



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), JHARKHAND)

To,

The Chief General Manager (C&J)
 COLLIERIES DIVISION STEEL AUTHORITY OF INDIA LIMITED
 Chasnalla Colliery, Collieries Division, SAIL-Chasnalla(Dhanbad) -828135

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/JH/CMIN/408531/2022 dated 17 Jul 2023. The particulars of the environmental clearance granted to the project are as below.

| | |
|--|--|
| 1. EC Identification No. | EC23B001JH133259 |
| 2. File No. | EC/SEIAA/2023-24/2886/2023 |
| 3. Project Type | New |
| 4. Category | B |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Chasnalla Colliery |
| 7. Name of Company/Organization | COLLIERIES DIVISION STEEL AUTHORITY OF INDIA LIMITED |
| 8. Location of Project | JHARKHAND |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 21/08/2023

(e-signed)
 Ashok Kumar, IFS
 Member Secretary
 SEIAA - (JHARKHAND)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, Dhurwa, Ranchi. Jharkhand-834 004

E-mail: msseiaa.jhk@gmail.com / chr-seiaajhr@gov.in

website: www.jseiaa.org

Letter No. : EC/SEIAA/2022-23/2886/2022/

Ranchi, Date :

To: M/s Steel Authority of India Limited,
Md. Adnan,
Chief General Manager,
At + P.O. : Chasnalla, District : Dhanbad - 828135,
Jharkhand.

Sub. : Environmental Clearance for the project “Chasnalla Colliery including Washery of 1.2 MTPA / 1.5 MTPA (Normative / Peak) along with expansion of Coal Washery of 4.0 MTPA capacity and OB handling at surface for backfilling of exhausted West Quarry of M/s Steel Authority of India Ltd., Village : Chasnalla, Het Kandra, Tehsil : Jharia – cum – Jorapokhar – cum – Sindri, Distt. : Dhanbad, Jharkhand (230.88 Ha)” (Proposal No. : SIA/JH/CMIN/ 408531/2022) – regarding.

Ref. : Your application no. CGM/25-PC/298, dated - 15.07.2023.

It is in reference to the project “Chasnalla Colliery including Washery of 1.2 MTPA / 1.5 MTPA (Normative / Peak) along with expansion of Coal Washery of 4.0 MTPA capacity and OB handling at surface for backfilling of exhausted West Quarry of M/s Steel Authority of India Ltd., Village : Chasnalla, Het Kandra, Tehsil : Jharia – cum – Jorapokhar – cum – Sindri, Distt. : Dhanbad, Jharkhand (230.88 Ha)” submitted by you for seeking prior Environmental Clearances (EC).

This is Chasnalla Colliery including expansion of Coal Washery project which has been taken for appraisal on 19.07.2023.

The project is a violation case since the project had come in to operation without obtaining prior Environmental Clearance. The project was considered by MoEF&CC, Govt. of India under the notification no. 804(E), dated 14.03.2017 and has approved the violation ToR vide letter no. IA-J-11015/26/2019-IA-II(M), date 31.12.2020. The final EIA / EMP submitted by PP to SEIAA in the light of notification no. S.O. 1886 (E), dated 20th April, 2022 on 15.07.2023, which was forwarded to SEAC on 16.07.2023.

Project and Location Details :

| Sl | Parameter | Details |
|----|--------------|---|
| 1 | Project Name | : Chasnalla Colliery including expansion of Coal Washery of Collieries Division, STEEL AUTHORITY OF INDIA |

| | | | |
|----|----------------------|---|--|
| | | | LIMITED (Lease Area-230.88 ha) |
| 2 | Lessee: | : | Collieries Division, Steel Authority of India Limited |
| 3 | Lease Address | : | Chief General Manager (C&J) Collieries Division, SAIL-Chasnalla (Dhanbad), Jharkhand-828135 E-mail- gmchasnalla@gmail.com |
| 4 | Lease Area | : | Ha: 230.88 ha Acres:570.5 |
| 5 | Type of Land | : | Private & Govt. land. There is no forest land. |
| 6 | Project Cost | : | 45000 Lakhs |
| 7 | EMP Budget | : | Capital: 461.79.Lakh Recurring: 153.93. Lakh / year |
| 8 | CSR / CER Budget | : | Rs. 2.0 Crore |
| 9 | New or Expansion | : | Expansion of production capacity 1.2/1.5 Million Tons (Normative/Peak) 4 MTPA washery (2.8 + 1.2) |
| 10 | Mineable Reserves | : | 38.457 Million Ton |
| 11 | Mine Life | : | OC – 9, UG 23 & Overall 23 years (as per the Mining plan) |
| 12 | Man power | : | Total manpower 599. |
| 13 | Water Requirement | : | Washery - 6400 KLD, Domestic 1660 KLD and Mining 300 KLD |
| 14 | Water Source | : | Domestic water requirement is 1660 KLD source-Damodar River supply. Industrial water requirement is 6700 KLD source-Mine water. |
| 15 | DG Set / power | : | 1250 KVA. (Source-DVC and JSEB) |
| 16 | Crusher | : | Roll Crusher at Washery. |
| 17 | Nearest Water Body | : | Damodar River |
| 18 | Nearest Habitation | : | Chasnalla and Het Kandra village. |
| 19 | Nearest Rail Station | : | Sudamdih Railway Station-1 Km and Dhanbad Railway Station-16 Km from Chasnalla Mining Lease |
| 20 | Nearest Air Port | : | Ranchi Airport- 161 km |
| 21 | Nearest Forest | : | 1250m away from project. |
| 22 | Road & Highways | : | NH-19 (Old NH-2): About 20 km away passes through Dhanbad |

CO-ORDINATES

| | | |
|---|-----------|--------------------------------------|
| 1 | Latitude | Latitudes 23°40'03'' to 23°38'33'' N |
| 2 | Longitude | Longitude 86°26'52'' to 86°27'57''E. |

LAND DETAILS

| | |
|---|--|
| 1 | Total land 230.88 ha of Mining Lease area. • SAIL land: 174.43 ha |
|---|--|

- Private land: 16.10 ha
- Government land: 40.35 ha
- Forest land : Nil

Chasnalla – Mouza No. 165

- 1) **Khata Nos.** – 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111.
- 2) **Plot Nos.** 1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 409, 410, 411, 412, 414, 415, 416, 417, 418, 419, 420, 421, 422, 430, 434, 435, 436, 437, 438, 439, 444, 448, 449, 451, 452, 453, 460, 461, 464, 465, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 525, 526, 527, 528, 529, 535, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 76/651, 360/653, 475/654, 368/655, 64/656, 404/657, 312/658, 372/659, 111/660, 537/661, 87/662, 371/663, 395/664, 95/665, 80/666, 25/667, 511/668, 78/669, 579/670, 404/671, 523/672.

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| | <p>Het Kandra – Mouza No. 167</p> <p>1) Khata Nos. – 34, 35, 37, 38. 2) Plot Nos. 333, 334, 337, 338, 339, 340, 341, 342, 343, 345, 346, 377, 378.</p> |
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STATUTORY CLEARANCES

| | | |
|---|--------------------------|--|
| 1 | LOI/Lease docs | : The total Lease hold area of Chasnalla is 230.88 Ha, containing two mouzas namely Chasnalla (226.80 Ha) and Het Kandra (81.38 Ha). Lease was granted in the year 1938 for a period of 750 years. The Ministry of Coal issued notification dated 1 st October, 2021 regarding amendment of Mineral concession Rule and called Mineral Concession (Amendment) Rules, 2021. As per 24C (2) (Period of mining lease granted to Government companies or corporation) all subsisting mining leases vested or granted to Government companies or corporation before commencement of Mineral Concession (Amendment) Rules, 2021 for coal or lignite shall be deemed to have been granted for fifty years or till 31 st March 2030, whichever is later. |
| 2 | CO | : The CO, Jharia vide letter no. 886, dated 12.06.2023 has mentioned the plot nos. of the project is not recorded as “Jungle Jhari” in Haal Survey Khatiyani & Register II. |
| 3 | DFO Wild Life | : DFO, Wildlife Hazaribag vide letter no. 174 & 178, dated 24.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary. |
| 4 | Territorial DFO | : DFO, Dhanbad Forest Division vide letter no. 1600 & 1601, dated 09.06.2023 certified that the distance of reserved / protected forest is 300 m from proposed project site. |
| 5 | Consent to Operate (CTO) | : CTO granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-14147122/2022/1862, dated 30.12.2022. |
| 7 | Public Hearing | : Public Hearing conducted on 26.08.2022. |
| 8 | Mine Plan | : JHJH004/APP0061/2021, dated 10.11.2022. |

Working Details

| | | | | |
|----|-------------------------|---|---|-------------------------|
| 1 | Mining Method | : | Underground and Open Cast Mine. Longwall panel with hydraulic Sand/Bottom Ash stowing method. Shovel Dumper combination for Open Cast Mine. | |
| 2 | Quarry Area | : | 17.46 Ha | |
| 3 | Waste Generation | : | Nil | Life of Mine --23 years |
| 4 | Stripping Ratio | : | 1 : 4.5 | |
| 5 | Working Days | : | 300 | |
| 6 | Bench: size & No | : | Bench height 10 m width – Three times width of Dumper | |
| 7 | Elevation of Mine | : | 140.5 MRL | |
| 8 | Ground Level Elevation | : | 138m to 156m (Lowest and Highest contour) | |
| 9 | Ultimate Working Depth | : | 134m (underground), 38 m (Open Cast) | |
| 10 | Water Table | : | 4.31 to 9.79 m | |
| 11 | Topography of Mine | : | The area is characterized by gently undulating to a rolling topography with an overall slope towards east-southeast. The ground elevation of the area generally varies from 270 m in the South-western part to 120 m in the eastern part near the Damodar river | |
| 12 | Explosive Requirement | : | 40669.43 kg /Yearly (Permitted-5) | |
| 13 | Diesel/Fuel requirement | : | 2.15 KL/year (For DG set) | |

Production Details for first five year as per Approved Mining plan

| Year | Production of coal (Million Ton) |
|-----------------|----------------------------------|
| 1 st | 0.2 |
| 2 nd | 0.2 |
| 3 rd | 0.27 |
| 4 th | 0.35 |
| 5 th | 0.42 |

Solid Waste Management

- Waste Generation will be **Nil** during the life of mine. It is an underground mine, stone generated during coal mining utilised for side wall packing of the u/g mine galleries.

Water Quality Management

- Underground Mining is planned below the ground water table.

- The rain water during rainy season will be collected in a rain water harvesting pit. Mine water is used for dust suppression and plantation. Garland drain has been made around working shaft.
- Retaining walls along the jore/nalla constructed to prevent water flowing into the lease area
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

Air Quality Management

- Presently Underground mines of Chasnalla Colliery is in operation. Being an underground mine, drilling at surface is not required. Moreover, drilling of roof rock at underground for installation of supports is done in conjunction with water spraying. Drilling of coal hole at underground is undertaken after the complete face has been wetted with water.
- Water sprinkling will be done on the transportation roads of Chasnalla.
- Regular water sprinkling at core zone as well as buffer zone.
- Use of personal protective equipment like dust mask etc shall be put in practice
- Monitoring of the ambient air quality is being carried out as per norm.

Undertakings affirming the following have been submitted:

- a. No ground water is used for domestic purpose, any mining activities or any other use and therefore undertakes that no ground water will be used for domestic purpose, any mining activities or any other use.
- b. The Boundary Pillars of the Chasnalla lease area will be maintained properly.
- c. One season post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- d. The plantation work will be done as per the approved Mining Plan / Review of Mining plan of Chasnalla Colliery lease area.
- e. Sufficient water spray using water tankers will be done for effective dust suppression within the Core and Buffer zone.
- f. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records will be maintained.

PROJECT SUMMARY

The ToR/EC proposal for Chasnalla Colliery Mine of 1.2/1.5 MTPA capacity in mine lease area of 230.88 ha of M/s SAIL located in village Chasnalla and Het Kandra, Tehsil Jharia cum Jorapokhar cum Sindri, District Dhanbad (Jharkhand) was granted by MoEF&CC on 31.12.2020.

Details of project are given as under:

- i. Chasnalla Colliery of Collieries Division, M/s Steel Authority of India

Ltd is located in the Eastern part of the Jharia Coalfield, District Dhanbad, Jharkhand and covers an area of about 3.5 sq. km. The Chasnalla mine concession lies between latitudes 23°40'03":23°38'33" N and longitude 86°26'52":86°27'57" E. It is covered by Survey of India Survey Sheet Nos. 88, 89, 94 & 95 (RF 1:10,000) of Topo Sheet No. 73I/6 and falls within sheet no. 8 of the geological map (4" = 1 mile) published by the Geological Survey of India. Coal linkage of the project is proposed for Captive use for various Steel plants.

- ii. Employment generation: employment to 512 persons will be provided from the project.
- iii. The project is reported to be beneficial in terms of : The project will further improve the living condition of the people. The project will generate direct as well as indirect employment. The income thus generated will thus improve the beneficiaries living conditions.
- iv. Total mining lease area as per block allotment is 230.88 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the MoC.
- v. The land usage pattern of the project is as follows:

Land use details (Area in Ha)

| S. No. | LANDUSE | Area (ha) | Area in % |
|--------|-------------------------------|-----------|-----------|
| 1. | Agricultural land | Nil | 0 |
| 2. | Forest land | Nil | 0 |
| 3. | Wasteland | 51.93 | 22.49 |
| 4. | Grazing land | Nil | 0 |
| 5. | Surface water bodies | 72.9 | 31.5 |
| 6. | Settlements | 50.35 | 21.80 |
| 7. | Others (specify) | | |
| i | Mining Area | 17.46 | 7.56 |
| ii | OB Dump | 12.07 | 5.22 |
| iii | Existing Washery | 12.50 | 5.41 |
| iv | Proposed modular washery site | 4.8 | 2.07 |
| v | Other Infrastructure | 7.37 | 3.19 |
| vi | Green belt | 1.30 | 0.56 |
| vii | Burning Ghat | 0.20 | 0.086 |

| | | | |
|--|--------------|---------------|--|
| | TOTAL | 230.88 | |
|--|--------------|---------------|--|

- i. Total geological reserve reported in the mine lease area is 58.032 MT with 38.457 MT mineable reserve.
- ii. Life of mine is 23 years @ nominal 1.2 MTPA / peak 1.5 MTPA.
- iii. Transportation of coal has been proposed by Belt conveyor from mine to Chasnalla washery.
- iv. No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- v. The ground water level has been reported to be varying between 4.31m to 9.79m during pre-monsoon and between 2.06 m to 6.40m during post-monsoon. Total water requirement for the project is 6700 KLD.
- vi. Public hearing for the project of 1.2/1.5 MT capacity in an area of 230.88 Ha was conducted on 26.08.2022. Major issues raised in the public hearing included in the Final EIA-EMP report
- vii. Consent to Operate for the existing capacity was obtained from the State PCB on 30.12.2022 and was valid till 31.12.2023
- viii. Regular monitoring of ambient air quality is being carried out. The documented report is submitted to JSPCB and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- ix. **Total capital cost** of the project is Rs. 45000 Lakh, **CSR cost** to be incurred as per the guidelines. As it is an existing mine, most of the area under reference is developed with surface constraints of colliery complex and no R&R is involved. **Environment Management Cost:** Capital provisions for environmental control measures, which includes pollution control arrangement.

- Primary socio economic study has been done around 10km radius of project area (February-March, 2021) as mentioned in EIA report in Chapter 3 Page number 165-166.
- Based on the primary survey needs of villagers has been identified and tabulated below along with the budget commitment, plan, and time-line.

| S.N. | Needs of Villagers | Budget provision (In Lakhs) |
|------|--------------------|-----------------------------|
| 1 | Medical facility | 10.00 |
| 2 | Drinking water | 3.00 |
| 3 | Education. | 5.00 |
| 4 | Electricity | 2.00 |
| 5 | Pakka Road | 10.00 |
| 6 | Employment | 5.00 (Skill-Training) |
| 7 | Bathing Ghat | 2.00 |

Public Hearing issues and Time bound plan with budget

| क्र. सं. | प्रश्न/सुझाव/मुद्दे | इकाई प्रतिनिधि का जवाब | बजट प्रावधान (लाख रुपये) | कार्य पूरा करने का समय |
|----------|---|--|-------------------------------------|--|
| 1 | • वायु प्रदूषण कि नियंत्रण कि व्यवस्था कि जाय | • वायु प्रदूषण कि नियंत्रण कि व्यवस्था सुदृढ़ कि जाएगी | • 12 | • चल यान (मोबाइल वैन) द्वारा निरंतर |
| | • रेलवे साइडिंग से उड़ने वाली धुल को रोकने के व्यवस्था कि जाय | • रेलवे साइडिंग में पानी के छिडकाव कि व्यवस्था को और सुदृढ़ किया जायेगा | • 16 | • ट्रौली माउंटेड फॉर (fog) वाटर मिस्ट केनन वित्तीय वर्ष 2023-24 में पूर्ण किया जाएगा |
| 2 | • प्रदूषण मुक्त पीने कि पानी कि व्यवस्था कि जाय • पेयजल व्यवस्था को बेहतर किया जाये | • चासनाला फ़िल्टर प्लांट से पीने कि पानी कि व्यवस्था पाइप लाइन के द्वारा दी जाती है • फ़िल्टर प्लांट में पानी कि नियमित जाँच कि जाती है | • 10 (पाइप लाइन मंटेनेंस) • 2 | • निरंतर मासिक रूप से जांच कराई जाती है |
| | • जल प्रदूषण को लेकर लोगो में जागरूकता फैलाई जाये | • स्वक्षता अभियान के तहत जल प्रदूषण के सम्बन्ध में शिविर लगा कर आम लोगों को जागरूक किया जायेगा | • 1 | • नियमित रूप से वर्ष में चार बार |
| 3 | • स्थानियों को रोजगार दिया जाये • विस्थापितों को नौकरी दी जाये • स्थानियों के कौशल विकास के लिए व्यवस्था कि जाय | • स्थानीय लोगो को कार्य में प्राथमिकता दी जाएगी • सी.एस.आर. के अंतर्गत कौशल विकाश पर कार्य किया जायेगा | • 4 | • वर्ष २०२४-२५ तक कौशल विकास केंद्र बनाया जाएगा |
| | • ठेका मजदूरों को नियमित रोजगार मिले • भूमि अधिग्रहण के बदले रोजगार दिया जाय | • भूमि अधिग्रहण के एवज में नौकरी के सम्बन्ध में निति और नियमों के तहत करवाई कि जाती है | | लंबित आवेदनों का निष्पादन पात्रता के आधार पर २०२४-२०२५ तक किया जाएगा |
| | • स्थानियों लोगों के इलाज कि सुविधा प्रधान कि जाए • सेल को जमीन देने वाले | • सी.एस.आर. के तहत स्थानियों लोगों के स्वास्थ्य कि जाँच के लिए मेडिकल कैंप लगाया जायेगा एवं दवा वितरण कि | • 12 | • नियमित रूप से मोबाइल मेडिकल वैन के द्वारा |

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|---|--|---|---|
| लोगों कि सेल अस्पताल में मुफ्त इलाज कि व्यवस्था कि जाय • स्वास्थ्य व्यवस्था बेहतर कि जाये | व्यवस्था कि जाएगी | | |
| • बिजली एवं स्कूल कि व्यवस्था को बेहतर कि जाये • चासनाला अकादमी को दुरुस्त किया जाये • बच्चों को स्कूल ड्रेस दिया जाए | • बिजली एवं स्कूल कि व्यवस्था को बेहतर बनाने के लिए प्रबंधन प्रयासरत है • चासनाला अकादमी कि व्यवस्था को और बेहतर बनाने के लिए प्रबंधन प्रयासरत है • बच्चों को स्कूल ड्रेस सी.एस.आर. के तहत उपलब्ध कराया जायेगा | • 20 | 2024-25 FY तक पूर्ण किया जाएगा। |
| • साइडिंग के इर्द गिर्द रोड कि व्यवस्था कि जाए • पैदल चलने वालों के लिए पाथवे को दुरुस्त किया जाए • के. के. गेट से सी. पी. पी. तक के रोड कि मरम्मत कि जाए | • साइडिंग के इर्द गिर्द रोड कि व्यवस्था कि जाएगी • पैदल चलने वालों के लिए पाथवे को ठीक किया जाएगा • के. के. गेट से सी. पी. पी. तक के रोड कि मरम्मत कि जाएगी एवं पानी का छिडकाव कि व्यवस्था को और सुदृढ़ कि जाएगी | • 3000 (Rite द्वारा budgetary offer दिया जा चुका है।) | • 2 वर्ष (2025-26 से 2026-27) के अंदर पूर्ण किया जाएगा। |
| • वृक्ष रोपण किया जाए • पर्यावरण के पहलुओं को ध्यान दिया जाये | • पर्यावरण सम्बन्धी कानून के पालन पर प्रबंधन कटिबद्ध है पोधों के वितरण एवं वृक्ष रोपण का कार्य क्रम जल्द से जल्द से प्रारंभ किया जायेगा | • 2 | • वार्षिक रूप से निरंतर किया जाएगा। |

COMMUNITY RESOURCE AUGMENTATION PLAN

| Particular | Proposed measures | Cost of proposed mitigation measures (lakh) | Time line |
|-------------------|---|---|--------------------|
| Water Environment | Bore well with solar power pump : 10 numbers in buffer zone | 60.00 | 2024-25 to 2026-27 |
| Ecology | Distribution of 20,000.00 fruit bearing tree saplings like | 20.00 | 2024-25 to 2026- |

| | | | |
|-------------------------|---|---------------|--------------------|
| | guava, mango, jamun, emli, sitaful, etc. in the buffer zone. | | 27 |
| Air & Noise Environment | Grant to Rotary club for organising an Eye Camp in buffer zone. | 5.00 | 2024-25 to 2026-27 |
| | Medical Camp at villages in the Buffer Zone | 20.00 | 2024-25 to 2026-27 |
| Socio-Economic | Panchayat/Community Bhawan | 20.00 | 2024-25 to 2026-27 |
| | RO/water cooler in Government schools and colleges | 5.00 | |
| | Solar light | 150.00 | |
| | Skill development | 20.00 | |
| | Education | 20.00 | |
| | Development of a Chatt Ghat/Bathing ghat | 14.79 | |
| | Total | 334.79 | |

Air Pollution Mitigation

| Proposed measures in buffer zone | Category of plan | Cost of proposed mitigation measures (In lakh ₹) | Time-Line |
|--|------------------|--|--|
| Water sprinkling in the buffer zone area with the help of mobile sprinklers. | Remediation Plan | 20.00 | Will be started FY- 23/24 and continue further |
| A green belt development along the road in the buffer zone with the help of forest | -- Do -- | 20.00 | 3 year contract will be awarded to forest department in the year 2024-25 |

| | | | |
|--|----------|-------|---|
| department. | | | |
| Conversion of Kacheha Road with Cemented road (RCC). | -- Do -- | 45.00 | Will start from FY 2024-25 and completed within 3 years |
| Maintenance of Pakka Road | -- Do -- | 10.00 | Will start from FY 2025-26 and continued further as per requirement |
| | Total | 95.00 | |

NATURAL RESOURCE AUGMENTATION PLAN

| Proposed measures in buffer zone | Category of plan | Cost of proposed mitigation measures (In lakh) | Time line |
|--|------------------------------------|---|--------------------|
| Cleaning and maintenance of Basti Pond before the monsoon | Natural Resource Augmentation Plan | 06.00 | 2025-26 |
| Development of 01 number of a new pond | -- Do -- | 10.00 | 2026-27 |
| Rain water Harvesting system at 25 locations in Buffer Zones | -- Do -- | 16.00 | 2024-25 to 2026-27 |
| Total | | 32.00 | |

Budget estimate towards ecology restoration and biodiversity conservation:

- The budget of **Rs. 85 Lakhs** has been allocated for ecological restoration and biodiversity conservation and management.

| Sl No. | Particular | Activity Proposed | Total amount in Lakh Rs. |
|--------|--|---------------------|--------------------------|
| 1. | Strategic plantation with aim to conserve the biodiversity in the core and buffer zone. The activity may include plantation, habitat protection or as directed by the State Forest | Through DFO Dhanbad | 85.00 |

| | | | |
|--|------------|--|--|
| | Department | | |
|--|------------|--|--|

Environmental Management Plan and Public Hearing Compliance costing

| Sl. No. | Description | Item | Recurring cost for 5 years (Rs. in Lakhs) | Capital Cost (Rs. In Lakhs) |
|---------------------------------------|---|---|---|---|
| 1 | Air Pollution/ Occupational Health & safety | Nose masks | 0.1/yearly | -- |
| | | Safety shoes | 0.11/yearly | -- |
| | | Ear Plugs | 0.03/yearly | -- |
| | | Helmets | 1.3/yearly | -- |
| | | Hand gloves | 0.3/yearly | -- |
| | | Medical check ups | 1.0/yearly | -- |
| | | Water utility for dust suppression | 35.00 | -- |
| | | Others | 50.00 | -- |
| 2 | Water & Soilerosion | Construction of garland drains, retaining walls, gabions & others | -- | 112.00 |
| | | De-silting operations | 30.00 | -- |
| | | Water harvesting pits | -- | 02.00 |
| 3 | Noise pollution | Maintenance of Machinery | -- | 200.00 |
| 4 | Biological & Socio-economicspect | Greenbelt development & maintenance | -- | 15.00 |
| | | Water Supply to nearby villagers | -- | 10.50 |
| 5 | Environment data generation and EMP preparation, etc. | Provision of environmental monitoring equipment like Particulate Analyzer, Noise Meter, Water Quality Analyzer and chemicals & glass-ware | 4.0/yearly | 11.00- For PM10 System at washery. 32.00- For EIA-EMP report Rs. 20 lakh- for Environmental Audit |
| TOTAL | | | 121.84 | 402.5 |
| Public hearing compliance cost | | | 3079.00 | |
| Grand Total | | | 3603.34 | |

Assessment of ecological damage with respect to air, water, land other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 4,61,79,260/- as per prevailing guidelines towards remediation plan and natural & community resource augmentation plan to be spent within a period 03 years. The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation :-

| | Parameter | Damage Cost (Rs.) |
|--------------|--|----------------------|
| 1 | Damage due to loss of Vegetation cover** | 19,76,355/- |
| 2 | Damage due to Air pollution** | 3,42,62,491/- |
| 3 | Damage due to Water Pollution*** | 99,40,414/- |
| Total | | 4,61,79,260/- |

- I. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. **4,61,79,260/-**.
- II. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. **4,61,79,260/-** towards implementation of remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board.

On the basis of 106th Minutes of Meeting of SEAC, the project Authority has submitted the Bank Guarantee to Jharkhand State Pollution Control Board, Ranchi. and the evidence of the same has been submitted to SEIAA, Jharkhand on **08.08.2023** bearing Bank Guarantee No. : **1731323BG0000699** dated : **05.06.2023 valid up to 05.08.2026**.

- III. The bank guarantee shall be released after successful completion of remediation plan, duly recommended by the SEAC, Regional Office - MoEF&CC, Govt. of India and approval of regulatory authority. Remediation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- IV. Approval / permission from CGWA shall be obtained before drawing ground water for the project activities, if applicable. Jharkhand State Pollution Control Board shall not issue Consent to Operate (CTO) until the PAs obtains such permission.







- V. PAs shall take necessary other clearances / permissions under various act and rules if any, from the respective authorities / departments.
- VI. STP of adequate capacity shall be established within the project premises.
- VII. Energy conservation measures adhering to part of ECBC norms shall be complied with.
- VIII. Action will be taken for the violation by the Jharkhand State Pollution Control Board under the provision of section 19 the Environment (Protection) Act, 1986.

The PAs have submitted the above required documents.

Jharkhand State Pollution Control Board and project Authorities will **ensure** that the amount of Bank Guarantee shall not be released/lapsed **till the completion** of remediation plan, natural and community resource augmentation plan as directed by MoEF & CC vide Notification No. **804 (E)**, dated **14th March, 2017**. In case of non compliance of the said directions/conditions, the Environmental Clearance issued will be deemed to be cancelled with immediate effect.

State Level Environment Level Impact Assessment Authority (SEIAA), Jharkhand in its **107th** meeting held on **07th & 08th August, 2023** discussed the project proposal along with recommendations made by SEAC in its **106th** meeting held on **18th, 19th, 20th, 21st and 22nd July, 2023** and decided to grant EC to the project.

On the basis of recommendation of SEAC and decision of SEIAA to grant of EC, Environmental Clearance is hereby issued to the **“Chasnalla Colliery including Washery of 1.2 MTPA / 1.5 MTPA (Normative / Peak) along with expansion of Coal Washery of 4.0 MTPA capacity and OB handling at surface for backfilling of exhausted West Quarry of M/s Steel Authority of India Ltd., Village : Chasnalla, Het Kandra, Tehsil : Jharia – cum – Jorapokhar – cum – Sindri, Distt. : Dhanbad, Jharkhand (230.88 Ha)”** alongwith the following specific conditions as recommended by SEAC:

I. Specific Conditions:

- i. This Environmental Clearance is valid subject to the following condition below –
That this project has-
 - a. Obtained all legal rights to operate at concerned place.
 - b. Complied with all existing concerned laws of the land and
 - c. Complied with the decisions of SEIAA on the issue of Environmental Clearance till date.
- ii. A technical feasibility study to be conducted for transportation of coal from all coal mine sources using ROAPWAY aimed at reducing Air Pollution and to ensure road accident zero.

EC Conditions for Open Cast Coal Mine.

I. Statutory compliance

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.

- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)
- iv. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".
- v. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- vi. The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- vii. Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016 as amended from time to time.

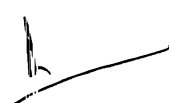
II. Air quality monitoring and preservation

- i. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.

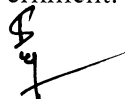
- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water / mist sprinkling / rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- iv. The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
- v. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vi. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- vii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

III. Water quality monitoring and preservation

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-1A.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.



- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change / Regional Office.
- v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- vi. Catch and or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
- vii. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
- viii. Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP / STP needs to be provided.
- ix. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- x. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.
- xi. The project proponent shall take all precautionary measures to ensure reversion/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A reversion /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.



IV. Noise and Vibration monitoring and prevention

- i. Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs / muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
- ii. Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
- iii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

V. Mining Plan

- i. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- ii. Mining shall be carried out as per the approved mining plan(including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- iii. No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980
- iv. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

VI. Land reclamation

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEF&CC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural /forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining" / "post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.

- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- v. Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- vi. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

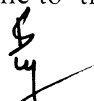
VII. Green Belt

- i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- ii. Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.

VIII. Public hearing and Human health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six- monthly basis.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.







- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- v. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and/or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

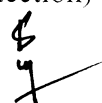
X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the

District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10} , SO_2 , NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form- V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIAIEMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false / fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.







- xii. The Ministry / any other competent Authority may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry / SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010
- xvii. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.

EC Conditions for Under Ground Coal Mine.

I. Statutory Compliance

- i. The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project.
- ii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- iii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iv. The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site- Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area).
- v. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water

(Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.

- vi. The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- vii. Solid waste/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016.

II. Air quality monitoring and preservation

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. to be carried out at least once in six months. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB.
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/ mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- iv. Major approach roads shall be black topped and properly maintained.
- v. The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.
- vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centers.
- vii. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor

- gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- viii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

III. Water quality monitoring and preservation

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-1A.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEF&CC/RO.
- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- vi. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river / nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
- vii. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff.
- viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development

etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

- ix. Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.
- x. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xi. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan! EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.
- xii. The project proponent shall take all precautionary measures to ensure reverian / riparian ecosystem in and around the coal mine upto a distance of 5 km. A revarian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

IV. Noise and Vibration monitoring and prevention

- i. Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.
- ii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

V. Mining Plan

- i. Mining shall be carried out under strict adherence to provisions of the Mines Act, 1952 and subordinate legislations made there-under as applicable.
- ii. No change in mining method *i.e.* UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).

- iii. Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- iv. Underground work place environmental conditions shall be rendered ergonomic and au breathable with adequate illumination in conformance with DGMS standards.
- v. No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
- vi. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

VI. Land reclamation

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.
- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- v. A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
- vi. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.
- vii. Native tree species shall be selected and planted over areas affected by subsidence.







- viii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

VII. Green Belt

- i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. Action plan, in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- ii. Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

VIII. Public hearing and Human health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The Project Proponent shall undertake Occupational Health survey for initial and Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.
- iii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
- v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
- vi. Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable.
- vii. The project proponent shall follow the mitigation measures provided in this Ministry'S OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014,

titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2013, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental/forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.



- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry / any other competent Authority may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry / SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India./ High Courts and any other Court of Law relating to the subject matter.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

- xvi. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.

EC Conditions for Coal Washery

1. Statutory compliance:

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- vi. Solid waste/hazardous waste generated in the washery needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016.
- vii. Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories Act, 1957 and subordinate legislations made there under.

2. Air quality monitoring and preservation

- i. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th November, 2009 shall be complied with.
- ii. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.
- iii. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the

stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

- iv. Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board
- v. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.
- vi. Covered trucks shall be engaged for mineral transportation outside the washery upto the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.
- vii. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.
- viii. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.
- ix. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
- x. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.
- xi. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

3. Water quality monitoring and preservation

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-

20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.

- iii. Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.
- iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.
- v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
- vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run off from reject dumping sites
- vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake *etc.* with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.
- viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.
- ix. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.
- x. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m³/tonne of raw coal.
- xi. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- xii. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- xiii. The project proponent shall take all precautionary measures to ensure riverine/ riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be



prepared and implemented in consultation with the irrigation / water resource department in the state government.

4. Noise and Vibration Monitoring and Prevention

- i. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.
- ii. Adequate measures shall be taken for control of noise levels as per noise pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

5. Coal beneficiation

- i. Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.
- ii. Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

6. Green Belt

- i. Three tier greenbelt comprising of a mix of native species, of minimum 30 m width shall be developed all along the washery area to check fugitive dust emissions and to render aesthetic to neighbouring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.
- ii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

7. Public Hearing and Human Health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six- monthly basis.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.



- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- v. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

8. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental/forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry / Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

9. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.







- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/JEMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made.
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry / any other competent Authority may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry / SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- xvii. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.

Sd/-

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Memo No. : EC/SEIAA/2022-23/2886/2022/214

Ranchi, Date : 14/08/2023

Copy to:

1. Additional Chief Secretary, Department of Forests, Environment & Climate Change, Govt. of Jharkhand.
2. Deputy Commissioner, District – Dhanbad, Jharkhand.
3. Divisional Forest Officer, Dhanbad Forest Division, Dhanbad, Jharkhand.
4. Divisional Forest Officer, Wildlife Division, Hazaribag, Jharkhand.
5. Director IA Division, Monitoring Cell, MoEF and Climate Change, Indira Paryavaran Bhavan, Jorbag Road, Aliganj, New Delhi – 110003.
6. Integrated Regional Office, Ranchi, Ministry of Environment, Forest and Climate Change, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
7. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
8. Secretary, Jharkhand State Expert Appraisal Committee, Ranchi.
9. Website.
10. Guard file.

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand



