, Kolkata shall get the WPI (used for escalation of closure cost at the time of formulation of Mining plan) updated, at the time of opening of Escrow account. The mine owner/ company including all public/ private sector companies shall deposit the yearly amount in a Schedule Bank in accordance with Para 2.6. Coal Controller, **Kolkata shall also get the**

**information, submitted under to para 1.2, verified and get the yearly closure cost modified with respect to the latest WPI in accordance with para 2.6.**

- 2.9. Final Mine Closure: The details of the Mining Plan (covering Final Mine Closure Plan envisaging the details of the updated cost estimates for various mine closure activities and the Escrow Account already set up, shall be submitted to the approving authority for approval at least five years before the intended final closure of the mine.
- 2.10. Final Mine Closure would be considered to be completed only after acceptance of the third-party audit report by the Coal Controller on the compliance of all provisions of Mine Closure Plan. Any Institute/ Organization/Agency as may be specified by the Government for this purpose may be engaged for Third Party audit to create a self-sustained ecosystem. Failure of restoration within the specified period may result in forfeiture of Escrow Account created as per Para 2.6 & 2.7. The details of the Final Mine Closure Plan along with the details of the updated cost estimate for various mine closure activities and escrow account already set up shall be submitted at the time of approval of final mine closure plan.
- 2.11. **Time Scheduling for abandonment:** The Action plan for carrying out all abandonment operations (progressive and final mine closure) should be furnished in the form of bar chart for a period of life of the mine plus post closure period. Post closure period shall be taken as 3 (three) years for Underground mines and Opencast mines having stripping ratio lesser than 6 (six)  $\text{MM}^3/\text{Te}$  & 5 (five) years for mines having stripping ratio more than 6 (six)  $\text{MM}^3/\text{Te}$ .
- 2.12. **Implementation of the approved Mine Closure Plan shall be sole responsibility of the mine owner.** Mining is to be carried out in a phased manner i.e. continuation of mining activities from one phase to other indicating the sequence of operations depending on the geo-mining conditions of the mine. Up to 50% of the total deposited amount including interest accrued in the ESCROW account may be released after every five years in line with the periodic examination of the Closure Plan as per Para 2.2. The amount released should be equal to expenditure incurred on the progressive mine closure in past five years or 50% whichever is less. The balance amount shall be released to mine owner/leaseholder at the end of the final Mine Closure on compliance of all provisions of Closure Plan. This compliance report should be duly signed by the lessee and certify that said closure of mine complied all statutory rules, regulations, orders made by the Central or State Government, statutory organisations, court etc. and certified by the Coal Controller.
- 2.13. **Responsibility of the mine owner:** It is the responsibility of the mine owner to ensure that the protective measures contained in the mine closure plan including reclamation and rehabilitation works have been carried out in accordance with the approved mine closure plan and final mine closure plan.
- 2.14. The owner shall submit to the Coal Controller a yearly report before 1st July of every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure plans (Progressive and Final Closure Plans).
- 2.15. The money to be provided per hectare of total Project Area for the purpose is to be deposited every year on commencement of any development activity on the land for the mine after opening a Fixed Deposit Escrow Account prior to obtaining mine opening permission from Coal Controller. Mining company/owners including all Public Sector Undertakings shall deposit the yearly amount in a Scheduled Bank. If the Mine owners fail to deposit the required annual amount in accordance with Para 2.6, 2.7 & 2.8, the Government can withdraw the mining permission.
- 2.16. The funds so generated are towards the security to cover the cost of closure in case the mine owner fails to complete the relevant closure activities. The prime responsibility of mine closure shall always lie with the mine owner, and in case these funds are found to be insufficient to cover the cost of final mine closure including the areas covered in Para 2.3 2.6, 2.7, 2.8 & 2.9 above. The mine owner shall undertake to provide the additional fund equivalent to the gap in

funding before five years of Mine Closure failing which it may be recovered by such other methods as the competent authority may deem fit in this regard.

- 2.17. **Final Closure Certificate:** The Mine owner shall be required to obtain a mine closure certificate from Coal Controller to the effect the protective, reclamation, and rehabilitation work in accordance with the approved Mining plan covering final mine closure provisions/activities have been carried out by the mine owner for surrendering the reclaimed land to the State Government.
- 2.18. The balance amount at the end of the final Mine Closure shall be released to mine owner on compliance of all provisions of Closure Plan duly signed by the mine owner to the effect that said closure of mine complied with all statutory rules, regulations, orders made by the Central or State Government, statutory organizations, court etc. and duly certified by the Coal Controller. This should also indicate the estimated extractable coal reserves and coal actually mined out.
- 2.19. If the Coal Controller has reasonable grounds for believing that the protective, reclamation and rehabilitation measures as envisaged in the approved mine closure plan in respect of which financial assurance was given has not been or will not be carried out in accordance with mine closure plan, either fully or partially, the Coal controller shall give the mine owner a written notice of his intention to issue the orders for forfeiting the sum assured at least thirty days prior to the date of the order to be issued after giving an opportunity to be heard.

### 3. **Formulation of Mining Plan by Qualified Person (QP) or Accredited Mining Plan Preparing Agency (MPPA):**

- 3.1. System of granting Recognition to a person for preparation of mining plan u/s 22C of MCR 1960 & preparation of mining plan only by RQP u/s 22B of MCR 1960 shall be done away with, after commencement of the Mineral Concessions (Amendment) Rules, 2020.
- 3.2. After commencement of Mineral Concession (Amendment) Rule 2020, no mining plan shall be accepted unless it is prepared by Qualified Person (QP) or Accredited Mining Plan Preparing Agency (MPPA).
- 3.3. Quality Council of India (QCI) or National Accreditation Board for Education and Training (NABET) shall be engaged for accrediting following entities:
- (i) Accredited Prospecting Agency (APA) for undertaking prospecting operations and preparation of geological reports for Coal and Lignite Mines, and
  - (ii) Mining Plan Preparing Agency (MPPA) for preparation of mining plan (for Coal, Lignite Mines and Sand for Stowing)
- 3.4. The Quality Council of India (QCI) or National Accreditation Board for Education and Training (NABET) shall grant accreditation in accordance with such standards and procedures as specified in schedule VI of Mineral Concession (Amendment) Rule 2020.
- 3.5. Qualified Agency (QP) or Mining Plan Preparing Agency (MPPA) who prepares mining plan for a block/mine, shall have recognition from the concerned company board that the qualification of the QP or accreditation of the MPPA has been duly verified and is in line with the relevant provision of the MCR 1960.

### 4 **Submission, Processing and Scrutiny of Mining Plan**

- 4.1. **On and from the date of publication of order and upto the expiry of period of nine months from the commencement of the Mineral Concession (Amendment) Rules, 2020**, every mining plan submitted for approval/modification shall be accompanied with a non-refundable application fee specified from time to time in this regard, for the project area specified in the mining plan.
- 4.2. **On and from the expiry of period of nine months from the commencement of the Mineral Concession (Amendment) Rules, 2020**, every mining plan submitted for approval/modification

shall be accompanied with a non-refundable application fee specified from time to time in this regard, for the project area specified in the mining plan and peer/expert review done by any accredited mining plan preparing or reviewing agency at their (applicant's) own cost. During examination of the Mining Plan by the internal committee of MoC, if it is felt that a review by expert or by specialized agency is required, the committee may recommend referring the mining plan to such expert/agency with the approval of the MP approving authority. Charges for the expert review shall be borne by the applicant.

- 4.3 All pages (including cover page, plates and Annexures) shall bear the signature & stamp furnishing details of the QP/Accredited Mining Plan preparing Agency (MPPA) in physical mode of submission and e-signature/digital signature during the online system of submission.
- 4.4 Ministry of Coal is in process of development of on-line portal for submission and approval of mining plan. system of acceptance of Physical copy shall be continued till the development/operationalization of online portal for submission and approval of mining plan.
- 4.4.1 Submission to Physical Copy Mining Plan to Ministry of Coal:**
- 4.4.1.1 The project proponent shall submit one soft copy and four hard copies of Mining Plan (draft)- one each to the concerned Administrative Section of the Ministry of Coal for the concerned block, Section of MoC/CCO dealing with approval of Mining plan, Coal Controller, CMPDIL/ Extended office of CCO & the dispatch receipt of the speed post (confirming that the draft Mining Plan has been sent).The contact details and correspondence address of the section dealing with the approval of Mining plan, administrative section for the mine, members of the committee etc. shall be updated time to time, on the website of the Ministry of Coal/Coal Controller Organisation.
- 4.4.1.2 The project proponent shall incorporate the observation (if any) and submit the mining plan (after incorporating the compliance to the observation) to section of MoC/CCO dealing with approval of Mining plan, concerned administrative section of the Ministry of Coal, Coal Controller and CMPDIL/ Extended office of CCO.
- 4.4.1.3 Submission of Mining Plan (after incorporating compliance) to Ministry of Coal:** The project proponent shall submit 04 (Four) hard copies & 01 (one) soft copy of modified Mining Plan and the compliance to the observations along with copy of the dispatch receipt of the Speed Post (confirming that the modified Mining Plan has been sent to section of MoC/ CCO dealing with approval of Mining Plan, concerned administrative section of the Ministry of Coal, Coal Controller, and CMPDIL/ Extended office of CCO).
- 4.4.1.4 The procedure of submission at Para 4.3.1 will be replaced by process of submission at para 4.3.2 on development of portal for online submission and approval of Mining Plan.
- 4.4.2 Online System of Submission of Mining Plan for Approval:**
- 4.4.2.1 Project proponent shall register online, using registered official mail ID.
- 4.4.2.2 For the purpose of preparation of Mining plan through a QP or MPPA, project proponent shall share a temporary login with QP/MPPA. This temporary login shall be valid till the preparation and approval of mining plan only.
- 4.4.2.3 The QP/MPPA shall upload the Mining plan through the temporary login and submit it to the project proponent; QP/MPPA once submits the mining plan to the project proponent, he shall not be able to modify.
- 4.4.2.4 The Project Proponent shall make payment of processing charges/fees online as specified from time to time by Ministry of Coal;
- 4.4.2.5 The Project Proponent shall after incorporating relevant company board approvals submit the mining plan to the Approving Authority; The mining plan submitted to approving authority shall become visible to Administrative Section for the respective block, section of MoC/CCO dealing

with approval of Mining plan, members of the Internal Committee, Coal Controller, CMPDIL/Extended office of CCO, simultaneously. System of SMS alerts shall be available at all stages;

- 4.4.2.6 Observations of the Committee Members shall be uploaded online and the project proponent shall also submit Mining Plan, after incorporating compliance, online

## 5 Scrutiny & Processing of Mining Plan

- 5.1.1 The current system of getting the mining plan scrutinized through CMPDI, Ranchi shall continue. Ministry of Coal is in process of creating an extended office of Coal Controller Organization at Delhi which shall be delegated with the work of processing and scrutiny of mining Plan. A letter to this effect shall be issued separately.
- 5.1.2 CMPDIL/Extended office of CCO at Delhi shall scrutinize the mining plan and submit comments to section of MoC/CCO dealing with approval of Mining plan within Fifteen (15) days of receipt of the Mining Plan. Non-submission of comments within the stipulated time may be presumed as "no comment" from CMPDIL/Extended office of CCO; CMPDIL/ Extended office of CCO at Delhi, if consider necessary to make a physical verification of the site/site visit for scrutiny of the mining plan, may make such site visit/physical verification of the site, however, no relaxation in the time line as specified above may be given.
- 5.1.3 Administrative Section of the Ministry of Coal (dealing with the block) shall scrutinize the mining plan with respect to Vesting order/ allotment order and CMDPA signed with allottee at the time of allotment and submit observations to section of MoC/CCO dealing with approval of Mining plan (till the development of portal for Mining plan approval) within Fifteen (15) days of receipt of the Mining Plan. Non-submission of comments within the stipulated time may be presumed as "no comment" from the administrative section;
- 5.1.4 Members of the Internal Committee shall examine the mining plan from Technical and administrative angle based on the observations of the Administrative Section (dealing with the respective block) and CMPDIL/Extended office of CCO and the peer/expert review report submitted with the mining plan and submit observations to section of MoC/CCO dealing with approval of Mining plan (till the development of portal for Mining plan approval) within Fifteen (15) days of receipt of the Mining Plan. Non-submission of comments within the stipulated time may be presumed as "no comment" from the administrative section. Members of the internal committee, CMPDIL/Extended office of CCO may raise observation twice only. The observation raised shall be communicated directly to the project proponent for incorporating the same in the mining plan. The project proponent shall make presentation in the meeting of the internal committee for scrutiny.
- 5.1.5 Section of MoC/CCO dealing with approval of Mining plan shall communicate the observation (if any) to the project proponent for compliance till the development of online system for submission, processing, and approval of mining plan.
- 5.1.6 Subsequent, to development of online portal for submission, processing, and approval the observations of the internal committee members shall be uploaded directly on the portal, which will be visible to the project proponent. A timeline of 15 days shall be available for the internal committee members to upload the comments. Non-submission of comments within the stipulated time may be presumed as "no comment".

## 6 Timeline for submission of Compliance:

Once the observation of the Scrutiny of the mining plan is communicated either in hard copy, mail or online, the Project Proponent is required to submit the mining plan after incorporating the compliance to the observation within a period of 15 days of the communication, failing which the mining plan submitted for approval shall be rejected.

Provided that any such application may be entertained after the said period of 15 Days, if the applicant satisfies the approving authority that he had sufficient cause for non-submission of mining plan (after incorporating the compliance) in time. However, in any case this period may not be extended beyond 30 days from the date of receipt of communication of the observation.

## 7 Approving Authority:

- 7.1 On and from the date of publication of order and up to the expiry of period of nine months from the commencement of the Mineral Concession (Amendment) Rules, 2020, the powers to approve mining plan for all categories of coal and lignite mines and sand for stowing shall be exercisable by Project Adviser, Ministry of Coal.
- 7.2 On and from the expiry of period of nine months from the commencement of the Mineral Concession (Amendment) Rules, 2020, the power to approve mining plan for all categories of coal and lignite mines including sand for stowing shall be exercisable by the Coal Controller, CCO, Kolkata, a subordinate office of Government of India in the Ministry of Coal.
- 7.3 The person delegated to approval of Mining Plan under sub-section (1) of section 26 read with clause (b) of sub-section (2) of section 5 of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) (hereinafter, the 'Act') may seek help of an Internal committee constituted for the purpose.
- 7.4 The approving authority shall dispose of the application for approval of the Mining Plans within a period of 30 days from the date of receiving of such application (The Mining Plan received on or before 30th of Current Month will be considered in the ensuing meeting). Provided that the aforesaid period of 30 days shall be applicable only if the Mining Plan is complete in all respect, and in case of any modifications subsequently suggested after the initial submission of the Mining Plan for approval, the said period shall be applicable from the date on which modified mining plan is re-submitted.

## 8 Internal Committee for Scrutiny of Mining Plan:

- 8.1 Members of the Internal Committee shall examine the mining plan from Technical and administrative angle based on the observations of the Administrative Section dealing with the respective block & CMPDIL/ Extended office of CCO.
- 8.2 The internal committee shall recommend the mining plan for "Approval" or "Rejection". In case of recommendation for Rejection, the committee shall record the reason for Rejection.
- 8.3 Till the opening of CCO office at Delhi, the internal committee shall consist of:
1. Director (Technical), MoC, Member Secretary
  2. Director/ Deputy Secretary, MoC of the section dealing with the allocation/allotment of the respective block, Member
  3. Coal Controller or his representative, Member
  4. Director level officer of CMPDIL, Member
  5. Director/Deputy Secretary, Nominated Authority, Member
- 8.4 After opening of CCO office at Delhi, the internal committee shall consist of:
1. Director level officer of CCO having relevant working experience., Member
  2. Director/ Deputy Secretary of the section dealing with the respective block, Member
  3. Head of Regional Coal Controller Office (having relevant working experience in mine planning), CCO Regional Office New Delhi, Member Secretary
  4. Any other technical person having working experience of not less than 15 (fifteen) years in mine planning, Member

## 9 Communication of Approval:

- 9.1 In case of allotted/auctioned mine, section dealing with approval of Mining Plan shall communicate the decision of the approving authority within a period of 5 (five) working days in form of a letter confirming "in-principle approval" of the Mining Plan to the project proponent

with a copy of the same to the Nominated Authority, Govt. of India. Final approval of the Mining Plan in such cases shall be communicated by the section dealing with approval of Mining Plan, only on receipt of applicable payments and its confirmation from the Nominated Authority, Govt. of India.

- 9.2 While for mines other than auctioned/allotted mines, section dealing with approval of Mining Plan shall communicate the decision of the approving authority within a period of 5 working days.

## 10 Revision:

- 10.1 Any person aggrieved by any order made or direction issued in respect of mining plan by an officer competent to approval mining plans shall within 30 days of the communication of such order or direction, apply to the Secretary (Coal), Ministry of Coal for a revision of such order or direction thereon.
- 10.2 On receipt of any application for revision the authority shall give the aggrieved person a reasonable opportunity of being heard and may within 30 days confirm, modify or set aside the order or direction and his decision thereon shall be final.

- 11 **This Guideline** supersedes the previous orders and are without any prejudice to any other relevant rules and regulations, such as those issued by the State Governments, Ministry of Environment, Forest and Climate Change, Ministry of Labour and Employment, etc.



(Hitlar Singh)

Under Secretary to the Government of India

To,

**All the existing Coal and Lignite block allocates**

Copy to: -

1. All Joint Secretaries, MoC.
2. Coal Controller, Coal Controller's Office, 1- Council House Street, Kolkata.
3. CMD, CIL, Newtown, Rajarhat, Kolkata-700156, W.B
4. CMD, NLCIL, Cuddlore, Distt. Neyveli- 607801 (Tamil Nadu).
5. CMD, Singareni Collieries Company Limited (SCCL), Kothagudem Collieries, Khammam Distt.(A.P).
6. Tech. Director (NIC) - with the request to place it to Website of the Ministry of Coal.