

MINUTES OF 12th MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENT APPRAISAL OF COAL MINING PROJECTS HELD DURING 5th - 7th JUNE, 2024 THROUGH VIRTUAL MODE.

At the outset, the Chairman welcomed the Expert members & other participants and requested to start the proceeding as per the agenda listed for this meeting. The list of Members who participated in the meeting is at ANNEXURE VIII. The Standard/Generic EC & ToR conditions shall be system generated through the PARIVESH Portal.

Confirmation of the Minutes of the 11th Meeting of the EAC (Coal): The minutes of the 11th Meeting of the EAC (Coal) held during 8th & 9th May 2024 have been confirmed by the EAC.

Agenda No. 12.1

Proposal for Expansion of Dinesh (Makardhokra-III) Opencast Coal Mine project from 4.2 MTPA to 4.5 MTPA (increase of 10% w.r.t 3.0 MTPA) in an ML area of 919.63 ha, located at villages Katara, Makardhokada, Sukli, Bopeshwar, Heoti Tahsil Umrer District Nagpur, State Maharashtra by of Western Coalfields Limited – For Reconsideration of Environmental Clearance under OM dated 07.05.2022 – Reg

[Proposal No. IA/MH/CMIN/412454/2022; File No. J-11015/537/2008-IA-II(M); Consultant: CMPDIL; NABET/EIA/2124/RA 0258 valid till 22/08/2024]

12.1.1: The proposal is for revalidation of Environmental Clearance granted vide Letter no. J-11015/ 537/2008-IA-II(M) dated 26.05.2022 for 4.5 MTPA to Dinesh (Makardhokra-III) Opencast Coal Mine project of Western Coalfields Limited in leasehold area of 919.63 ha Ha, submitted in compliance of OM dated 07.05.2022 after 10% enhancement in capacity located at villages Katara, Makardhokada, Sukli, Bopeshwar, Heoti Tahsil Umrer District Nagpur, State: Maharashtra.

The PP obtained EC under OM dated 07.05.2022 after a 10% enhancement in capacity. As per clause 6(iv) of the said OM, PP shall submit a Certified Compliance Report of the EC grated for 40% expansion, along with an EIA/EMP report, prepared based on standard TORs for the additional capacity of 10% on PRIVESH portal within six months of enhancement of production beyond 40%. PP applied vide proposal no. IA/MH/CMIN/412454/2022 Dated 30.12.2022 submitted a copy of EIA/EMP report, Form-1 and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project.

The project falls under Schedule 1(a) of mining and is a Category - “A” project as per EIA notification 14th September 2006 (as amended) as the mining lease area is more than 500 Ha and require appraisal at Central Level.

12.1.2: The proposal was considered in the 39th EAC meeting held during 12-13th January 2023 and 46th EAC held during 26-27th June 2023 wherein the committee has deferred the proposal for want of additional information. The PP submitted the information vide its letters dated 31.05.2023 and 26.04.2024. PP also uploaded

information on PARIVESH Portal. The information so far submitted by the PP w.r.t observations of EAC are as follows: -

S.No	ADS sought by EAC during the meeting held during 12-13 th January 2023	Reply of PP
1.	PP shall submit the vetted ATR of certified compliance report of the EC letter dated J-11015/537/2008-IA.II (M) dated 29.11.2018 granted for total 40 % expansion	<p>The certified copy of EC compliance report (w.r.t. EC vide no. J-11015/537/2018-IA-II (M) dated 29/11/2018 - 4.20 MTPA) was secured from IRO, MOEF & CC Nagpur vide letter no. EC-1739/RON/2022-NGP/10457 dated 17/10/2022. In the a foresaid Certified Copy of Compliance Report, there was only one no. partially complied condition for which the action taken report was submitted to IRO, MOEF & CC, Nagpur vide letter no. WCL/SAM/MKD/ENVT/2022/337 dated 03/11/2022.</p> <p>Now, as directed by 39th EAC, for the needful compliance of directives, a formal request letter for obtaining vetted action taken report has been submitted to Integrated Regional Office, MoEF&CC, Nagpur vide letter dated 22.05.2023.</p> <p>The nature of partially complied condition pertains to delay of more than 7 days in newspaper advertisement regarding EC letter. It may be mentioned here that, the EC letter for the project was issued on 28.11.2018 and advertisement was published on 19.12.2022. Thus, project proponent has requested for condoning delay of additional 13 days in action taken report submitted to IRO, MoEF & CC on 03.11.2022.</p> <p>The matter regarding issuance of vetted ATR was discussed with RO, MoEF&CC, Nagpur wherein it was informed that the partially complied condition pertaining to delay of EC advertisement does not require formal issuance of closure report/ vetted ATR.</p>

2.	<p>After achieving the production capacity and complying all specific condition mentioned in the EC letter, PP shall re-collect Baseline data after achieving the production capacity granted for total 40 % expansion along with revised EIA- EMP report incorporating the major changes and their implications.</p>	<p>In compliance of observation made in 39th EAC meeting, the baseline data was recollected from 15th January to 15th April, 2023 in order to submit the revised EIA-EMP report by May'23 (to comply with point 7 of EAC observations).</p> <p>The coal production from the mine during 2022-23 was 3.00 MTPA. The impact assessment study has been conducted for incremental production capacity from 3.00 MTPA (achieved in 2022-23) to 4.50 MTPA (proposed in 2023-24). All the specific conditions as mentioned in EC letter has been complied as noted by the IRO,MoEF & CC, Nagpur in its certified compliance report dated 17.10.2022. Based on re-collected baseline data, revised EIA-EMP report has been prepared by incorporating changes and their implications.</p>																																			
3.	<p>PP shall submit the status of ETP along with the plan for addition of recycling setup.</p>	<p>The ETP of Dinesh OC mine is in operation and continuously monitored for effluent quality.</p> <p>The existing annual operation and maintenance contract of the said ETP is for a period of two years (25.11.2021 to 24.11.2023) and amounting to Rs 6.75 Lakhs. It includes regular running and maintenance along with removal of silt from all tanks. The water treated from the ETP is utilised is being re-circulated to vehicle washing ramp. The sludge from ETP is dried in sludge drying bed and disposed off through Authorised TSDF operator (M/s Maharashtra Enviro Power Limited, Nagpur).</p> <p>To ensure compliance of effluent standards, monitoring of the ETP effluent is carried out by CMPDIL Nagpur on fortnightly basis. The effluent water quality of ETP for previous 02 years is provided below:</p> <table border="1"> <thead> <tr> <th>Date of Sample</th> <th>pH</th> <th>TSS (in mg/l)</th> <th>COD (in mg/l)</th> <th>O & G (in mg/l)</th> </tr> </thead> <tbody> <tr> <td>05.03.2021</td> <td>7.7</td> <td>30</td> <td>44</td> <td>BDL</td> </tr> <tr> <td>21.03.2021</td> <td>7.78</td> <td>28</td> <td>40</td> <td>BDL</td> </tr> <tr> <td>10.04.2021</td> <td>7.19</td> <td>32</td> <td>40</td> <td>BDL</td> </tr> <tr> <td>24.04.2021</td> <td>7.55</td> <td>36</td> <td>48</td> <td>BDL</td> </tr> <tr> <td>07.05.2021</td> <td>7.52</td> <td>20</td> <td>32</td> <td>BDL</td> </tr> <tr> <td>22.05.2021</td> <td>7.21</td> <td>26</td> <td>36</td> <td>BDL</td> </tr> </tbody> </table>	Date of Sample	pH	TSS (in mg/l)	COD (in mg/l)	O & G (in mg/l)	05.03.2021	7.7	30	44	BDL	21.03.2021	7.78	28	40	BDL	10.04.2021	7.19	32	40	BDL	24.04.2021	7.55	36	48	BDL	07.05.2021	7.52	20	32	BDL	22.05.2021	7.21	26	36	BDL
Date of Sample	pH	TSS (in mg/l)	COD (in mg/l)	O & G (in mg/l)																																	
05.03.2021	7.7	30	44	BDL																																	
21.03.2021	7.78	28	40	BDL																																	
10.04.2021	7.19	32	40	BDL																																	
24.04.2021	7.55	36	48	BDL																																	
07.05.2021	7.52	20	32	BDL																																	
22.05.2021	7.21	26	36	BDL																																	

		08.06.2021	7.54	20	24	BDL
		23.06.2021	7.36	28	20	BDL
		14.07.2021	7.93	32	40	BDL
		25.07.2021	7.8	34	36	BDL
		03.08.2021	7.72	20	48	BDL
		17.08.2021	7.96	24	36	BDL
		13.09.2021	8.07	20	28	BDL
		28.09.2021	7.93	32	44	BDL
		23.10.2021	8.1	22	36	BDL
		13.11.2021	7.91	32	40	BDL
		20.11.2021	7.86	28	36	BDL
		08.12.2021	7.49	34	40	BDL
		18.12.2021	7.6	36	28	BDL
		04.01.2022	8.1	22	36	BDL
		18.01.2022	7.94	26	40	BDL
		12.02.2022	7.65	36	28	BDL
		24.02.2022	7.45	40	80	BDL
		15.03.2022	7.9	36	56	BDL
		20.03.2022	7.56	42	72	BDL
		14.04.2022	7.84	34	64	BDL
		26.04.2022	7.45	30	76	BDL
		12.05.2022	8.02	26	68	BDL
		27.05.2022	7.49	30	80	BDL
		12.06.2022	8.17	28	88	BDL
		26.06.2022	7.58	36	36	BDL
		06.07.2022	8.1	36	40	BDL
		20.07.2022	8.08	28	36	BDL
		07.08.2022	8.13	32	24	BDL
		20.08.2022	7.92	40	40	BDL
		06.09.2022	7.91	34	52	BDL
		21.09.2022	7.86	42	56	BDL
		20.11.2022	7.75	48	40	BDL
		06.12.2022	7.81	44	36	BDL

		<table border="1"> <tr> <td>22.12.2022</td> <td>7.04</td> <td>48</td> <td>40</td> <td>BDL</td> </tr> <tr> <td>06.01.2023</td> <td>7.56</td> <td>48</td> <td>52</td> <td>BDL</td> </tr> <tr> <td>20.01.2023</td> <td>8.15</td> <td>42</td> <td>44</td> <td>BDL</td> </tr> <tr> <td>06.02.2023</td> <td>7.89</td> <td>42</td> <td>48</td> <td>BDL</td> </tr> <tr> <td>20.02.2023</td> <td>7.65</td> <td>36</td> <td>40</td> <td>BDL</td> </tr> <tr> <td>05.03.2023</td> <td>8.02</td> <td>36</td> <td>52</td> <td>BDL</td> </tr> <tr> <td>24.03.2023</td> <td>7.64</td> <td>28</td> <td>48</td> <td>BDL</td> </tr> </table> <p>PP also submitted the flow diagram of ETP and photographs of ETP under Operation during the RO visit.</p>	22.12.2022	7.04	48	40	BDL	06.01.2023	7.56	48	52	BDL	20.01.2023	8.15	42	44	BDL	06.02.2023	7.89	42	48	BDL	20.02.2023	7.65	36	40	BDL	05.03.2023	8.02	36	52	BDL	24.03.2023	7.64	28	48	BDL
22.12.2022	7.04	48	40	BDL																																	
06.01.2023	7.56	48	52	BDL																																	
20.01.2023	8.15	42	44	BDL																																	
06.02.2023	7.89	42	48	BDL																																	
20.02.2023	7.65	36	40	BDL																																	
05.03.2023	8.02	36	52	BDL																																	
24.03.2023	7.64	28	48	BDL																																	
4.	PP shall submit the mine photographs including the dump, 3-tier plantation, ETP and other major mine component certified by the technical department head.	PP submitted the Mine photographs including the dump, plantation, ETP and other major mine component certified by the technical department head.																																			
5.	PP shall submit the valid NOC from CGWA for the withdrawal of Ground water.	<p>As per the above observation, NOC is obtained from CGWA for abstracting Ground Water (NOC No. CGWA/NOC/MIN/ORIG/2019/5548) which was valid up to 09/06/2021. Renewal application for NOC is submitted to CGWA on 07/06/2021.</p> <p>Presently the application is under consideration at CGWA, Delhi and for which online status is displayed as 'Approved'. Formal issuance of certificate is awaited.</p> <p>PP also enclosed the screenshot of the status CGWA NOC of Makardhokra-III (Dinesh) OC Mine on the NOCAP portal.</p>																																			

6.	PP shall submit the status of expenditure plan for the already allocated in Public Hearing Budget including the amount that has been spent already or going to spend in future.	Public hearing for Dinesh OC Mine was conducted on 20.10.2010. All the issues raised in public hearing were duly addressed and present status for the same as desired (Expenditure Vis-a vis Budget Provisions) are provided in Section 7.2 of Chapter-VII of this report. Expenditure done through CSR in various villages in the command area of Dinesh OC Mine since FY 2010-11 is also provided Section 7.2 of Chapter-VII of this report.
7.	Proposal should be resubmit the proposal for review by May 2023.	Noted and Complied with.

S. No:	ADS sought by EAC during the meeting held during 26-27th June 2023	Reply of PP			
1.	PP must achieve the production capacity of 4.5 MTPA for availing the recommendation of already issued EC dated 26.05.2023 under OM dated 07.05.2022	EC has been accorded by MoEF & CC vide its letter no. J-11015/537/2008-IA.II(M) dated 26.05.2022 pertaining to Expansion of Dinesh (Makardhokra -III) Opencast Coal mining project for increase in production capacity from 4.2 MTPA to 4.5 MTPA in land area of 919.63 Ha. The project achieved 4.43 Mt of coal production during 2023-24.			
		Year	EC sanctioned Capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
		2023-24	4.50	4.43	Nil
2.	PP shall initiate the plantation all along the periphery, and slope of OB dump as well construct retaining wall with	A dedicated CC Road is under construction. The plantation activities have been taken up in the mine from FY 2022-23. Till 2023-24, the plantation of 45,000 saplings has been completed in 18 ha of land area. This includes 16.0 ha land periphery and 2.0 ha over the slope of OB dump. Expenditure of Rs 58.31 Lakhs has been made on the plantation activities till 2023-24. In next 4 years, total 4,10,000			

	proper drain. garland	<p>saplings in 164 ha of project area are proposed for plantation. Budgetary provision of Rs 12.77 crore has been kept for the plantation activities.</p> <p>The biological reclamation of OB dump and slope of OB dump will be completed in by 2027-28 in 150 ha.</p> <p>Status of plantation along periphery and slope of the OB dump is placed below for kind perusal:</p> <table border="1"> <thead> <tr> <th>Sl. No</th> <th>Year of plantation</th> <th>No of plants</th> <th>Area in Ha</th> <th>Budgetary provision (Amount in Rs Lakhs)</th> <th>Expenditure in Rs Lakhs</th> <th>Location</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2022-23</td> <td>15,000</td> <td>6.0</td> <td>46.33</td> <td>29.59</td> <td>Periphery</td> <td></td> </tr> <tr> <td rowspan="2">2</td> <td rowspan="2">2023-24</td> <td>25,000</td> <td>10.0</td> <td rowspan="2">85.81</td> <td rowspan="2">3.30</td> <td>Periphery</td> <td></td> </tr> <tr> <td>5,000</td> <td>2.0</td> <td>OB Dump</td> <td></td> </tr> <tr> <td></td> <td>Sub- Total (1+2)</td> <td>45,000</td> <td>18.0</td> <td>132.14</td> <td>58.31</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>2024-25</td> <td>25,000</td> <td>10.0</td> <td>65.81</td> <td>-</td> <td>OB Dump</td> <td>Agreement completed. Preparatory activities in progress.</td> </tr> </tbody> </table>	Sl. No	Year of plantation	No of plants	Area in Ha	Budgetary provision (Amount in Rs Lakhs)	Expenditure in Rs Lakhs	Location	Remarks	1	2022-23	15,000	6.0	46.33	29.59	Periphery		2	2023-24	25,000	10.0	85.81	3.30	Periphery		5,000	2.0	OB Dump			Sub- Total (1+2)	45,000	18.0	132.14	58.31			3	2024-25	25,000	10.0	65.81	-	OB Dump	Agreement completed. Preparatory activities in progress.
Sl. No	Year of plantation	No of plants	Area in Ha	Budgetary provision (Amount in Rs Lakhs)	Expenditure in Rs Lakhs	Location	Remarks																																							
1	2022-23	15,000	6.0	46.33	29.59	Periphery																																								
2	2023-24	25,000	10.0	85.81	3.30	Periphery																																								
		5,000	2.0			OB Dump																																								
	Sub- Total (1+2)	45,000	18.0	132.14	58.31																																									
3	2024-25	25,000	10.0	65.81	-	OB Dump	Agreement completed. Preparatory activities in progress.																																							

		Sub-Total (1+2+3)	70,000	28.0	197.95	-		
4	2025-26		75,000	30.0	296.14	-	OB Dump no. 4	MoU undeway.(Budgetary provisions may vary as per MoU).
			37,500	15.0		-	OB Dump no. 3	
			10,000	4.0	26.32	-	Plain land	
5	2026-27		75,000	30.0	296.14	-	OB Dump no. 4	
			37,500	15.0			OB Dump no. 3	
			10,000	04.0	26.32		Plain land	
6	2027-28		1,00,000	40.0	394.86		OB Dump no. 4	
			50,000	20.0			OB Dump no. 3	
			15,000	06.0	39.48		Plain land	
		Sub Total (4+5 +6)	4,10,000	164.0	1,079.26			
		Total (1 to 6)	4,80,000	192.0	1,277.21			

		<p>PP Submitted that most of the plantation activities will be carried out from 2025-26 to 2027-28 after completion of OB dumping as envisaged in the Mining Plan. PP also submitted the photographs of plantation done on OB dump and peripheri.</p> <p>As regards retaining Wall PP submitted that Gabion wall has been constructed along the toe of OB dump. The work of “Making gabion structure along toe of the OB dump” was awarded vide work order dated 24 /25 .08.2023 for the total value of Rs 34,12,560.00 (Rupees Thirty four lakhs twelve thousand five hundred and sixty only). PP submitted the photo of Gabion Wall.</p> <p>PP further submitted that the garland has been constructed for length of 7.6 Kms with depth of 1.8 km. The top width is 2.5 m and bottom width is 1.50 m of garland drain constructed in the project. PP also submitted the photo of garland drain.</p>
3.	<p>PP shall submit the status of plantation i.e. 30% of total project area through proper drone video along with budgetary provision.</p>	<p>The existing EC has been granted for the land area involved in Phase-I of the Project i.e. 919.63 ha. The mine will continue to operate in Phase-II. Most of the backfilling activities and reclamation of OB dump is proposed in Phase-II. Thus plantation in the land area of 192.0 ha is proposed in the Phase-I. This is approx. 20% of the project area of Phase-I. As per the approved Project Report that includes Phase-II, 1098.0 ha land area out of total land area of 1923.33 ha will be planted till completion of mine closure activities of the project. This will be approx. 57% of the project area much higher than the proposed 30% area under plantation.</p> <p>During initial phase of the mine the plantation activities are mostly limited to vacant land available. After completion of dumping activities over the designated OB dumps, the technical reclamation is carried out. On completion of technical reclamation, the plantation activities are proposed. In the combined project report of Phase-I and Phase-II, all the external dumps and internal dumps are proposed to be planted after technical reclamation.</p> <p>At present due to limited availability of completed OB dumps, only 2.00 ha land area has been planted over. As mining activities proceed and OB dumps are complete with overburden quantity as envisaged in the mining plan, plantation will be carried out. In next 4 years’ plantation will be carried out in 174 ha land within the project area with</p>

4.35 Lakhs saplings. The drone video showing the area under plantation has been prepared. Budgetary provision of Rs 12.77 crore has been kept for the plantation activities.

Sl. No	Year of plantation	No of plants	Area in Ha	Budgetary provision (Amount in Rs Lakhs)	Expenditure in Rs Lakhs	Location	Remarks
1	2022-23	15,000	6.0	46.33	29.59	Periphery	
2	2023-24	25,000	10.0	85.81	43.30	Periphery	
		5,000	2.0			OB Dump	
	Sub-Total (1+2)	45,000	18.0	132.14	58.31		
3	2024-25	25,000	10.0	65.81	-	OB Dump	Agreement completed. Preparatory activities in progress.
	Sub-Total (1+2+3)	70,000	28.0	197.95	-		

		4	2025-26	75,000	30.0	296.14	-	OB Dump no. 4	MoU under way. (Budgetary provisions may vary as per MoU).
				37,500	15.0		-	OB Dump no. 3	
				10,000	4.0	26.32	-	Plain land	
		5	2026-27	75,000	30.0	296.14	-	OB Dump no. 4	
				37,500	15.0			OB Dump no. 3	
				10,000	04.0	26.32		Plain land	
		6	2027-28	1,00,000	40.0	394.86		OB Dump no. 4	
				50,000	20.0			OB Dump no. 3	
				15,000	06.0	39.48		Plain land	
				Sub Total (4+5+6)	4,10,000	164.0	1,079.26		
		Total (1 to 6)	4,80,000	192.0	1,277.21				

4.	PP shall submit the NoC from CGWA for extracting ground water	<p>NOC from CGWA for groundwater dewatering / abstraction has been secured vide NOC no. CGWA/NOC/MIN/ORIG/2019/5548 with a validity from 10/06/2019 upto 09.06.2021. CGWA NOC (1st) renewal application (no. 21-4/1023/MH/MIN/2017) was submitted on 07.06.2021, the application is under consideration for grant of renewal at CGWA. The CGWA NOC 1st renewal is approved however the formal NOC letter is awaited.</p> <p>The CGWA NOC 2nd renewal application for the period of 10.06.2023 to 09.06.2025 has also been submitted through email mode. The application is also under consideration for grant of NOC renewal.</p>																					
5.	PP shall submit the progress report for the construction work of railway siding with silo and belt arrangement. The PP shall commission the mechanized system before December 2023.	<p>The first project for construction of railway siding with silo and belt arrangement (first mile connectivity) of Western Coalfields Limited was proposed in this project. The work was awarded for construction of Silo with belt conveyor with total cost of 441.98 crore on 10.03.2021. The 91% work of Coal Handling Plant including silo and belt conveyor has been completed till 12.04.2024. The 58% work of railway siding has been completed till 12.04.2024.</p> <p>The mechanize system of coal transportation is likely to be commissioned by 30.06.2024.</p> <p>The progress report for the construction work of railway siding with silo and belt arrangement is placed below for kind consideration:</p> <p>Coal Handling Plant / Silo</p> <table border="1"> <thead> <tr> <th>Sl. No</th> <th>Particulars</th> <th>Status as on 12.04.2024</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Value of work in Rs.Crore</td> <td>441.97</td> </tr> <tr> <td>2</td> <td>Progressive Expenditure in Rs. Crore</td> <td>318.48</td> </tr> <tr> <td>3</td> <td>Overall Progress</td> <td>91 %</td> </tr> <tr> <td>4</td> <td>Date of completion</td> <td>30th June 2024</td> </tr> </tbody> </table> <p>Railway Siding</p> <table border="1"> <thead> <tr> <th>Sl. No</th> <th>Particulars</th> <th>Status as on 12.04.2024</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Sl. No	Particulars	Status as on 12.04.2024	1	Value of work in Rs.Crore	441.97	2	Progressive Expenditure in Rs. Crore	318.48	3	Overall Progress	91 %	4	Date of completion	30th June 2024	Sl. No	Particulars	Status as on 12.04.2024			
Sl. No	Particulars	Status as on 12.04.2024																					
1	Value of work in Rs.Crore	441.97																					
2	Progressive Expenditure in Rs. Crore	318.48																					
3	Overall Progress	91 %																					
4	Date of completion	30th June 2024																					
Sl. No	Particulars	Status as on 12.04.2024																					

		1	Total Track length in Km	6.44
		2	Value of work in Rs. Crore	120.52
		3	Overall Progress	58%
		4	Date of Completion	30th June 2024
		PP also submitted the photographs of site showing the physical progress of the construction of railway siding with silo and belt.		

The proposal is now considered in 12th EAC meeting wherein the PP and NABET Accredited consultant made a detailed presentation on the ADS points raised. The Committee, observed that the instant project has been submitted in compliance of Ministry's OM dated 7th May, 2022 wherein expansion in capacity was granted in advance (10% beyond already granted 40% from the existing base capacity) subject to certain conditions related to submission of EIA-EMP report and compliances of existing EC conditions within six months along with other statutory requirements. This EC was granted on 26th May, 2022 by MoEF&CC due to shortage of coal in the country and as per the condition contained therein.

The Committee deliberated the reply submitted by the PP. After deliberation Committee observed the following:

- 1) The Committee observed that PP has achieved 98.4% (4.43 MTPA) of the target production of 4.5 MTPA and is of the view that PP shall achieve the remaining as recommended in EC dated 26.05.2022.*
- 2) The Committee observed that as per the photographs showed during the meeting including the gabion wall, there is a scope of further plantation along the dump slopes and the density of the plantation can further be increased. The Committee is of the view that PP shall plant the saplings in this monsoon and submit the status of the same along with photographs. Further, the plantation proposed for 2024-25 shall be expedited and status of the same needs to be submitted.*
- 3) The Committee observed that CGWA permission is awaited even for the second renewal and PP shall follow up with the concerned department and submit the copy of NOC/status as the case may be.*
- 4) The Committee noted that 91% of CHP/ Silo work and 58% of Railway siding work is completed till 12.04.2024. PP submitted that the work will be completed by 30.06.2024. PP showed the photographs of the construction of CHP and belt conveyor system. The Committee showed its displeasure on submission of photographs as the same are not having geo-coordinates and not having date.*

Further, there are difference in data submitted in the brief note and other documents. The Committee advised that consultant should be more caution in further for such issues.

- 5) PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 2 years only. PP should submit the separate plan for Phase-I.
- 6) The Committee also deliberated on the CCR dated 17.10.2022 and its ATR dated 03.11.2022.
- 7) Further, it was informed to the Committee that certain suggestions/observations for/against the project are received in the Ministry. The Committee is of the view that the same may be forwarded to PP for necessary action and submit the reply for the same.

Based on the discussion held and the document submitted the Committee **deferred** the proposal for want of following additional information:

- i. PP shall submit the progress report for the construction work of railway siding with silo and belt arrangement. The PP shall commission the mechanized system by 30.06.2024.
- ii. PP shall plant the saplings (including gap plantation) in this monsoon and submit the status of the same along with photographs. Plantation proposed for 2024-25 shall be expedited and status of the same needs to be submitted. PP shall densify the plantation all along the periphery, and slope of OB dump. PP shall submit the status of plantation i.e. 33% of total project area through proper drone video along with budgetary provision.
- iii. PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale

the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 2 years only. PP should submit the separate plan for Phase-I.

- iv. *PP shall follow up with the CGWA and submit the copy of NOC/status as the case may be.*
- v. *PP shall submit the photographs with geo-coordinates and date.*
- vi. *PP shall provide reply to the observation received in the Ministry.*
- vii. *PP shall submit a plan for use of e-vehicles to reduce specific diesel consumption along with timelines and budgetary provision.*
- viii. *PP shall submit the latest CCR along with ATR and comments of RO MoEFCC*

Agenda No. 12.2

Proposal for Amendment in Environment Clearance (EC) of Baranj Opencast Mining Project, located at Villages: Bonthala, Somnala, Chek Baranj, Kadholi, Kesurli, Chinchordi, Barang Mokasa, Sub-District: Bhadravati, District: Chandrapur, State: MAHARASHTRA (ML Area 1457.2 Ha, capacity 3.0 MTPA), by Karnataka Power Corporation Ltd –Amendment in EC – Reg.

[Proposal No. IA/MH/CMIN/468727/2024; File No. J-11015/400/2005-IA-II(M); Consultant: Srushti Seva Private Limited; NABET/EIA/2124/RA0254 Valid till 05/12/2024]

12.2.1 The proposal is for amendment in Environment Clearance dated 11.09.2023 for Baranj Opencast Mining Project with production capacity of 3.0 MTPA in ML Area of 1457.2 Ha of Karnataka Power Corporation Ltd located at Villages: Bonthala, Somnala, Chek Baranj, Kadholi, Kesurli, Chinchordi, Barang Mokasa, Sub-District: Bhadravati, District: Chandrapur, State: MAHARASHTRA.

12.2.2 Earlier the Environment clearance for the project was granted under EIA Notification, 2006 vide Ministry's letter no J-11015/400/2005-IA.II(M) dated 18.05.2006 for a capacity of 2.5 MTPA in an area of 1457.20 Ha to Karnataka Emta Coal Mines Ltd.. The project has been transferred from Karnataka Emta Coal Mines Ltd to M/s Karnataka Power Corporation Limited vide letter No. J-11015/400/2005-IA.II (M) dated 06.07.2015 for 2.5 MTPA in the lease area of 1457.20 ha. Thereafter, PP was granted the EC for an

area of 1457.20 Ha for a capacity of 3.0 MTPA under OM dated 11.04.2022 for 20% enhancement, vide EC dated 11.09.2023.

12.2.3 The PP now has made an application vide proposal no. IA/MH/CMIN/468727/2024 dated 18.05.2024 on PARIVESH portal under Form-4, to amend the specific condition no.'s 4(ii), 4(iii), 4(v), 4(vi), 4(xi), 4(xii) and 4(xvii) of the EC letter dated 11.09.2023. PP has submitted the application seeking following amendments along with justification:

Ref No	EC Conditions	Amendment required	Justification
ii	PP shall construct permanent boundary wall all along the boundary wall of Ordinance factory within 1 year. SPCB shall grant the CTO accordingly.	PP shall construct barbed wire fencing all along the boundary wall of Ordinance factory within 1 year. SPCB shall grant the CTO accordingly.	PP shall construct barbed wire fencing all along the boundary wall of Ordinance factory within 1 year. SPCB shall grant the CTO accordingly.
iii	PP shall revise the mining plan as per latest guidelines of Ministry of Coal (issued in 2019 or 2020) including the incorporation of latest mining method and safety norms and excluding 200 ha of mine lease area declared as non-mining zone locating near to Ordinance factory. Accordingly, SPCB shall issue the CTO.	PP shall revise the mining plan as per latest guidelines of Ministry of Coal (issued in 2019 or 2020) including the incorporation of latest mining method and safety norms and including 200 ha of mine lease area located near to Ordinance factory.	Approximately 24 MT coal will be lost. This area is proposed to be mined without blasting. Life of BTPS is directly dependent upon the life of IBOCM.
v	The Mine Plan shall restrict mining and dumping of OB with in the 200 ha of mine lease area declared as non-mining zone lies along the boundaries of Ordinance Factory.	Mining shall be strictly carried out without blasting in this 200 Ha area.	Using Ripper Dozer and Terrain leveler & Surface Miner will ensure that there shall no impact to Ordinance Factory.

Ref No	EC Conditions	Amendment required	Justification
vi	PP shall obtain No Objection Certificate from Archeological Survey of India for blasting for its impact on Bhadravati Fort and Vijasan Ancient Caves. Further install the vibration monitoring facilities at these locations. DGMS shall ensure that vibration values are within the stipulated guidelines of Archeological Survey of India (if any).	No Objection Certificate from Archeological Survey of India may kindly be waived.	Both the mentioned historical Structures are approx. 4 Km away from the boundary of the mine and way beyond the blasting zone. No impact is envisaged.
xi	PP shall deploy at least 20% of overall fleet of dumpers/trucks as electrical or CNG/LNG based dumpers/trucks for transportation of coal/OB etc and deploy e-vehicles for workers/staff in/out of the mine.	Kindly make this condition optional and not mandatory for coal/OB transportation.	Non-availability of electric/CNG/LNG based dumpers/trucks for transportation of coal/OB etc.
xii	PP shall deploy the truck size of upto 40 tonnes (payload) for transportation of coal by road in covered trucks. PP shall deposit requisite amount for maintenance of road used for coal transportation till Majri Railway siding (7 km). No other siding shall be used if in case it is beyond 7 km distance.	This condition may be modified till the expansion of Majri Rly siding is implemented.	The process of expansion of Majri siding will take time and as an interim measure, we will have to use alternate railway siding which may be beyond 7km. Therefore, we request you to kindly waive off this specific condition.

Ref No	EC Conditions	Amendment required	Justification
xvii	No coal transportation shall be done through sensitive locations such as villages, hospitals, school etc.	Adequate Mitigative measures for safety and control of pollution near the sensitive locations on existing transport road should be implemented.	All mitigating measures suggested by CPCB/MPCB are being taken to mitigate pollution. Though PP shall endeavour to avoid coal transportation through sensitive locations, it may not be feasible to completely avoid the same.

12.2.4 Deliberation by the EAC in the meeting:

PP along with NABET Accredited consultant made a detailed presentation on amendment required in EC conditions and justification provided for the same by PP. After detailed deliberation Committee observed the following:

Ref No	EC Conditions	Amendment required	Observation of EAC
ii	PP shall construct permanent boundary wall all along the boundary wall of Ordinance factory within 1 year. SPCB shall grant the CTO accordingly.	PP shall construct barbed wire fencing all along the boundary wall of Ordinance factory within 1 year. SPCB shall grant the CTO accordingly.	PP shall discuss the matter with the Ordinance Factory first and obtain the necessary permission/comments as the case may be before seeking amendment in this condition.
iii	PP shall revise the mining plan as per latest guidelines of Ministry of Coal (issued in 2019 or 2020) including the incorporation of latest	PP shall revise the mining plan as per latest guidelines of Ministry of Coal (issued in 2019 or 2020) including the incorporation of latest	The Committee is of the view that as mentioned in Para 86 Common Cause vs UoI that “..This is regardless of the quantum of extraction

Ref No	EC Conditions	Amendment required	Observation of EAC
	mining method and safety norms and excluding 200 ha of mine lease area declared as non-mining zone locating near to Ordinance factory. Accordingly, SPCB shall issue the CTO.	mining method and safety norms and including 200 ha of mine lease area located near to Ordinance factory.	<i>permissible in the mining plan or the mining lease and regardless of the duration of the mining lease.... Thus, the EC takes precedence over the mining lease or to put it conversely, the mining operations under a mining lease are dependent on and 'subordinate' to the EC.</i>
v	The Mine Plan shall restrict mining and dumping of OB with in the 200 ha of mine lease area declared as non-mining zone lies along the boundaries of Ordinance Factory.	Mining shall be shall be strictly carried out without blasting in this 200 Ha area.	Further, PP while getting the mining plan approved mentioned in para 1.3 that PP shall comply with EC conditions. However, these restrictions were imposed in pursuant to recommendations of the High Power Committee for the protection of Ordinance Factory as per which there is a restriction of 3 KM from the boundary of Ordinance Factory for mining operations and also it was mentioned for development of green belt between the factory premises, colony and mine site. For this it is clear that mine plan should be in line with recommendations of the

Ref No	EC Conditions	Amendment required	Observation of EAC
			aforementioned committee.
vi	PP shall obtain No Objection Certificate from Archeological Survey of India for blasting for its impact on Bhadravati Fort and Vijasan Ancient Caves. Further install the vibration monitoring facilities at these locations. DGMS shall ensure that vibration values are within the stipulated guidelines of Archeological Survey of India (if any).	No Objection Certificate from Archeological Survey of India may kindly be waived.	The Committee asked the PP whether they have ever approached ASI for their comments. PP informed that they have not yet approached the ASI. The Committee was thus of the view that without taking any effort, PP is coming for amendment in EC condition. As the ASI may have some restriction for the development in nearby area and also for mining which not only have blasting but may also have air pollution related issues. Therefore, the Committee is of the view that PP first approach ASI.
xi	PP shall deploy at least 20% of overall fleet of dumpers/trucks as electrical or CNG/LNG based dumpers/trucks for transportation of coal/OB etc and deploy e-vehicles for workers/staff in/out of the mine.	Kindly make this condition optional and not mandatory for coal/OB transportation.	The Committee is of the view that PP shall approach the Manufacturers for the same and explore the possibility. In addition to this PP should also be using LMVs which can be easily shift from diesel to EV or on other cleaner fuels.

Ref No	EC Conditions	Amendment required	Observation of EAC
xii	PP shall deploy the truck size of upto 40 tonnes (payload) for transportation of coal by road in covered trucks. PP shall deposit requisite amount for maintenance of road used for coal transportation till Majri Railway siding (7 km). No other siding shall be used if in case it is beyond 7 km distance.	This condition may be modified till the expansion of Majri Rly siding is implemented.	The Committee is of the view PP shall first identify the railway siding to which coal is to be transported from mine. Transportation route needs to be shown, traffic study on the same needs to be done, impact needs to be assessed then only any decision of the same can be taken.
xvii	No coal transportation shall be done through sensitive locations such as villages, hospitals, school etc.	Adequate Mitigative measures for safety and control of pollution near the sensitive locations on existing transport road should be implemented.	The Committee is of the view that PP shall provide the details of the transportation route with location and type sensitive locations. Further assess the impact and propose the mitigative measure, compensation etc. to deliberate on this issue.

The Committee observed that from the CCR there are some partially/non-complied conditions. PP not has even constituted an Environment Management Cell. The Committee is of the view that PP shall comply with the EC conditions and submit and action taken report to concerned RO. The Committee also advised the consultant and PP to ensure that meeting shall only be attended by the PP and NABET Accredited consultant and online link provided by NIC to PP should not be shared with anyone else. The Committee with above observation **deferred** the proposal for want of above information.

Agenda No. 12.3

Proposal for grant of Terms of Reference (ToR) of Burapahar Coal Mine (Ib Valley Coalfield) (Lease Area 603 Ha; production capacity of 6.0 MTPA) of Gujarat Mineral Development Corporation Limited, located at Villages: Bhogarakachhara, Bijahan,

Bileimunda, Chakra, Jamkani, Jharapalanka, Mundelkhet & RF, Tehsil: Hemgir, District: Sundargarh, State: Odisha for conducting studies for Environmental Clearance (EC) of the allotted coal block. – Terms of Reference – Regarding.

[Proposal No. IA/OR/CMIN/465831/2024; File No. IA-J-11015/28/2024-IA-II(M); Consultant: JM EnviroNet Pvt. Ltd.; NABET/EIA/2326/RA 0308 Valid till 07/08/2026]

12.3.1: The present proposal is for the grant of Terms of Reference (ToR) for Burapahar Coal Mine (Ib Valley Coalfield) having mine lease area 603 Ha with production capacity 6.0 MTPA, located at Villages: Bhogarakachhara, Bijahan, Bileimunda, Chakra, Jamkani, Jharapalanka, Mundelkhet & RF, Tehsil: Hemgir, District: Sundargarh, State: Odisha.

Gujarat Mineral Development Corporation Limited (GMDC) has made an application online vide proposal no IA/OR/CMIN/465831/2024 dated 23.03.2024 in the prescribed format (Form-I) and submitted a pre-feasibility report for undertaking a detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 1(a) Under Category “A” (> 500 Ha) of the schedule of the EIA Notification, 2006 and appraised at the Central Level.

12.3.2: Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

12.3.2.1: Location:

- i) The project area is covered under Survey of India Toposheet No. F44L12 (64N12) and is bounded by the geographical coordinates ranging from Latitude: 22°03'40.563" N to 22°05'8.372" N and longitudes 83°34'52.176" E to 83°37'25.980" E.
- ii) PP reported that the Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed a moratorium on the grant of Environment Clearance.

12.3.2.2: Forest Area: PP submitted that the project involves a total of 186.335 ha of forest land. Forest Clearance application made vide application no FP/OR/MIN/QRY/471452/2024 dt. 03.05.2024 was rejected by the Forest Dept. for want of certain compliance. PP further submitted that there is no broken forest area. The extent of forest land in the project (including the safety zone and all types of forest land) is 186.335 Ha. Also, the PP stated that there is no violation of the FC Act.

12.3.2.3: Protected Area: PP reported that the project is not located within 10 Km of any ESZ/ ESA/ National Park, Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve/ Elephant Reserve/ Tiger Corridor/ Elephant Corridor, etc and no violation of WLP, Act is reported. However, PP submitted that Burhapaharh Reserve Forest is within the block area and 10 other Reserve Forests and 9 Protected Forests are within 10 Km distance from the block.

The PP further submitted that the Study of Wildlife and Forest Areas is underway. A Wildlife Management Plan will be prepared and details of the same will be incorporated in the EIA/EMP Report. PP submitted based on the outcome of the study of Wildlife and Forest Areas, a Wildlife Conservation Plan for Schedule-I species will be prepared and details of the same will be incorporated in EIA/EMP Report.

12.3.2.4: Mining Lease: PP submitted that the Burapahar coal block is located in the North-Western part of the Ib Valley coalfield in the district of Sundergarh, Odisha. The block with an area of 603 Ha. has been allocated by the Ministry of Coal, Government of India, vide Allocation order No: NA-104/8/2023-NA dated 08.06.2023 to M/s. Gujarat Mineral Development Corporation Limited.

S. No	Govt. Order/Notifications as the case may be	Area (ha)
1	The block allocated by Ministry of Coal, Government of India, Allocation order No: NA-104/8/2023-NA dated 08.06.2023	606
2	Certification of Geological coordinates by CMPDI as a part of Guidelines for the preparation of a Mining Plan for the coal blocks allotted by Moc, Govt. of India for Burapahar block, Ib Valley Coalfield vide letter no. CMPDI/DG/50 dated 16.01.2024	603
3	Letter from Ministry of Coal regarding change in Block Area of Burapahar Coal Block post boundary Certification of CMPDIL File no. NA-104/8/2023-NA dated 09.02.2024	603
Total-1		603
4	Details of LOI (for area outside lease area)	N/A
Grand Total		603

Date of Block allotment/ lease with its expiry date: Allotment Date is 08.06.2023 and Date of expiry of lease is 06.03.2077.

12.3.2.5: Mining Plan: PP submitted the Mining Plan & Mine Closure Plan for Burapahar Coal Mine of M/s. Gujarat Mineral Development Corporation Limited has been approved

by the Ministry of Coal, Government of India vide letter no. Burapahar Coal Mine ODSU/APP00263/2023 dated 28.03.2024 for capacity 6.0 MTPA and area 603 Ha.

12.3.2.6: Method of Mining: The PP has submitted the following:

- i) Method of Mining to be adopted shall be Opencast cum Underground. The Capacity of the mine applied for Normative capacity peak capacity as per the approved mining plan is: Rated capacity of the mine as per CBDPA is 6.0 MTPA and Proposed Peak Production is 9.0 MTPA. Excavation of Coal is through Shovel Dumper Combination/Surface Miner. Considering the geo-mining characteristics of the block and for the conservation of resources, it is proposed to extract the coal reserves within the block using a combination of open-cast mining and underground mining methods. The waste/OB handling is with shovel/dumper combination/dragline etc. It is proposed to mine Overburden (including partings) using the conventional method of Shovel – Dumper combination.
- ii) Total geological reserves reported in the mine lease area are 604.77 Million Tonnes with 378.58 Million Tonnes of mineable reserve. Out of the total mineable reserve 220.300 Million Tonnes are available for extraction. Percent of extraction is 40.475 %.
- iii) 17 seams with thickness ranging from 0.17 m to 17.7 m are workable. Grade of coals G7-G16 stripping ratio 1:5.06 (Tonnes: CuM) while gradient is 3°-7°.
- iv) Life of mine is 83 years (OC: 22 Years & UG: 63 Years).
- v) The project has 1 temporary external OB dump (within the lease area) in an area of 113 ha with 120 m height and 135.36 Mm³ of OB. 1 internal OB in an area of 410.59 ha with 575.06 Mm³ of OB is envisaged in the project.
- vi) The total quarry area is 496.39 ha out of which backfilling will be done in 410.59 ha while the final mine void will be created in an area of 85.80 ha with a depth of 30 m. The backfilled quarry area of 410.59 ha shall be reclaimed with plantation. The final mine void will be converted into a water reservoir.

vii) **Details of Land usage:**

i. Pre-mining Land Use

S. No.	Land Use	Within ML Area (Ha)	Outside ML Area (Ha)	Total (Ha)
1.	Agricultural Land	135.245	-	135.245

S. No.	Land Use	Within ML Area (Ha)	Outside ML Area (Ha)	Total (Ha)
2.	Forest Land	186.335	-	186.335
3.	Waste Land	N/A	-	-
4.	Grazing Land	9.7	-	9.7
5.	Surface Water Bodies	5.01	-	5.01
6.	Settlements	17.2	-	17.2
7.	Other (Barren Land, Roads/Other Infrastructure, Reserve, Other)	249.51	-	249.51

ii. Post-Mining

S. No.	Type	Total Area (Ha)	Reclaimed Area (Ha)	Un-claimed Area (Ha)
1.	Excavation/ Quarry Area:	496.39	-	-
	(a) Backfilled Areas	410.59	410.59	-
	(b) Excavated Void	85.80	85.80	-
2.	External Dump	-	-	-
3.	Safety Zone	8.44	8.44	-
4.	Road & Infrastructure	16.42	16.42	-
5.	Garland Drains	2.22	2.22	-
6.	Embankment	-	-	-

7.	Others (Settling pond, Rationalization Area, Greenbelt)	79.53	20.5	59.03
----	---	-------	------	-------

viii) Details of transportation of Coal: PP submitted that the coal is proposed to be transported within and the outside mining lease in the following manner:

- a. In pit: By Dumpers and Tippers
 - b. Surface to siding: By Dumpers and Tippers
 - c. Siding to loading: By Dumpers and Tippers. It is proposed to do coal transport by means of rail or road or conveyor based on the location of the captive power plant or consumer location.
 - d. There is no change in proposed change in transportation means if any, give details: No
- ix) PP reported that The coal block is fall in revenue villages viz. Bhogarakachhara, Bijahan, Bileimunda, Chakra, Jamkani, Jharapalanka, Mundelkhet & RF. Habitation of Jharapalam Village is falling within the block area and same will be Rehabilitated as per the existing laws after taking the prior approval from the Competent Authority. Total nos. of Project Affected Families are 840, Project Displaced Families are 495 and nos. of houses to be demolished are 233. These are the estimated nos. and the same was filled in Form I; however, the actual nos. will be finalized during the preparation of the Rehabilitation & Resettlement Action Plan. The rehabilitation package provided for the displaced persons would be in conformity with the Govt. of India norms and as per the guidelines of the Central & State Govt. Detailed R&R will be prepared.
- x) **Reclamation:** PP reported that the reclamation plan includes Afforestation which shall be done progressively covering an area of 438.95 Ha Ha at the end of the mining. This will include:
1. Reclaimed external OB dump (in ha): Nil
 2. Internal dump (in ha) – 410.59 ha
 3. Green belt (in ha) 18 Ha
 4. Density of tree plantation (in no of plants) – 10,97,375 nos of saplings @ of 2500 per Ha
 5. A void of 85.80 ha at a depth of 30 m which is proposed to be converted into a water body

12.3.2.7: Legal Issues/ Violation: PP reported that there is no legal issue/ violation w.r.t Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation

Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

12.3.2.8: Baseline Studies: PP reported that This proposal is for ToR and Baseline data has been collected during Post Monsoon Season (Oct., to Dec., 2023). Details will be incorporated in EIA/EMP Report

12.3.2.9: PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No. TC-6821 and valid from 24.05.2023 till 23.05.2025.

12.3.2.10: Water Requirement: PP reported that the total water requirement will be 650KLD (Surface Water 500 KLD; which will be sourced from groundwater, mine sump & harvested water. Prior permission before withdrawing & abstracting the ground water will be taken from the competent authority.

12.3.2.11: Solid and Hazardous Waste: PP submitted the following details of solid and hazardous waste generation along with its mode of treatment/disposal:

S. No	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal	Remarks
1.	Solid Waste (Domestic waste)	Mine Site	15	Organic Composter and Vermi-Compost Pits.	The same will be used as Manure in Greenbelt- By Road	---
2.	Plastic Waste (Packing material)	Equipment/components/spare parts packing	0.4	-	Through registered agencies - By Road	---
4.	E-waste IT equipment, electronic parts, cartridges of printer)	Laptops/Desktops/Servers/Printers/Electronics equipment.	0.16	-	Through registered vendors -By Road	---
5.	Batteries Waste	Caplamp-350, UPS-40	81	-	Returned to OEM/Supplier - By Road	---

		Machineries- 12, FSV-3				
6.	Hazardous Waste (Lubricants, gear oil, engine oil and hydraulic oil)	Mine Site	45	-	Sold to the authorized CPCB recyclers through Registered Agencies - By Road	---
7.	C & D Waste (Houses, Shelter of Village Habitants)	Mine Site	2640	-	Will be utilized in road leveling and construction work- By Road	---
8.	Over Burden	Mine Site	66860 000	-	Initial external dump & later on entire quantity will be backfilled- By Haul Road (Using Dumper)	---

12.3.2.12: R&R Plan: PP reported that the block is falling in revenue villages viz. Bhogarakachhara, Bijahan, Bileimunda, Chakra, Jamkani, Jharapalanka, Mundelkhet & RF. Habitation of Jharapalam Village is falling within the block area and the same will be Rehabilitated as per the existing laws after taking the prior approval from the Competent Authority. Total nos. of Project Affected Families are 840, Project Displaced Families are 495 and nos. of houses to be demolished are 233. These are the estimated nos. and the same was filled in Form I; however, the actual nos. will be finalized during the preparation of the Rehabilitation & Resettlement Action Plan. The rehabilitation package provided for the displaced persons would conform with the Govt. of India norms and as per the guidelines of the Central & State Govt. Detailed R&R will be prepared.

12.3.3: Observation and deliberation of the EAC:

The PP and the NABET Accredited Consultant made a detailed presentation and the Committee deliberated on the various aspects of the project including the method of

mining, dumping, transportation, forest area requirements etc. The observations made by the EAC are as follows:

1. The proposal of GMDC is for the grant of Terms of Reference (ToR) for the production of 6 MTPA from Burapahar Coal Block in ML Area 603 Ha, Tehsil Hemgir, District Sundargarh, State Odisha.
2. The Ministry of Coal vide Order No. NA-104/8/2023-NA, dated 08.06.2023 issued an order regarding the allocation of the mine lease.
3. The baseline study and data collection were done from October to November 2023 (post-monsoon) according to the Ministry's O.M. dated 08 June 2022.
4. The mining plan and the mine closure plan for a rated capacity of 6 MTPA and peak capacity of 9 MTPA, for the lease area of 603 Ha, were approved by the Ministry of Coal vide letter dated 28.03.2024.
5. The total forest area involved in the project is 186.335 Ha, for which application of diversion has been made vide proposal no. FP/OR/MIN/QRY/471452/2024, dated 03.05.2024 and the same was rejected for want of necessary compliance.
6. PP submitted that the project is not located within 10 KM of any National park, Wildlife sanctuaries, Biosphere reserves, Wildlife corridors, Tiger/ Elephant reserves etc. And no violation of the WLP, Act is reported. However, 11 Reserved forests and 9 Protected forests fall within the study area. The Committee asked the PP to submit the Wildlife Management Plan after obtaining the approval of the same from the concerned authority.
7. There is an open mixed jungle falling in the north-central part and north-eastern part of the mine block. Burapahar Reserve forest is located in the south-eastern part of the mine block.
8. The Committee observed that the project does not fall under Critically Polluted Area (CPA)/ Severely Polluted Area (SPA) as per CEPI Assessment 2018.
9. The PP submitted that the plantation will be carried out around the quarry area, office, service areas and dumps. The Committee asked the PP to submit the concurrent planting programme with native species.
10. The Committee observed that there is habitation of Jharapalam Village falling within the block area. The Committee also observed that 02 nos. of Govt. High Schools are located within the mine block. The PP submitted that the same shall be shifted after taking the prior approval from the concerned authority. The

Committee asked the PP to submit the Social Impact Assessment and Management Study/ Plan for the same.

11. The Committee observed that village roads are passing through the mine area connecting the villages. The Committee asked the PP to conduct the traffic study and submit the report of the same.
12. The Committee observed that a Nallah is flowing through the block area and some ponds are also falling through the block area. The PP submitted that the Nallah will be diverted after obtaining approval from the concerned authority. The Committee is of the view that PP shall prepare a nallha diversion plan and also submit a study regarding its impact on the environment. The Committee also asked for the aquatic flora and fauna study of Nallah proposed to be diverted along with the details of the irrigation in the downstream areas to be submitted. The Committee asked the PP to submit a plan for renovation of the ponds in the surrounding area.
13. The PP submitted that the electric lines passing through the block area will be diverted after obtaining permission from the concerned authority.
14. PP submitted that the water requirement for the project will be 650 KLD and the source of water will be ground water, mine sump, and harvested water. PP submitted that the permission for the abstraction of groundwater will be taken from CGWA after the grant of ToR. The Committee is of the view that PP shall comply with the Ministry's OM dated 23.05.2019.
15. The PP submitted that there is 4.1 MW of power required for the project and the same shall be taken from OPTCL substation situated approx. 30-35 km from the Mine area. Also, PP has proposed 2x3300 KVA, 33 KV/6.6 KV project substation and 2x3300 kVA, 33 KV/6.6 kV CHP substation of the coal project. The Committee is of the view that PP shall also explore the possibility of using renewable energy and accordingly a plan in this regard may be submitted. Further, PP shall align the project towards achieving SDGs.
16. The PP submitted that the total manpower required for the project is 750 (Permanent: 110 and Contractual: 640) and the preference will be given to locals as per their eligibility.
17. The project cost submitted by the PP is Rs. 953.85 Cr.
18. The details of the Reserves and Resources submitted by the PP are as follows:
 - Net Geological reserves – 544.290 Million Tonnes
 - Blocked Reserves – 165.716 Million Tonnes
 - Mineable Reserves – 378.580 Million Tonnes (OC: 113.69 Million Tonnes & UG 106.61 Million Tonnes)

- Overburden – 575.06 Million CuM
- Stripping Ratio – 1:5.06 (Tonnes: CuM)
- Life of Mine – OC: 22 Years and UG: 63 Years (OC: 1st to 22nd Year & UG: 21st to 83rd Year), Overall: 83 Years

19. PP submitted that the Mining method will be fully mechanized for both opencast and underground mining. The Committee is of the view that PP should have an integrated mining plan for both opencast and underground mining and if required necessary approval may be obtained before submitting the proposal for EC.

20. PP submitted that there is no litigation pending against the project and/ or land in which the project is proposed to be set up and has submitted an undertaking on this behalf.

21. The Committee is also of the view that as the production level is above 2 MTPA, PP shall submit a plan for the installation of Silo Loading System (SLS), transportation of coal through belt conveyor from pit to SLS and from SLS through rail. A feasibility study needs to be conducted and the study should also clearly bring out the timeline for the installation of this setup and tentative budget.

22. In addition to opencast mining a study of the impact of underground mining on the environment including underground mine air quality done by a reputed institute needs to be submitted. The action plan on recommendation of study with budgetary provision needs to be submitted.

*Based on the discussion held and the documents submitted the EAC **recommended** the proposal for the grant of Terms of Reference (TOR) to Burapahar Coal Mine (production capacity 6 MTPA; lease area 603 Ha) located at Villages: Bhogarakachhara, Bijahan, Bileimunda, Chakra, Jamkani, Jharapalanka, Mundelkhet & RF, Tehsil: Hemgir, District: Sundargarh, State: Odisha by Gujarat Mineral Development Corporation Limited (GMDC), under EIA Notification, 2006 (as amended) with the following specific ToR conditions in addition to generic ToR (system generated).*

Specific ToR:

- 1) *PP has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OM issued by MoEF&CC in this regard.*
- 2) *PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.*

- 3) *Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.*
- 4) *In addition to opencast mining a study of the impact of underground mining on the environment including underground mine air quality needs to be done by a reputed institute needs to be submitted. The action plan on recommendation of study with budgetary provision needs to be submitted.*
- 5) *PP shall prepare the mining plan in such a way that it should provide the details of diversion of canal/nallah/roads etc. involved in this project in the same. Further, no mining activities (except transportation) including OB dumping shall take place outside the lease area. Further, the total excavation (minerals, waste, top soil) to be excavated needs to bring out clearly in the production and development plan. The mineable reserves and blocked reserves need to be mentioned along with life of mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of the life of the mine. The location of mineral stacking, dumping sites, plantations and other infrastructures needs to be brought out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled. The mine plan should be an integrated mine plan for opencast and underground working.*
- 6) *As the project involves groundwater intersection a Hydrological study shall be carried out by some Government Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.*
- 7) *PP shall carry out a detailed study and prepare a diversion plan (canal/nallah/road etc.), if any, including the impact of such diversion on the environment and local community from a reputed government institute along with a cost-benefit analysis.*
- 8) *PP shall prepare a nallah diversion plan and also submit a study regarding its impact on the environment. PP shall conduct a study for the aquatic flora and fauna of Nallah, proposed to be diverted along with the details of the irrigation in the downstream areas to be submitted. In addition to this PP to submit a plan for the renovation of the ponds in the surrounding area.*
- 9) *PP shall submit the drone video & photographs of mined area, fresh lease area to*

be mined and existing and proposed transportation route. The height and speed of the drone shall be so maintained to give legible images/videos. Necessary titles should be included for better understanding.

- 10) PP should submit the detailed plan in tabular format (year-wise for life of mine) for concurrent afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 2 years only.*
- 11) PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.*
- 12) PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.*
- 13) PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues raised during Public Hearing. The capital and recurring expenditure to be incurred needs to be submitted.*
- 14) PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption*

needs to be submitted. PP shall also explore the possibility of using electric/e-vehicles/cleaner fuel (LNG/CNG) based mining machinery and trucks for mining operations and transportation of coal and submit a time bound action plan.

- 15) *All the certificates viz. Involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.*
- 16) *PP should clearly show the transport route of the mineral and protection and mitigative measures to be adopted while transporting of the mineral. The impact from the centre line of the road on either side should be brought out supported by the line source modelling and isopleth. Further, the frequency of testing of Poly polychromatic hydrocarbon needs to be submitted along with the budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources. The Ground level concentration of various pollutants in worst-case and control-case scenarios needs to be submitted. The cumulative impact of other activities needs to be considered in the EIA/EMP Report.*
- 17) *To support the transportation road, PP shall carry out the traffic study for at least one month along with the mitigation measures to control air pollution.*
- 18) *PP shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.*
- 19) *PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of the Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.*
- 20) *The PP should ensure that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.*
- 21) *The PP should submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring*

station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

- 22) As the production level is above 2 MTPA, PP shall submit a plan for the installation of Silo Loading System (SLS), the transportation of coal through the belt conveyor from pit to SLS and from SLS through rail. A feasibility study needs to be conducted and the study should also clearly bring out the timeline for the installation of this setup and tentative budget.*
- 23) As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public consultation including the public hearing, the Project Proponent is required to submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring). Activities proposed shall be part of EMP.*
- 24) A Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions.*
- 25) Details on renewable energy (solar plant) proposed to be installed as energy conservation measures shall be submitted.*
- 26) PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PPs shall update the same to the EAC.*
- 27) PP should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.*
- 28) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.*
- 29) A detailed Wild Life Conservation plan for Schedule 1 species shall be prepared for the conservation of the species. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW.*
- 30) PP shall submit the applications for obtaining NOC for the diversion of road/nallha/electric lines passing through the block area to the concerned authority.*
- 31) PP shall also submit an action plan pursuant to MoEFCC OM dated 29.10.2014.*
- 32) PP shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget.*

- 33) *Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report. Further, the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.*
- 34) *PP shall submit the measures to be taken for the stability of dumps already existing and proposed to be developed during the mining operation. In case the height of the any dump is more than 60 meters then PP shall get the study done from a reputed institute in this regard.*

Agenda No. 12.4

Proposal for grant of Terms of Reference (ToR) of Kasta East Coal Mine (Lease Area 1409.026 Ha; production 1.89MTPA/2.835MTPA [Targeted/Peak]) of Jitusol Developers Private Limited, located at Villages Arjjunshuli, Barra, Bhurachak, Binodpur, Gohalia, Kankartala, Kaithi, Khajuria, Mundira, Nabasan, Nalgara, Palpai, Parsundi, Rasa, Sahapur, Shira, Tehsil/Block Khoyrasol, Dist. Birbhum, State: West Bengal for conducting studies for Environmental Clearance (EC) of the allotted coal block. – Terms of Reference – Regarding.

[Proposal No. IA/WB/CMIN/466405/2024; File No J-11015/32/2024-IA-II; Consultant: Min Mec Consultancy Private Limited; NABET/EIA/2225/IA 0096 valid till 29.03.2025]

12.4.1: The present proposal is for the grant of Terms of Reference (ToR) Kasta East Coal Mine having a mine lease area 1409.026 Ha with production capacity 1.89MTPA/2.835MTPA [Targeted/Peak], located at Villages Arjjunshuli, Barra, Bhurachak, Binodpur, Gohalia, Kankartala, Kaithi, Khajuria, Mundira, Nabasan, Nalgara, Palpai, Parsundi, Rasa, Sahapur, Shira, Tehsil/Block Khoyrasol, Dist. Birbhum, State: West Bengal.

Jitusol Developers Private Limited has made an application online vide proposal no IA/WB/CMIN/466405/2024 dated 29.03.2024 along with the application in the prescribed format (Form-I) and pre-feasibility report for undertaking a detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 1(a) Under Category “A” (> 500 Ha) of the schedule of the EIA Notification, 2006 and appraised at the Central Level.

12.4.2: Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

12.4.2.1: Location:

- iii) The project area is covered under Survey of India Topo sheet No F45D1 (Equivalent to Topo sheet No.73M/01) and is bounded by the geographical coordinates ranging from Latitude N 23 45' 57" to 23 47' 52" and Longitude E 87 08' 43" to 87 13' 35".
- iv) PP reported that the project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed a moratorium on the grant of Environment Clearance. The project is located in district: Birbhum.

12.4.2.2: Forest Area: PP submitted that The project does not involve any forest land in the project area, a certificate of non-forest land is obtained from DFO, Bhirbhum Division vide letter no. 97/8M Dated 19.04.2023.

12.4.2.3: Protected Area: PP reported that The project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. In this regard, an NOC obtained from PCCF(WL) vide letter no. 1151/WL/2W-167/2016 Dated 28.04.2023 that the project does not fall within 10km from any Protected Areas, and does not fall under the corridors of any National Park and Wildlife Sanctuary. Regarding the presence of Schedule – I species and the conservation plan, PP submitted that the same will be prepared and submitted at the time of Environment Clearance.

12.4.2.4: Mining Lease: PP submitted the following regarding the Mining lease:

SI No	Govt. Order/ Notifications as the case may be	Area (ha)
1	37-CI/O/MIN/GEN-COL/03/2023 dated 18.01.2024	1409.026
Total		1409.026
2.	Details of LOI (for area outside lease area)	N.A.
Grand Total		1409.026

Date of Block allotment/ lease with its expiry date: 30 years from date of registration.

12.4.2.5: Mining Plan: PP submitted that the Mining Plan and Mine Closure Plan have been approved vide letter No.: MINEWBCWB003/APP00270/2023 dated 15/03/2024 for capacity 1.89 MTPA Normative Capacity & 2.835 MTPA Peak Capacity and area 1409.026 Ha.

12.4.2.6: Method of Mining: The PP has submitted the following:

- xi) Method of Mining to be adopted shall be Opencast cum Underground. The Capacity of the mine applied for Normative capacity & Peak capacity as per the approved mining plan is 1.89 MTPA & 2.835 MTPA respectively. Excavation of Coal is through Shovel 3.3 CuM capacity; Excavator in combination with 35T dumper, Surface Miner in combination with Front End Loader for Open Cast and Continuous miners with shuttle cars for underground.
- xii) Total geological reserve reported in the mine lease area is 117.14 MT with 90.50 MT mineable reserve. Out of the total mineable reserve of 90.50 MT, 44.499 MT are available for extraction. Percent of extraction is 49.17%.
- xiii) There are only two coal seams -Kasta (Top) with a thickness range of 0.31 m to 4.26 m Kasta (Bott) with thickness range of 0.09 m to 11.47 m which are workable. Grade of coal of Kasta Top is G7- G11 and Kasta Bottom is G5 - G12, stripping ratio 01:18 while the gradient is 16:1.
- xiv) Life of mine is 26 years (16 years' opencast followed by 17 years Underground with 7 years overlap from 10th to 16th Year)
- xv) The project has 3 nos. of external OB dumps (within ML but outside quarry) in an area of 159.73 ha with 90m height and 425.149 Mcum (excluding top soil) of OB in the project. One internal OB (i.e. backfill in the quarry) in an area of 293.91 ha with 360.38 Mcum of OB is envisaged in the project.
- xvi) The total quarry area is 403.40 ha out of which backfilling will be done in 293.91 ha while the final mine void will be created in an area of 109.49 ha with a depth of 210 m. The backfilled quarry area of 293.91 ha shall be reclaimed with plantation. The final mine void will be converted into a Water Body.
- xvii) **Details of Land usage:**

iii. Pre-mining Land Use

S. No.	Land Use	Within ML	Outside ML	Total
		Area ha	Area	ha
1	Agricultural Land	1027.258	00.00	1027.258
2	Forest Land	00.00	00.00	00.00
3	Wasteland	00.00	00.00	00.00
4	Grazing Land	00.00	00.00	00.00
5	Surface Water Bodies	93.919	00.00	93.919
6	Settlements	96.303	00.00	96.303
7	Barren	134.922	00.00	134.922
8	Road, Rail & infrastructure	56.624	00.00	56.624

S. No.	Land Use	Within ML Area ha	Outside ML Area	Total ha
9	Community/Township others	0	00.00	0
	Total Project Area	1409.026	00.00	1409.026

iv. Post-Mining

S. No.	Type	Total Area	Reclaimed Area	Un- reclaimed Area
1.	Excavation/Quarry Area:			
	(a) Backfilled areas	293.91	293.91	-
	(b) Excavated Void	109.49	-	109.49
2.	External Dump	159.73	159.73	-
3.	Safety Zone	12.790	-	12.790
4.	Road and Infrastructure	10.84	10.84	-
5.	Garland Drains	5.80	5.80	-
6.	Embankment	10.51	-	10.51
7.	Green Belt	41.13	-	41.13
8.	UG Entry	2.41	2.41	-
9.	Undisturbed Right for UG	731.076	-	731.076
10	Top soil dump	13	13	-
11	Haul road	6.490	6.490	-
12	Road diversion	6.5	-	6.5
13	Nala diversion	0.65	-	0.65
14	Settling pond	4.7	4.7	
	TOTAL	1409.026	496.880	912.146

xviii) Details of transportation of Coal: The coal is proposed to be transported within the outside mining lease in the following manner:

- a. In pit: Dumpers from quarry to pit head in OC. From UG working to surface by Conveyor Belt
- b. Surface to siding: Dumpers
- c. Siding to loading: It is a commercial block, buyers will be at varied locations and follow varied routes by road.
- d. Quantity being transported by Road/Rail/conveyer/ropeway: 1.89 (Targeted) and 2.835 (Peak) MTPA

xix) Details of villages/habitation in the mine lease area: There are 16 no. of villages within the mining lease area. No village shifting is proposed. PP submitted that out of the total lease area of 1409.026 Ha, 69 Ha has already been acquired and the remaining area will be acquired by 2025

xx) **Reclamation:** PP reported that the reclamation plan includes Afforestation which shall be done progressively covering an area of 200.86 Ha at the end of the mining. This will include:

1. Reclaimed external OB dump (in ha): 159.73
2. Internal dump (in ha) – 0
3. Green belt (in ha) 41.13 Ha
4. Density of tree plantation (in no of plants) – 2500 saplings/ha
5. Void 109.49 (in ha) at a depth of 210 (in m) which is proposed to be converted into the water body.
6. Others in ha.: Public use: 17.66, Undisturbed Area: 743.866 ha.
7. Agriculture and horticulture: 337.15 Ha

12.4.2.7: Legal Issues/ Violation: PP reported that there is no legal issue/ violation w.r.t Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

12.4.2.8: Baseline Studies: PP submitted that baseline data collected for the period 1st December 2022 to 28th February 2023

12.4.2.9: PP reported that the Laboratory involved in the analysis of water, air, noise & soil quality data, etc. has been accredited by the MoEF&CC bearing recognition vide Gazette No. SO 3744(E) at Sl. No. 97 valid till valid till 16.10.2024

12.4.2.10: Water Requirement: PP submitted that the source of water for Potable water will be Treated mine water/groundwater, for Industrial water it will be from a Mine sump/surface reservoir. The water requirement will be 2585.2 KLD (Opencast: 1608.7 KLD and Underground 976.5 KLD). There will be ground water intersection and a Permit for Ground Water Abstraction has been taken from the State Water Investigation Directorate, Birbhum vide their Permit No. P0304098000000032401TSE dated 31/08/2023 for withdrawal of 30 KLD of water and will be enhanced by 4th year.

12.4.2.11: Solid and Hazardous Waste: PP submitted that The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Sl No	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal	Remarks
-------	---------------	--------	----------------	-------------------	----------	---------

1.	Cotton/ Jute based containing oil	Maintenance workshop	2	Sent to CHWTSDF, Haldia, WB	Cotton/ Jute based containing oil will be sent to CHWTSDF, Haldia, WB	NA
2.	Used oil/ spent oil	HEMM, DG set and other machines & vehicles, etc	60	Will be sold to authorised recyclers	Will be sold to authorised recyclers	NA

12.4.2.12: R&R Plan: PP reported that R&R is not applicable since no displacement is proposed. However, land will be purchased directly from land losers for opencast mining area, sump, infrastructure, UG entry, road and other surface uses at mutually agreed rates. Preference in employment at the mine shall be given according to qualification and capability.

12.4.3: Observation and deliberation of the EAC:

The PP and the NABET Accredited Consultant made a detailed presentation and the Committee deliberated on the various aspects of the project. The observations made by the EAC are as follows:

1. The proposal of Jitusol Developers Pvt Ltd is for grant of Terms of Reference (ToR) for targeted production of 1.89 MTPA and peak production of 2.835 MTPA from Kasta East Coal Mine in ML Area 1409.026 Ha, located at Villages Arjjunshuli, Barra, Bhurachak, Binodpur, Gohalia, Kankartala, Kaithi, Khajuria, Mundira, Nabasan, Nalgara, Palpai, Parsundi, Rasa, Sahapur, Shira, Tehsil/Block Khoyrasol, Dist. Birbhum, State: West Bengal.
2. The Ministry of Coal vide vesting order no. NA-104/31/2022-NA, dated 12.12.2022, allotted Kasta East Coal Mine to Jitusol Developers Pvt. Ltd.
3. The baseline study and the data collection were done from 1.12.2022 to 28.02.2023 (during winters), according to the Ministry's O.M. dated 08. June 2022.
4. The Mining plan and the Mine Closure plan for the capacity of 1.89MTPA/ 2.835 MTPA (targeted/ peak), within the lease area of 1409.026 Ha, were approved by the Ministry of Coal vide letter dated 15.03.2024.

5. The PP submitted that the project does not involve any forest land in the project area and has obtained the certificate of non-forest land from the DFO, Bhirbhum Division vide letter no. 97/8M, dated 19.04.2023.
6. The Committee observed that the project does not fall under Critically Polluted Area (CPA)/ Severely Polluted Area (SPA) as per CEPI Assessment 2018. PP also submitted that Durgapur (CPA) is at a distance of 20 Km from the lease area.
7. The PP submitted that the project is not located within 10 KM of any National park and Wildlife Sanctuary. PP submitted that the NoC for the same has been obtained from PCCF(WL) vide letter no. 1151/WL/2W-167/2016, dated 28.04.2023. PP also submitted that the Ballavpur Wildlife Sanctuary is situated at a distance of 45 KM.
8. The PP submitted that there is habitation of 16 villages within the lease area out of which land shall be purchased/ acquired from 9 villages only, viz Arjjunshuli, Barra, Kaithili, Binodpur, Gohalia, Kankartala, Khajuria, Palpai and Rasaon. The PP submitted that the other 7 villages shall not be displaced, although those are also located in the coal-bearing area. PP further submitted that the land losers will be compensated at mutually agreed rates through direct purchase/long-term lease. The Committee observed that there are dumps proposed closed to habitation which may have an impact on the village. Accordingly, PP shall explore the possibility of avoiding the same as these villages are not going to be shifted and working at dumps may have an impact on the village and its habitation. Therefore, a study in this regard needs to be done by a reputed institute which may give its specific recommendation on the location of the dump at this location or suggest any other location. Further, the study should be done for dump design and stability so that it would not have any impact on habitation. Further, the PP shall obtain the necessary permission from the concerned village authorities for the same. PP shall also submit an action plan pursuant to MoEFCC OM dated 29.10.2014. The Committee asked the PP to submit the Social Impact Assessment and Management Study/ Plan for the same.
9. The Committee observed that there is a presence of schools and health centres in the villages located in the lease area. The Committee asked the PP to submit the plan for the safety/ shifting of nearby schools/ hospitals.
10. The PP submitted that Lakhanpur PF is present at a distance of 1.3 Km in the North direction of the lease area. PP further submitted that there are 26 more environmentally sensitive areas within 10 Km of the project boundary. The Committee is of the view that PP shall provide the impact of mining on the nearest forest area and mitigative measures to be taken.

11. The Committee observed that there are a total 5 nos. of nallahs passing through the lease area, out of which the PP reported that 3 nos. of Nallahs which are passing through the western part of the OC pit will be diverted by the end of 6th year. The Committee is of the view that PP shall prepare a nallha diversion plan and also submit a study regarding its impact on the environment. The Committee also asked for the aquatic flora and fauna study of Nallah proposed to be diverted along with the details of the irrigation in the downstream areas to be submitted. The Committee asked the PP to submit a plan for renovation of the ponds in the surrounding area.
12. The Committee observed that there is a road passing through the lease area. The PP submitted that a road diversion of 6.5 Km (1.12 Km outside and 5.38 Km inside) is proposed. PP further submitted that traffic diversion for 1.2 Km on Hazratpur – Palai road, within the lease area is also proposed. The Committee is of the view that PP shall submit a diversion plan for the same and obtain necessary permission from the concerned authority. PP to conduct a traffic study report of the same shall be submitted.
13. The Committee observed that there is a railway line passing through the block. PP submitted that there is no diversion proposed for the railway line. The Committee is of the view that PP shall carry out necessary modifications in the mining plan for the same.
14. The PP also submitted that 4 nos. of power lines which are passing through the ML area will be removed. The Committee is of the view that PP shall obtain permission from the concerned authority for the diversion of the same.
15. PP submitted that the water requirement for the project during the construction phase is 15 KLD, which will be acquired through a private water tanker supply. The water requirement for the project during the operational phase is 1608.7 KLD and 976.5 KLD for opencast working and underground working respectively. Water during the operational stage will be acquired through the mine sump, surface reservoir and tube well as well and the necessary permission will be obtained from SWID, West Bengal before operations. The Committee is of the view that PP shall comply with the Ministry's OM dated 23.05.2019. Further, PP shall ensure that private water tankers and other providers should have the necessary permissions for withdrawal of the same.
16. The PP submitted that the total electricity requirement is 9 MVA, which will be acquired from Khoyrasol sub-station of WBSEBCL and for backup a DG set of 500 KVA for ventilation, pumping and other essential services will be installed. The Committee is of the view that PP shall also explore the possibility of using renewable energy and accordingly a plan in this regard may be submitted. Further, PP shall align the project towards achieving SDGs.

17. PP submitted that the total manpower requirement for the said project will be 1597 (opencast: 625 Nos. & underground: 972 Nos.). The PP submitted that preference for employment will be given to the land losers according to their qualification and capabilities. The Committee is of the view that PP shall submit a plan for skill development of the PAF and nearby community so that they are capable enough to get employment/self-employed.
18. The project cost (expected) submitted by the PP is Rs. 350.14 Cr.
19. Details of reserves and resources submitted by the PP are as follows:
- Net Geological reserves – 105.41 MTPA
 - Mineable reserves – 90.01 (UG: 65.850 + OC: 24.190) MTPA
 - Extractable reserves – 44.501 (UG: 21.521 + OC: 22.98) MTPA
 - Overburden – 428.53 MCum
 - Life of Mine – 26 Years (OC: 16 years & UG: 17 years), with 7 years overlapping from 10th year
20. PP submitted that the method of mining will be mechanized for both opencast and underground mining. Shovel, Excavator in combination with dumper, a surface miner in combination with a front-end loader for opencast and continuous miners with shuttle cars for underground mining will be used. The Committee is of the view that PP shall prepare an integrated mine plan including opencast and Underground mining. PP shall also explore the possibility of using electric/e-vehicles/cleaner fuel (LNG/CNG) based mining machinery and trucks for mining operations and transportation of coal.
21. The PP submitted that there is no litigation pending against the project and/ or land in which the project is proposed to be set up and has submitted an undertaking in this behalf.

*Based on the discussion held and the documents submitted the EAC **recommended** the proposal for the grant of Terms of Reference (TOR) to Kasta East Coal Mine (with a production capacity of 1.89MTPA/ 2.835MTPA [Targeted/ Peak], the mine lease area of 1409.026 Ha), located at Villages Arjunshuli, Barra, Bhurachak, Binodpur, Gohalia, Kankartala, Kaithi, Khajuria, Mundira, Nabasan, Nalgara, Palpai, Parsundi, Rasa, Sahapur, Shira, Tehsil/Block Khoyrasol, Dist. Birbhum, State: West Bengal by Jitusol Developers Private Limited, under EIA Notification, 2006 (as amended) with the following specific ToR conditions in addition to generic ToR.*

Specific ToR:

- 1) *PP has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned districts as per the provisions/procedure*

contained in the EIA Notification, 2006 (as amended) and OM issued by MoEF&CC in this regard.

- 2) *PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.*
- 3) *Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.*
- 4) *In addition to opencast mining a study of the impact of underground mining on the environment including underground mine air quality needs to be done by a reputed institute needs to be submitted. The action plan on recommendation of study with budgetary provision needs to be submitted.*
- 5) *PP shall prepare the mining plan in such a way that it should provide the details of diversion of canal/nallah/roads/railways etc. involved in this project in the same. Further, no mining activities (except transportation) including OB dumping shall take place outside the lease area. Further, the total excavation (minerals, waste, top soil) to be excavated needs to bring out clearly in the production and development plan. The mineable reserves and blocked reserves need to be mentioned along with life of mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of the life of the mine. The location of mineral stacking, dumping sites, plantations and other infrastructures needs to be brought out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled. The mine plan should be an integrated mine plan for opencast and underground working.*
- 6) *As the project involves groundwater intersection a Hydrological study shall be carried out by some Government Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.*
- 7) *PP shall carry out a detailed study and prepare a diversion plan (canal/nallah/road/transmission line etc.), if any, including the impact of such diversion on the environment and local community from a reputed government institute along with a cost-benefit analysis.*
- 8) *PP shall prepare a nallah diversion plan and also submit a study regarding its impact*

on the environment. PP shall conduct a study for the aquatic flora and fauna of Nallah, proposed to be diverted along with the details of the irrigation in the downstream areas to be submitted. In addition to this PP to submit a plan for the renovation of the ponds in the surrounding area.

- 9) PP shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route. The height and speed of the drone shall be so maintained to give legible images/videos. Necessary titles should be included for better understanding.
- 10) PP should submit the detailed plan in tabular format (year-wise for life of mine) for concurrent afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 2 years only.
- 11) PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- 12) PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- 13) PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues

raised during Public Hearing. The capital and recurring expenditure to be incurred needs to be submitted.

- 14) PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using electric/e-vehicles/cleaner fuel (LNG/CNG) based mining machinery and trucks for mining operations and transportation of coal and submit a time bound plan for shifting to e vehicles.
- 15) All the certificates viz. Involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- 16) PP should clearly show the transport route of the mineral and protection and mitigative measures to be adopted while transporting of the mineral. The impact from the centre line of the road on either side should be brought out supported by the line source modelling and isopleth. Further, the frequency of testing of Poly polychromatic hydrocarbon needs to be submitted along with the budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources. The Ground level concentration of various pollutants in worst-case and control-case scenarios needs to be submitted. The cumulative impact of other activities needs to be considered in the EIA/EMP Report.
- 17) To support the transportation road, PP shall carry out the traffic study for at least one month along with the mitigation measures to control air pollution.
- 18) PP shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
- 19) PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of the Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.
- 20) The PP should ensure that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP

report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.

- 21) *The PP should submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.*
- 22) *As the peak production level is above 2 MTPA, PP shall submit a plan for the installation of Silo Loading System (SLS), the transportation of coal through the belt conveyor from pit to SLS and from SLS through rail. A feasibility study needs to be conducted and the study should also clearly bring out the timeline for the installation of this setup and tentative budget.*
- 23) *As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public consultation including the public hearing, the Project Proponent is required to submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring). Activities proposed shall be part of EMP.*
- 24) *A Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions.*
- 25) *Details on renewable energy (solar plant) proposed to be installed as energy conservation measures shall be submitted.*
- 26) *PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PPs shall update the same to the EAC.*
- 27) *PP should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.*
- 28) *The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.*
- 29) *A detailed Wild Life Conservation plan for Schedule 1 species shall be prepared for the conservation of the species. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW.*

- 30) *PP shall submit the applications for obtaining NOC for the diversion of road/nallha/electric lines passing through the block area to the concerned authority.*
- 31) *PP shall ensure that the mine plan should be in line with the submission of PP that there would be no diversion of the railway line. PP shall obtain the necessary permission for working near the railway line as the case may be from the concerned authority. PP shall also keep the safety distance as per applicable rules and as suggested by railways.*
- 32) *PP shall explore the possibility of avoiding the dumping near villages which are not going to be shifted but if it is unavoidable PP shall conduct a study in this regard by a reputed institute which may give its specific recommendation on the location of the dump at this location or suggest any other location. Further, the study should be done for dump design and stability so that it would not have any impact on habitation. Further, the PP shall obtain the necessary permission from the concerned village authorities for the same. PP shall also submit an action plan pursuant to MoEFCC OM dated 29.10.2014.*
- 33) *PP shall submit the plan for the safety/ shifting of nearby schools/ hospitals.*
- 34) *PP shall provide the impact of mining on the nearest forest area and mitigative measures to be taken.*
- 35) *PP shall submit a diversion plan for the road and obtain necessary permission from the concerned authority. PP to conduct a traffic study report of the same shall be submitted.*
- 36) *PP shall submit a plan for skill development of the PAF and nearby community so that they are capable enough to get employment/self-employed.*
- 37) *PP shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget.*
- 38) *Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report. Further, the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.*
- 39) *PP shall submit the measures to be taken for the stability of dumps already existing and proposed to be developed during the mining operation. In case the height of the*

any dump is more than 60 meters then PP shall get the study done from a reputed institute in this regard.

Agenda No 12.5

Proposal of Wet Type Coal Washery Project is for expansion in production capacity from 0.90 MTPA to 2.5 MTPA over an area of 10.28 Ha, located at Village-Baloda, Tehsil-Baloda, District-, Janjgir Champa, State- Chhattisgarh by M/s Radiant Coal Benefication Private Limited. - Environmental Clearance Regarding

[Proposal No. IA/CG/CMIN/463422/2024; File No. J-11015/513/2007-IA-II(M); Consultant: GRC India Pvt. Ltd; NABET/EIA/21-24/SA0211 valid up to 15/08/2024]

12.5.1: M/s. Radiant Coal Benefication Pvt. Ltd. has made an online application vide proposal no IA/CG/CMIN/463422/2024 dated 20.02.2024 along with the application in the prescribed format (Form-I), copy of EIA report and approved ToRs as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S.No. 2(a) Coal Washery Under Category "A" of the schedule of the EIA Notification, 2006 and does not attract general condition, being appraised at the Central Level as the capacity of the project is 2.5 MTPA.

The project of M/s Radiant Coal Benefication Pvt. Ltd. located at Village-Baloda, Tehsil-Baloda, District- Janjgir Champa, Chhattisgarh is for the Expansion of Wet Type Coal Washery Project Based on Heavy Media Cyclone from 0.90 MTPA to 2.5 MTPA. The application was submitted for TOR vide proposal no. IA/CG/CMIN/424036/2023 dated 30th March 2023 and subsequently standard ToR has been granted by the Ministry of Environment, Forests and Climate Change (MoEF&CC) vide File No. J-11015/513/2007-IA-II(M) dated 05.04.2023. The ToR is valid till 4.04.2027.

12.5.2: Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

12.5.2.1: Location: The site and study area fall in the survey of India, Topo Sheet No– F44K8. Lilagar River flows about 4.7 km in the West direction

i) Latitude and Longitude of the project:

S.N.	Latitude	Longitude
1	22° 9'31.61"N	82°29'14.09"E
2	22° 9'27.80"N	82°29'28.01"E
3	22° 9'24.24"N	82°29'27.17"E
4	22° 9'25.16"N	82°29'24.42"E
5	22° 9'23.75"N	82°29'23.75"E
6	22° 9'22.72"N	82°29'26.85"E
7	22° 9'21.42"N	82°29'26.86"E

8	22° 9'22.33"N	82°29'23.42"E
9	22° 9'21.38"N	82°29'21.94"E
10	22° 9'21.09"N	82°29'22.07"E
11	22° 9'21.06"N	82°29'19.87"E
12	22° 9'21.14"N	82°29'18.28"E
13	22° 9'22.19"N	82°29'14.67"E
14	22° 9'21.24"N	82°29'13.70"E
15	22° 9'22.58"N	82°29'11.63"E
16	22° 9'24.51"N	82°29'13.83"E
17	22° 9'26.94"N	82°29'14.39"E
18	22° 9'27.71"N	82°29'12.16"E
19	22° 9'28.35"N	82°29'12.55"E
20	22° 9'28.11"N	82°29'13.04"E

- ii) The project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed a moratorium on the grant of environmental clearance.

12.5.2.2: Forest Area: PP Submitted that the Project does not involve Forest Area.

12.5.2.3: Protected Area: PP reported that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. PP submitted that there are 2 Schedule 1 species i.e. Indian Peafowl and Indian Monitor found in the 10 km area. The conservation plan has been prepared and submitted to PCCF for approval on 25/02/2023. PP has earmarked a budget of Rs 5.5 Lakh for the same. PP submitted that there is no violation of the WLP, Act, of 1980.

12.5.2.4: Prior Approvals: PP reported that Environmental Clearance had been obtained for the existing plant from SEIAA, Chhattisgarh, vide letter No. 277/SEIAA-CG/EC/Coal Washery/BSP/58/09 dated 20.10.2009 to M/s Clean Coal Enterprises Private Limited. EC was transferred to M/s Radiant Coal Beneficiation Pvt. Ltd on 19/01/2024.

12.5.2.5: Type of Project – PP Submitted the following details w.r.t washery:

- i) Expansion of Wet Type Coal Washery Project Based on Heavy Media Cyclone from 0.90 MTPA to 2.5 MTPA by M/s Radiant Coal Beneficiation Pvt. Ltd. located at Village-Baloda, Tehsil- Baloda, District- Janjgir Champa, Chhattisgarh.
- ii) The project site is located at a distance of about 2.25 km towards the south from NH-130A, and Baloda Road is at 2.5 km towards the SSE direction.

iii) The nearest village is Thadgabahra, which is located about 0.9 km West direction. The nearest railway station is Kapan which is located at about 13.5 km in the South direction.

iv) Capacity of Coal washery: 2.5 MTPA

v) Type of Coal Washery: Wet Process (Heavy Media Cyclones)

vi) Method of Disposal of Washery reject: Not Applicable as it's a coal washery project.

vii) Mode of transport of raw coal, rejected and washed coal:

- a) The ROM coal from the Gevra Mines, located within approx. 33 km from Washery, Kusmunda Mines, located within 40 km from Washery and Dipika Mines located 33 km away from Washery will be transported maximum by road.
- b) Washed Coal will be transported by Road from Washery to 18 km Akaltara CCEPL Railway siding then to End User by Indian Railway network.
- c) Washery rejects from the plant will be transported by road in covered trucks directly to the nearby power plants by road (For short distance delivery).
- d) Reject Coal will be transported by Road from Washery to 18 km Akaltara CCEPL Railway siding then to End User by Indian Railway network. (For long distance delivery).
- e) **Details of Land usage:** PP submitted that the Existing Plant area is 4.55 ha, the area required for expansion is 5.73 ha and the total Plant area will be 10.28 ha

Sl. No.	Details	Area in Ha	% w.r.t. Total Area
1.	Washery Area	2.5	24
2.	Raw Coal Stockyard	1.45	14
3.	Clean Coal Stockyard	1.5	15
4.	Reject Storage Area	0.5	5
5.	RWH Area	0.4	4

6.	Other Facilities-Office Building, internal roads, weight bridge, water reservoir, canteen, Labourers, Parking area	0.53	5
7.	Greenbelt	3.4	33
Total		10.28	100

12.5.2.6: Legal Issues/ Violation: PP reported that there is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

12.5.2.7: Water Requirement: PP submitted that the one-time water requirement for the project is 9800 KLD out of which 300 KLD will be the losses. Further, 50 KLD of water is required (10 KLD-Dust suppression; 15 KLD for sprinkling; Plantation-15 KLD and Domestic Use-10 KLD). PP submitted that the make-up water requirement is 350 KLD. PP submitted that water will be sourced from the groundwater and NOC has been obtained vide NOC no. CGWA/NOC/IND/REN/3/2021/6148 valid up to 05.07.2024, for 95 KLD.

12.5.2.8: Certified Compliance Report: PP submitted that vide letter dated 4/01/2023 a request was made to the concerned RO of MoEF&CC for the compliance report. Further, under the Ministry's OM dated 8.06.2022 a site inspection was done by SPCB on 10/10/2023 for compliance of EC conditions.

12.5.2.9: Baseline Data: Environmental Baseline data has been collected during 1st Dec 2022 to 28th Feb, 2023 (Winter Season).

Period	Winter season 1 st Dec 2022 to 28 th Feb, 2023
AAQ parameters at 8 Locations (min and max)	During the study, PM10 was observed in the range of 62.5–95.2 µg/m ³ , which is well within the prescribed standard limit (PM10 = 100 µg/m ³). PM2.5 was observed in the range of 30.1-49.1 µg/m ³ , which is well within the standard limit (PM2.5 = 60 µg/m ³). SO2 concentration was observed in the range of 5.1-11.2 µg/m ³ , which is well within the standard limit (SO2 = 80µg/m ³). NO2 concentration was observed in the range of 9.1-30.6 µg/m ³ , which is well within the standard limit (NO2 = 80µg/m ³). CO

	concentration was observed in the range of 670-1220 µg/m ³ , which is well within the standard limit (CO= 4000 µg/m ³).
Incremental GLC Level	PM10 is 1.17 µg/m ³ & PM 2.5 0.47µg/m ³ (About 500 m SSW direction)
Groundwater quality at 8 Locations	pH was observed in the range of 7.16–7.30 which meets with desirable norms. Total dissolved solids were recorded in the range of 720 to 750 mg/L. Total hardness was in the range of 360-378 mg/L. Total Alkalinity was found in the range of 283-296 mg/L. Iron was found in the range of 0.21-0.36 mg/L. As microbiological parameters MPN analysis was also carried out and it was found Nil.
Surface water quality at 8 Locations	pH of the samples was found in the range of 7.23-7.78. TDS analysis was also carried out for surface water samples and it was found in the range of 230-490mg/L. DO measured during analysis was found in the range of 5.3– 6.3mg/L. COD measured during analysis was found in the range of 8.8-18.3 mg/L. BOD measured during analysis was found in the range of 2.4-4.4mg/L. MPN test was also carried out for this surface water sample and it was found positive. It indicates towards the fecal contamination in the surface water body.
Noise levels Leq (Day and Night) 6 locations	The noise levels in the area varies from 43.7to 74.3 dBA during day time and 31.9 to 68.8 dBA during the night day.

12.5.2.10: EMP Cost: The budget earmarked for EMP is Rs 276 Lakhs (Capital) and Rs 105.6 Lakhs(Recurring).

S.No.	Activity	Capital Cost (Lakhs)	Recurring Cost (Lakhs/Annum)
1	Air Pollution Control Measures	120	20
	➤ DES and Bag House in crusher house	55	4
	➤ Fixed Water sprinklers	15	3

	➤ Mobile water sprinklers	10	3
	➤ Enclosures to belt conveyors	10	3
	➤ Asphalted internal roads	15	3.5
	➤ Rain gun	15	5.5
2	Water pollution control measures	115	28.5
	➤ Closed water Circuit , Thickener	80	15
	➤ Storm water drains	10	2
	➤ Sewage Treatment Plant	20	10
	➤ Piezometer to monitor ground water level	5	1.5
3	Green belt development	6	2
4	Occupational Health & Safety	15	5
	➤ Provision of PPE	5	2
	➤ Medical examination	10	3
5	Environment Management Cell	10	2
6	Environmental Monitoring	0	15
7	Risk Mitigation Measures	10	2.5
8	CER Budget	0	18.6
	EMP during construction stage	0	12
Total		276	105.6

12.5.2.11: Public Hearing details: PP submitted that a Public hearing notice was published on 25.06.2023 in a prominent newspaper namely *The Daily Pioneer* and *Hari*

Bhoomi. The public hearing was conducted on 26/07/2023 under the Chairmanship of Mr. S.P. Waid, Additional Collector, District-Janjgir Champ. The major issue raised during PH is Employment for the locals, Air Pollution Control Measures, Water requirements for irrigation, Road Safety Measures, and concern about the health of local people. PP has earmarked an amount of Rs 37 Lakhs for addressing the issues raised during PH.

Action plan for addressing the issues raised during Public Hearing

S. No.	Issue raised during PH	Physical activity and action plan	Budget	2024-26	2026-28	2028-30	2030-32	2032-34
	Employment for the locals	Willing and employable youths will be identified in consultation with gram panchayat of Tadgabahra , Bhilairi and Jharradih. They will be provided training for trades namely electrician, fitters, welders, painters, and civil construction work, year) etc. After successful completion of training, the youths will be offered employment in	8 Lakhs Stipend -4.0 Lakh (Rs. 10000/- stipend per year to 40 persons for 1 year) Fee 4.0 Lakhs (Rs. 10000/- yearly fee for 40 persons for 1	1.6 Lakhs	1.6 Lakhs	1.6 Lakhs	1.6 Lakhs	1.6 Lakhs

		company in suitable grade.						
Air Pollution Control Measures	Tree plantation (1000 trees) will be done in nearby villages Tadgabahra, Bhilairi Jharradih. Water sprinkling on road for dust dispersion control in nearby villages in consultation with the	8 Lakhs 4 Lakhs (500 per tree for 600 trees) 4 Lakhs (Installation of water sprinklers)	akhs 2 Lakhs (For 400 trees in village Tadgabahra and Bhilari) 2 Lakhs	4 Lakhs 2 Lakhs (For 200 trees in village Jharradih) 2 Lakhs				

		authority.						
	Water requirement for irrigation	Construction of RWH structure in village Baloda.	7 Lakhs	7 Lakhs				
	Road Safety Measures	Traffic awareness programme will be conducted in villages Tadgabahra, Bhilairi, and Jharradih. Helmets and first aid kits will be distributed to the villagers.	8 Lakhs 4 Lakhs 4 lakhs (Distribution of helmets and first aid kits to 250 people)	1.6 Lakhs 0.8 Lakhs 0.8 Lakhs (Distribution of helmets and first aid kits to 50 people)	1.6 Lakhs 0.8 Lakhs 0.8 Lakhs (Distribution of helmets and first aid kits to 50 people)	1.6 Lakhs 0.8 Lakhs 0.8 Lakhs (Distribution of helmets and first aid kits to 50 people)	1.6 Lakhs 0.8 Lakhs 0.8 Lakhs (Distribution of helmets and first aid kits to 50 people)	1.6 Lakhs 0.8 Lakhs 0.8 Lakhs (Distribution of helmets and first aid kits to 50 people)
	Concern about health of local people	Health checkup and distribution of medicines in Villages Tadgabahra, Bhilairi, and Jharradih.	6 Lakhs Conducting Health checkup (2000 persons) :- 3	1.2 Lakhs Health Checkup and distribution of medicines in	1.2 Lakhs Health Checkup and distribution of medicines in	1.2 Lakhs Health Checkup and distribution of medicines in	1.2 Lakhs Health Checkup and distribution of medicines in	1.2 Lakhs Health Checkup and distribution of medicines in

			Lakhs	villages Tadgab ahra and Bhilair (400 persons): Rs. 0.6 Lakhs	villages Tadgab ahra and Bhilair (400 persons): Rs. 0.6 Lakhs	villages Tadgab ahra and Bhilair (400 persons): Rs. 0.6 Lakhs	villages Tadgab ahra and Bhilair (400 persons): Rs. 0.6 Lakhs	villages Tadgab ahra and Bhilair (400 persons): Rs. 0.6 Lakhs
			Distribut ion of Medicin es and other health facilities such as Ambula nce (200 families) :- Rs. 0.6 Lakhs	Distribut ion of Medicin es and other health facilities such as Ambula nce (200 families) :- Rs. 0.6 Lakhs	Distribut ion of Medicin es and other health facilities such as Ambula nce (200 families) :- Rs. 0.6 Lakhs	Distribut ion of Medicin es and other health facilities such as Ambula nce (200 families) :- Rs. 0.6 Lakhs	Distribut ion of Medicin es and other health facilities such as Ambula nce (200 families) :- Rs. 0.6 Lakhs	
Total			37 Lakhs	15.4 Lakhs	8.4 Lakhs	4.4 Lakhs	4.4 Lakhs	4.4 Lakhs

12.5.2.12: Project Cost: The total project cost after the proposed expansion facilities will be 18.32 Cr. (Existing Rs. 12.38 Cr + Expansion Rs. 5.94 Cr). About 40 people on a daily wage basis will get employment during the construction stage. A total of 130 persons (existing + expansion) will be employed during the operational phase, in the skilled, semi-skilled and unskilled category. The preference will be given to the local population for employment in the semi-skilled and unskilled category.

12.5.2.13: Affidavit & Undertaking: PP also submitted an affidavit on 23/02/2024 to the effect that no construction was done without deviation of EC dated 20/10/2009, there is no litigation pending, the land is in the possession of the company, there is no deviation in data submitted.

12.5.3: Deliberations by the Committee:

The Proposal of Wet Type Coal Washery Project is for expansion in production capacity from 0.90 MTPA to 2.5 MTPA over an area of 10.28 Ha, located at Village-Baloda, Tehsil-Baloda, District-, Janjgir Champa, Chhattisgarh by M/s Radiant Coal Benefication Private Limited. The proposal was earlier considered in 8th EAC, held on 29th February 2024 wherein the Committee deferred the proposal for want of additional information. PP submitted the reply on Parivesh Portal on 22.05.2024 and the proposal is now placed in 12th EAC meeting held on 5-6 June 2024. The reply submitted by PP is as follows:

S. No.	Observations	Reply
1.	As observed in other project by the same PP, the Committee viewed the KML file and photographs of the plant site of this project also and is of the view as to why coal dust is visible outside the project area. The PP informed that it is the adjacent Coal Washery due which coal dust is seen outside the project area. As desired by the Committee PP also showed the green belt on KML file. The Committee is of the view that PP shall install a rain gun and wash the trees regularly in this project also as advised in the other project. Further, the Committee is of the view that PP shall also carry out regular water spraying in and around the project site and increase the green belt area. A plan to this effect should be submitted.	We will provide dust suppression systems on the open coal yards and internal roads by using the treated water from proposed STP during expansion. We will explore the possibilities to use treated sewage water /treated effluent from the nearby industries also. Dust suppression is being done and same will be followed after expansion on coal yards, on internal roads and transportation route which connects the project site and NH-130A on regular basis. Measures such as regular watering, pruning, and cleaning of leaves will be done using mobile tankers with high-pressure pumps. PP submitted an Affidavit in this regard.
2.	The Committee also deliberated on the transportation route and is of the view that PP shall submit the cumulative GLC and traffic study of both of these projects of PP.	Cumulative Impact Assessment (CIA) has been done considering the emission from both coal washery projects including traffic emission. Air quality modeling has been performed using model AERMOD and cumulative incremental GLC value for PM10, PM2.5, SO2, NO2 & CO are

		<p>respectively is 2.85 µg/m³, 1.92 µg/m³, 0.46 µg/m³, 8.53 µg/m³, & 0.19 µg/m³.</p> <p>PP also submitted the detailed study report including isopleths.</p> <p>Traffic study with volume count was carried out for 24 hours on working day at Hazari Bazar Road and NH-130A. It is envisaged that there will be overall increase in existing traffic load. The additional no. of trips per day after proposed project will be 52 PCU/hr. hence, the additional load on the carrying Capacity of the concern roads is not likely to have a drastic change in the LOS value. Therefore, LOS value will be remain same after considering additional traffic due to project. The LOS for NH-130A & Hardi Bazar Road during operation phase will remain same i.e., "Good".</p> <p>Detailed Traffic study report was slo submitted.</p>
3.	<p>The Committee observed that PP has approached the concerned RO of MoEF&CC for CCR but the inspection could not be done within the stipulated timeline. Therefore, PP has approached the concerned SPCB for the same, according to the Ministry's O.M 8.06.2022. The site was inspected by the Regional Officer, SPCB on 10/10/2023, as per the inspection report, PP has installed the bag filter, provided water spraying arrangement, transportation is by covered trucks, etc. There are no adverse comments about the compliance of EC Conditions.</p>	<p>We would like to inform you that Environmental Clearance had been obtained for the existing plant from SEIAA, Chhattisgarh, vide S.No. 277/SEIAA-CG/EC/Coal Washery/Janj Champa/BSP/58/09 dated 20.10.2009 and PP submitted the copy of the same.</p> <p>PP also submitted Self-compliance report. STP will be provided after expansion in place of septic tanks.</p> <p>Geo tagged photographs of Air & Water Control Pollution Devices were also submitted.</p>

	<p>However, it has been mentioned that for the treatment of domestic waste septic tank is used. The Committee is of the view that PP shall install a STP for the same. As the inspection report was recorded in Hindi, Committee asked PP to submit a self-compliance report in English. The Committee also asked for geo tagged photographs of Air & Water Control Pollution Devices.</p>	
4.	<p>The Committee is of the view that PP shall monitor the heavy metal in the water samples and install the piezometers for regular monitoring of groundwater level.</p>	<p>We are in process of installation of piezometers for regular monitoring of groundwater level at one point upstream and at one point downstream of ground water flow. We are in process of finalizing vendor and same will be done before EAC meeting.</p> <p>Ground water has been tested at eight locations for heavy metals (Cu, Mn, B, Zn, As, Cd etc) during the study period by accredited laboratory. All parameters are well within the limit as prescribed by the norms. PP submitted the Water testing reports.</p>
5.	<p>The Committee observed that as per DSS there is a forest area visible inside the project boundary in north side. The Committee is of the view that a clarification in this regard may be submitted along with distance of the project site from forest.</p>	<p>The existing plant is over 4.55 ha and for the expansion project 5.73 ha is required. Thus, the total land required is 10.28 ha which is under the possession of the company. There is no forest land involved within the project site. NOC from Divisional Forest officer is submitted for prerisal.</p>
6.	<p>As per the discussion held during the meeting regarding SDGs, PP was asked to submit a concept note on the SDGR. Further, the Committee reiterated that to achieve the SDGs Goal PP shall explore the possibilities for the reduction of specific diesel consumption by</p>	<p>We will install 2 MW of on grid solar panels at the plant and outside the plant premises on roads. Auto power cut-off system will be provided for the plant when the operation is temporarily stopped to save electricity. We shall transition to electric automobiles</p>

	<p>deploying the e-vehicles/LNG/CNG-based trucks, installing solar lights in the plant and outside the plant premises on roads, using auto power cut-off system to save electricity, increase plantation & green belt etc.</p>	<p>gradually in phase wise manner. Initially, depending on what is available in the market, we plan to convert 10% of all trucks to electric vehicles. Then, in the future, the number of electric vehicles will progressively expand based on availability. PP also submitted an undertaking regarding the same.</p>
7.	<p>The Committee enquired about the validity of NABL certification of the Testing lab for the baseline period.</p>	<p>NABL certification of the Testing lab for the baseline period submitted.</p>
8.	<p>The Committee observed that the water requirement is 350 KLD and NOC from CGWA has been obtained for 95 KLD valid till 5/7/2024 and same is in the name of the earlier PP i.e. M/s Clean Coal Enterprises Pvt. Ltd. The Committee is of the view that the PP should submit the copy of NOC in the name of M/s Radiant Coal Benefication Pvt. Ltd for 350 KLD or copy of application submitted to CGWA in this regard. Further, the project proponents shall explore the possibility of utilization of treated sewage water /treated effluent from the industries located nearby for industrial purpose, in lieu of the ground water.</p>	<p>PP submitted the CGWB NOC in the name of M/s Radiant Coal Benefication Private Limited for 95 KLD. For balance requirement to meet 350 KLD water, we have applied for ground water permission and PP also submitted the copy of the acknowledgement.</p>
9.	<p>The project proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. Accordingly, PP shall submit the compliance w.r.t Ministry's OM dated 23/05/2019.</p>	<p>We agreed to reuse internal wastewater to the fullest extent and extract ground water only for the makeup need. As such the specific make up water consumption is expected to be 5.2 l/tonne of coal, which is very less as per the prescribed norms.</p> <p>We agreed to comply with OM dated 23/05/2019.</p>

		PP also submitted pointwise compliance of all conditions w.r.t OM dated 23/05/2019.
10.	Committee is of the view that PP shall show the credible documents with respect to ownership of land. It is suggested that metric system shall be used and area in hectares to be provided after converting the acres. If there are multiple documents, then summary of the same shall be provided along with chronology.	<p>Existing plant is over 4.55 ha or 11.25 acres and total land was under the possession of M/s Clean Coal Enterprises Pvt Ltd. Copy of land documents are submitted.</p> <p>Thereafter, Business agreement was signed between M/s Clean Coal Enterprises Pvt Ltd & M/s Radiant Coal Benefication Private Limited. Total business transferred to M/s Radiant Coal Benefication Private Limited. PP submitted the copy of agreement.</p> <p>Accordingly, Environmental Clearance transfer has been obtained from SEIAA, Chhattisgarh, vide letter no. 2608/SEIAA, CG/58 dated 19.01.2024 in favour of M/s Clean Coal Enterprises Pvt Ltd. Copy of EC transfer was submitted along with the reply.</p> <p>Meanwhile, PP registered the Firm M/s Radiant Enterprises and total land is transferred to M/s Radiant Enterprises by partnership deed with M/s Clean Coal Enterprises Pvt Ltd. Copy of partnership deed was also submitted by PP.</p> <p>Thereafter, existing land of 4.55 ha or 11.25 acres is taken on lease basis by M/s Radiant Coal Benefication Private Limited from M/s Radiant Enterprises. Copy of lease deed is submitted.</p> <p>Additional land of 5.73 ha or 14.16 acres was also taken on lease basis by M/s Radiant Coal Benefication Private</p>

		<p>Limited from M/s Radiant Enterprises. PP submitted the copy of lease deed.</p> <p>PP also submitted the summary of land involved in proposed project (Existing + Expansion).</p>
11.	<p>The Committee observed that budget provision w.r.t issues raised during PH needs to be revised as it is for only 2 years. Therefore, the PP revisit the issues raised during PH and submit the revised budget for 10 years for addressing these.</p>	<p>Public hearing for our above said project was held on 27.07.2023 Under the chairmanship of Mr. S.P. Waid, Additional Collector.</p> <p>During public hearing, most of the people welcomed the project and raised few points related to generation of Employment for the locals, Water requirement for irrigation, Air Pollution Control Measures, Road Safety Measures, Concern about health of local people.</p> <p>As per MoEF&CC Office Memorandum vide F.No.22-65/2017-IA.III dated. 30th September 2020, following is budgetary allocation for commitment made by Project Proponent to address the concern raised during public hearing. Total budget of INR 37 lakhs has been initiated along with break of 10 years.</p> <p>PP submitted the revised budget of PH.</p>
12.	<p>The Committee observed that there is some calculation error in EMP Budget. Further, considering the above observations (Sl. 1 to 11), PP shall submit the revised EMP budget.</p>	<p>The capital cost for environmental management of the expansion project is estimated to be Rs. 350 lakhs. Rs. 168.5 lakhs per year will be required as annual recurring expenses to meet the recurring expenditure for implementing the measures.</p> <p>Revised EMP budget is submitted by PP.</p>

The PP and NABET Accredited consultant made a detailed presentation and the observation of EAC including previous observations are as follows:

- 1) The project is for expansion in capacity of EC dated 20/10/2009 from 0.90 MTPA to 2.5 MTPA over an area of 10.28 Ha.
- 2) The EC was transferred in the name of M/s Radiant Coal Benefication Pvt. Ltd on 19/01/2024.
- 3) The project does not involve any Forest land and does not fall under CPA/SPA.
- 4) Previously Committee observed that as per DSS there is a forest area visible inside the project boundary in north side. The Committee is of the view that a clarification in this regard may be submitted along with distance of the project site from forest. *The Committee observed that PP has submitted a distance certificate from DFO issued vide letter no 3648 dated 8.05.2024 wherein it has mentioned that there is no wildlife sanctuary and national park within 10 KM of the project site. The distance of crocodile conservation project at a distance of 19.7 KM. It has also been mentioned in the letter that the RF 51 is at a distance of 302 meters from the project site.*
- 5) The Committee previously observed that PP has approached the concerned RO of MoEF&CC for CCR but the inspection could not be done within the stipulated timeline. Therefore, PP has approached the concerned SPCB for the same, according to the Ministry's O.M 8.06.2022. The site was inspected by the Regional Officer, SPCB on 10/10/2023, as per the inspection report, PP has installed the bag filter, provided water spraying arrangement, transportation is by covered trucks, etc. There are no adverse comments about the compliance of EC Conditions. However, it has been mentioned that for the treatment of domestic waste septic tank is used. The Committee is of the view that PP shall install a STP for the same. As the inspection report was recorded in Hindi, Committee asked PP to submit a self-compliance report in English. The Committee also asked for geo-tagged photographs of Air & Water Control Pollution Devices. PP in ADS reply submitted the self-compliance report and also informed that STP will be provided after expansion in place of septic tanks. PP also provided Geo tagged photographs of Air & Water Control Pollution Devices.
- 6) Standard ToR was granted on 05.04.2023 which is valid till 04.04.2027.
- 7) Baseline data has been collected from 1st Dec 2022 to 28th Feb 2023 (Winter Season) and is valid in pursuant to Ministry's OM dated 8/6/2022.

8) Notice for PH was issued on 25.06.2023 in a prominent newspaper namely The Daily Pioneer and Hari Bhoomi. The public hearing was conducted on 26/07/2023 under the Chairmanship of Mr. S.P. Waid, Additional Collector, District-Janjgir Champ. The major issue raised during PH is Employment for the locals, Air Pollution Control Measures, Water requirements for irrigation, Road Safety Measures, and concern about the health of local people. PP has earmarked an amount of Rs 18.6 Lakhs for addressing the issues raised during PH. The Committee previously observed that budget provision w.r.t issues raised during PH needs to be revised as it is for only 2 years. Therefore, the PP revisit the issues raised during PH and submit the revised budget for 10 years for addressing these. The PP now submitted the revised budget for PH and earmarked Rs. 37 Lakh towards the same. The Committee also deliberated on the issue raised during PH and noted that budget proposed now is still very less to address the issues effectively and asked the PP to revise the same. The PP vide letter dated 06.06.2024 submitted that the budget is revised from Rs 37 Lakh to Rs 1.0 Cr for 10 years and Rs 10 Lakh as recurring cost. Details of the same is as under:

S. N o.	Issue Raised during PH	Physical Activity and action plan	Budget	2024-26	2026-28	2028-30	2030-32	2032-34
1.	Employment for the locals	completion of training, the youths will be offered employment in company in suitable grade.	40 Lakhs Stipend – 20 Lakh (Rs. 40000/- stipend per year to 50 persons for 1 year) ITI Fee – 20 Lakhs (Rs. 40000/- yearly fee for 50 persons for 1	8 Lakhs	8 Lakhs	8 Lakhs	8 Lakhs	8 Lakhs

			year)					
2.	Air Pollution Control Measures	Tree plantation (2000 trees) will be done in nearby villages Tadgabaha, Bhilairi and Jharradih, on both sides of Hardi Bazar road and near to water reservoir. Regularly mobile water sprinkling	25 Lakhs 10 Lakhs (500 per Tree for 2000 trees) 15 Lakhs (Regularly mobile water sprinkling)	5 Lakhs 2 Lakhs (For 100 Trees in Village Tadgabaha, 100 trees near to water reservoir and 200 trees on Hardi Bazar Road)	5 Lakhs 2 Lakhs (For 100 Trees in Village Bhilairi, 100 trees near to water reservoir and 200 trees on Hardi Bazar Road)	5 Lakhs 2 Lakhs (For 100 Trees in Village Jharradih, 100 trees near to water reservoir and 200 trees on Hardi Bazar Road)	5 Lakhs 2 Lakhs (For 100 Trees in Village Tadgabaha, 100 trees near to water reservoir and 200 trees on Hardi Bazar Road)	5 Lakhs 2 Lakhs (For 100 Trees in Village Tadgabaha, 100 trees near to water reservoir and 200 trees on Hardi Bazar Road)
3.	Water requirement for irrigation	Construction of RWH structure in Village Baloda.	10 Lakhs	10 Lakhs	--	--	--	--
4.	Road Safety Measures	Traffic Awareness	17 Lakhs	3.4 Lakhs	3.4 Lakhs	3.4 Lakhs	3.4 Lakhs	3.4 Lakhs

		programme will be conducted in villages Tadgabahra, Bhilairi and Jharradih.	4 Lakhs	0.8 Lakhs	0.8 Lakhs	0.8 Lakhs	0.8 Lakhs	0.8 Lakhs
		Installation of convex mirror (40 nos.), speed beaker (40 nos.) and traffic signal (20 nos) on Hardi Bazar Road.	3 Lakhs	0.6 Lakhs	0.6 Lakhs	0.6 Lakhs	0.6 Lakhs	0.6 Lakhs
		Maintenance of Hardi Bazar road	10 Lakhs	2 Lakhs	2 Lakhs	2 Lakhs	2 Lakhs	2 Lakhs
5.	Concern about health of local people	Conducting Health checkup annually in Villages Tadgabahra, Bhilairi and Jharradih	8 Lakhs	2 Lakhs	2 Lakhs	2 Lakhs	2 Lakhs	2 Lakhs
		Conducting Health checkup annually in Villages Tadgabahra, Bhilairi and Jharradih		Health checkup annually in Villages Tadgabahra : Rs. 0.8	Health checkup annually in Villages Tadgabahra : Rs. 0.8	Health checkup annually in Villages Bhilairi : Rs. 0.8 Lakhs	Health checkup annually in Villages Bhilairi : Rs. 0.8 Lakhs	Health checkup annually in Villages Jharradih : Rs. 0.8 Lakhs

			Jharradi h:- Rs. 4 Lakhs	Lakhs	Lakhs			
			Distributi on of Medicine s and other health facilities such as Ambulan ce:- Rs. 4 Lakhs	Distribu tion of Medici nes and other health facilitie s such as Ambula nce:- Rs.0.8 Lakhs	Distribu tion of Medici nes and other health facilitie s such as Ambula nce:- Rs. 0.8 Lakhs	Distribu tion of Medici nes and other health facilitie s such as Ambula nce:- Rs.0.8 Lakhs	Distribu tion of Medicin es and other health facilitie s such as Ambula nce:- Rs. 0.8 Lakhs	Distribu tion of Medicin es and other health facilitie s such as Ambula nce:- Rs. 0.8 Lakhs
Total			100 Lakhs	28 Lak hs	18 Lakh s	18 Lakh s	18 Lakh s	18 Lakh s

The Committee is of the view that PP shall upload the entire information on Parivesh also after uploading of the MoM.

- 9) The Committee previously viewed the KML file and photograph of the plant site and is of the view as to why the coal dust is visible outside the project area. The PP informed that it is adjacent to the other Coal Washery of the same PP and due to this coal is seen outside the project area. As desired by the Committee, PP showed the green belt on the KML file and also informed that a wind barrier has been provided as required by SPCB. The Committee is of the view that PP shall install a rain gun and wash the trees regularly. Further, the Committee is of the view that PP shall also carry out regular water spraying in and around the project site and also increase the green belt. A plan to this effect should be submitted. The PP in its ADS reply submitted that “We will provide dust suppression systems on the open coal yards and internal roads by using the treated water from proposed STP during expansion. PP will explore the possibilities to use treated sewage water /treated effluent from the nearby industries also. Dust suppression is being done and the same will be followed after expansion on coal yards, internal roads and transportation routes which connect the project site and NH-130A on regular basis. Measures such as regular watering, pruning, and cleaning of leaves will be done using mobile tankers with high-pressure pumps”. PP also submitted an undertaking for the same. *The Committee observed that in the undertaking PP*

submitted that water will be sprayed once in day. The Committee is of the view that this is not sufficient and PP shall do water spraying at regular intervals to control the fugitive dust emission and a log of water tanker needs to be maintained. The water should have GPS fitted in and record of trips with GPS track needs to be maintained. The Committee also observed that the budget proposed (Rs 15 Lakh) for the installation of the rain gun is very low and PP should submit the revised budget. PP vide letter dated 06.06.2024 submitted that the Capital cost for installation of Raingun is increased to Rs.25 Lakh and Rs. 10 lakh/year as annual recurring expenses under EMP budget. PP also submitted an undertaking in this regard.

The Committee is of the view that as per photographs it seems that these are fixed types units and PP shall deploy mobile rain gun/fog cannon for the same. Further, for water spraying on road, PP shall use separate water tankers for both projects. PP vide letter dated 06.06.2024 also submitted an undertaking that they will use the separate water tanker for both projects.

- 10) The Committee observed that there are gaps in the plantation as visible from the photos shown by the PP. The Committee therefore asked the PP to submit the revised plantation budget and the plantation should be completed within one year. The Committee also suggested that PP shall also propose for Miawaki Plantation in 1 Ha area.

PP vide letter dated 06.06.2024 submitted that more than 33% greenbelt has been developed for the existing project i.e. 1.89 ha and an additional 1.51 ha area will be developed for the expansion project. Hence, the total green area after expansion will be 3.40 ha. Plantation work will be completed by 2024-2025. Nos. of Trees already Planted is 3,811, Nos. of Trees required to be planted for expansion = $1.51 \times 2,500 = 3775$, As per the suggestion of Hon'ble EAC, we proposed additional Plantation i.e. 500 Nos trees within the project. Hence, the Total Nos. of trees to be planted for expansion = $3,775 + 500 = 4,275$. A list of tree species to be planted is also submitted. The total Budget for the Plantation is INR 21.5 Lakh as Capital Cost and Rs. 4 Lakh as annual recurring Cost for three years. Committee observed that in EMP budget details the Budget earmarked for Green belt Development is Rs 21.5 Lakhs as capital and Rs. 10 Lakhs as annual recurring.

PP also proposed that an additional 2000 no's of trees will be planted. 1000 no's trees will be planted on both sides of the transportation route, 500 no's trees near school premises and 500 no's trees near the water reservoir. The total Budget for the additional Plantation is INR 10 Lakh as Capital Cost and Rs. 2.5 Lakh as annual

recurring Cost for three years. PP also proposed for Miyawaki Plantation in 1 Ha area. PP also submitted an undertaking in this regard.

- 11) The Committee previously deliberated on the transportation route and is of the view that PP shall submit the cumulative GLC and traffic study of both of these projects of PP. The PP in its ADS reply submitted that "Cumulative Impact Assessment (CIA) has been done considering the emission from both coal washery projects including traffic emission. Air quality modeling has been performed using model AERMOD and cumulative incremental GLC value for PM10, PM2.5, SO2, NO2 & CO are respectively is 2.85 µg/m³, 1.92 µg/m³, 0.46 µg/m³, 8.53 µg/m³, & 0.19 µg/m³. Traffic study with volume count was carried out for 24 hours on working day at Hazari Bazar Road and NH-130A. It is envisaged that there will be overall increase in existing traffic load. The additional no. of trips per day after proposed project will be 52 PCU/hr. hence, the additional load on the carrying Capacity of the concern roads is not likely to have a drastic change in the LOS value. Therefore, LOS value will remain same after considering additional traffic due to project. The LOS for NH-130A & Hardi Bazar Road during operation phase will remain same i.e., "Good". The Committee deliberated on the same and is of the view that PP shall also plant trees along the road side in transportation route. PP vide letter dated 06.06.2024 proposed that an additional 2000 no's of trees will be planted. 1000 no's trees will be planted on both sides of the transportation route, 500 no's trees near school premises and 500 no's trees near the water reservoir. The total Budget for the additional Plantation is INR 10 Lakh as Capital Cost and Rs. 2.5 Lakh as annual recurring Cost for three years.

- 12) The Committee is of the view that PP shall monitor the heavy metal in the water samples, and install the piezometers for regular monitoring of groundwater level. PP in its ADS reply submitted that " We are in process of installation of piezometers for regular monitoring of groundwater level at one point upstream and at one point downstream of ground water flow. We are in process of finalizing vendor and same will be done before EAC meeting. Ground water has been tested at eight locations for heavy metals (Cu, Mn, B, Zn, As, Cd etc) during the study period by accredited laboratory. All parameters are well within the limit as prescribed by the norms". PP also submitted Water testing reports. PP also showed the photographs of the water level monitoring unit. Further, concerning monitoring of the heavy metals in groundwater, the Committee asked the PP to submit the frequency of monitoring. In this regard, PP vide letter dated 06.06.2024 submitted that the same shall be done twice/year and the report shall be submitted along with six monthly compliance reports to the concerned RO.

- 13) In the last meeting PP was asked to submit a concept note on the SDGR. Further, the Committee reiterated that to achieve the SDGs Goal, PP shall explore the possibilities for the reduction of specific diesel consumption by deploying the e-vehicles/LNG/CNG-based trucks, installing solar lights in the plant and outside the plant premises on roads, using auto power cut-off system to save electricity, increase plantation & green belt etc. In this regard the PP in its ADS reply submitted that “ We will install 2 MW of on grid solar panels at the plant and outside the plant premises on roads. Auto power cut-off system will be provided for the plant when the operation is temporarily stopped to save electricity. We shall transition to electric automobiles gradually in phase wise manner. Initially, depending on what is available in the market, we plan to convert 10% of all trucks to electric vehicles. Then, in the future, the number of electric vehicles will progressively expand based on availability”. PP also submitted an undertaking in this regard. The Committee further deliberated on this issue and emphasized on the use of cleaner fuel for transportation. PP vide letter dated 6.6.2024 submitted that Initially, depending on what is available in the market, we will try to convert 20% of all trucks to electric vehicles. Then, in the future, the number of electric vehicles will progressively expand based on availability. In addition to this PP also submitted that we will install common solar grid panels of 2 MW for both projects. The total Budget for solar grid is approx. INR 7 Cr as Capital Cost for both the projects.
- 14) The Committee previously enquired about the validity of NABL certification of the Testing lab for the baseline period. PP in its ADS reply provided the same.
- 15) The Committee previously observed that the water requirement is 350 KLD and NOC from CGWA has been obtained for 95 KLD valid till 5/7/2024 and the same is in the name of the earlier PP i.e. M/s Clean Coal Enterprises Pvt. Ltd. The Committee is of the view that the PP should submit the copy of NOC in the name of M/s Radiant Coal Benefication Pvt. Ltd for 350 KLD or copy of application submitted to CGWA in this regard. Further, the project proponents shall explore the possibility of utilization of treated sewage water /treated effluent form the industries located nearby for industrial purpose, in lieu of the ground water. PP vide letter dated 06.06.2024 submitted that “Ground water NoC for the existing water requirement i.e. 95 KLD is obtained from CGWA vide NOC No. CGWA/NOC/IND/REN/3/2021/6148 dated 10.08.2021 valid till 05.07.2024 and NoC for total water requirement i.e. 350 KLD (Existing + expansion) is obtained vide CGWA/NOC/IND/REN/4/2024/92443 dated 13.03.2024, which is valid till 05.07.2027. PP also submitted the copy of NOC valid till 05.07.2027.

16)The Committee previously asked that project proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. Accordingly, PP shall submit the compliance w.r.t Ministry's OM dated 23/05/2019. PP in ADS reply submitted that " We agreed to reuse internal wastewater to the fullest extent and extract ground water only for the makeup need. As such the specific make up water consumption is expected to be 5.2 l/tonne of coal, which is very less as per the prescribed norms. We agreed to comply with OM dated 23/05/2019". PP also submitted pointwise compliance of all conditions w.r.t OM dated 23/05/2019. The Committee observed that PP submitted that they had obtained CGWA NOC, installed piezometers, conducted a hydrogeological study and also explore the possibility of utilising the water from the industries within 10 KM of area. The Committee is of the view that PP shall within 6 months submit the detail of the industry they have identified for the same and the amount of water proposed to be used, to the concerned RO. The Committee observed that previously PP proposed for septic tank but now proposed for installation on a STP to treat domestic sewage. PP has increased the EMP cost accordingly.

17)The Committee previously asked that PP shall show credible documents with respect to ownership of land. It is suggested that metric system shall be used and area in hectares to be provided after converting the acres. If there are multiple documents, then summary of the same shall be provided along with chronology. PP vide letter dated 06.06.2024 submitted that "existing plant is over 4.55 ha or 11.25 acres and total land was under the possession of M/s Clean Coal Enterprises Pvt Ltd. Thereafter, Business agreement was signed between M/s Clean Coal Enterprises Pvt Ltd & M/s Radiant Coal Benefication Private Limited. Total business transferred to M/s Radiant Coal Benefication Private Limited. Accordingly, Environmental Clearance transfer has been obtained from SEIAA, Chhattisgarh, vide letter no. 2608/SEIAA, CG/58 dated 19.01.2024 in favour of M/s Clean Coal Enterprises Pvt Ltd. Meanwhile, PP registered the Firm M/s Radiant Enterprises and total land is transferred to M/s Radiant Enterprises by partnership deed with M/s Clean Coal Enterprises Pvt Ltd. Thereafter, existing land of 4.55 ha or 11.25 acres is taken on lease basis by M/s Radiant Coal Benefication Private Limited from M/s Radiant Enterprises. Additional land of 5.73 ha or 14.16 acres was also taken on lease basis by M/s Radiant Coal Benefication Private Limited from M/s Radiant Enterprises". The committee observed that the lease is only for 10 years for existing (from 19.12.2022) and for additional (from 24/05/2023). The Committee is of the view that although the validity of EC is as per the Ministry's OM dated 13/12/2022 but still for further operation PP should have a valid lease.

The Committee previously observed that there was some calculation error in EMP

Budget and asked for the revised EMP budget. PP in ADS reply submitted that the capital cost for environmental management of the expansion project is estimated to be Rs. 350 lakhs. Rs. 168.5 lakhs per year will be required as annual recurring expenses to meet the recurring expenditure for implementing the measures. The Committee also deliberated on the other EMP and is of the view that considering the above suggestion PP shall submit the revised EMP budget. PP vide letter dated 06.06.2024 submitted following EMP cost as per which Rs 417 Lakh (Capital) and Rs 168.5 Lakh/annum (recurring).

S. No	Activity	Capital Cost (Lakh)	Recurring expenses proposed/ annum (Lakhs)
1	Air Pollution Control Measures	155	49.5
	➤ DES and Bag House in crusher house	60	10.0
	➤ Fixed Water sprinklers	25	8.0
	➤ Mobile water sprinklers	15	8.0
	➤ Enclosures to belt conveyors	10	8.0
	➤ Asphalted internal roads	20	5.5
	➤ Rain gun	25	10
2	Water pollution control measures	150.5	26.5
	➤ Closed water Circuit, Thickener	85	15
	➤ Storm water drains	20	2.0
	➤ Sewage Treatment Plant	40	8.0
	➤ Piezometer to monitor ground water level	5.5	1.5
3	Green belt development	21.5	10
4	Occupational Health & Safety	20	10
	➤ Provision of PPE	10	5
	➤ Medical examination	10	5
5	Environment Management Cell	20	12.5
6	Environmental Monitoring	--	25
7	Risk Mitigation Measures	15	10
8	Budget for addressing PH issues	35	10
9	EMP during construction stage	--	15
Total		417	168.5

The Committee noted that in above table at S. No-8, INR 35 Lakh is taken from public hearing action plan budget. Further, in addition to the above mentioned EMP budget, additionally PP proposed INR 10 lakh as capital cost and INR 2.5 lakh as recurring cost for tree plantation outside the plant premises i.e. transportation route, near the reservoir and school.

*Based on the discussion held and the documents submitted, the Committee **recommended** the proposal for grant of EC for expansion in production capacity from 0.90 MTPA to 2.5 MTPA (over an area of 10.28 Ha), of Wet Type Coal Washery Project, located at Village-Baloda, Tehsil-Baloda, District-, Janjgir Champa, Chhattisgarh by M/s Radiant Coal Beneficiation Private Limited as per the provision of EIA Notification 2006 (as amended) subject to compliance of standard EC conditions and following specific conditions:*

- 1) *PP to obtain the CTO for 2.5 MTPA capacity after the grant of EC.*
- 2) *PP shall develop a green belt in an area of 3.4 Ha (33% of the project area; 4275 plants) during 2024-25 after the grant of EC. The budget earmarked for plantation is Rs 21.5 Lakh (Capital) and Rs. 10 Lakh (annual recurring Cost).*
- 3) *PP shall also plant 2000 no's of trees (1000 no's trees will be planted on both sides of the transportation route, 500 no's trees near school premises and 500 no's trees near the water reservoir). The total Budget for the additional Plantation is INR 10 Lakh as Capital Cost and Rs. 2.5 Lakh as annual recurring Cost for three years. In addition to this (beyond 3 years) PP must also carry out plantation drives (fruit-bearing trees, local species etc) with its proper maintenance in nearby villages by seeking consent of gram panchayat and villagers and a proper record must be maintained and furnished to RO with six monthly compliances.*
- 4) *PP shall develop Miyawaki Plantation in the 1 Ha area.*
- 5) *The budget earmarked for the green belt, plantation inside and outside the plant area, along the transportation route and Miyawaki Plantation area shall be kept in a separate account and audited annually. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs (before & after with geolocation date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC and on PARIVESH Portal as the case may be for the activities carried out during previous year.*
- 6) *PP shall prepare and design the layout of washery in such a way that least number of already existing tree is cut and accordingly approval of DFO shall be obtained before cutting of trees.*
- 7) *PP shall construct a 20 ft height wind barrier with galvanized/metal sheet all around the boundary of the washery and install fixed-type water sprinkler all along the boundary wall. In addition to this PP shall deploy mobile rain gun/fog cannon for*

washing of the trees and the budget proposed for the same is Rs 25 Lakh (Capital) and Rs. 10 lakh/year (Recurring).

- 8) *PP shall provide dust suppression systems on the open coal yards and internal roads by using the treated water from proposed STP during expansion. In addition to this PP shall ensure that regular water spraying shall be done on transportation route (including Hazari Bazar Road and NH-130A or any other place within 2km of the plant site). A log of the water tanker needs to be maintained. The water tanker should be fitted with a GPS Tracker and a record of trips with GPS track needs to be maintained. PP shall purchase a separate water tanker for this project.*
- 9) *PP shall install common solar grid panels of 2 MW for both projects. The total Budget for the solar grid is approx. INR 7 Cr as Capital Cost for both projects. In addition to this Auto power cut-off system shall be provided for the plant when the operation is temporarily stopped to save electricity.*
- 10) *PP shall replace the existing fleet with e-vehicles/LNG/CNG-based trucks for the transportation of coal and 20% of the same shall be replaced within one year. Additionally, water spraying shall be done on regular basis inside and around (2 KM) the project area on a regular interval and a log book should be maintained for the same.*
- 11) *All the roads proposed to be constructed inside and around the periphery of the washery plant shall be concrete road only.*
- 12) *No village road shall be used for transportation of coal and no road transport route shall be adopted, which is passing through any sensitive location such as schools, hospitals etc.*
- 13) *PP shall install a 10 KLD STP within a period of one year to treat domestic waste and treated water shall be used for plantation or water spraying inside the project area.*
- 14) *PP shall within a period of 6 months submit the detail of the industry identified for sourcing water and quantity of water to RO, MoEF&CC. An annual water audit needs to be done to optimize the groundwater requirement. The audit report shall be submitted to RO, MoEF&CC every year.*
- 15) *PP shall implement the protective measure proposed in EMP in a time-bound manner. The budget earmarked for the same is Rs 417 Lakhs (Capital) and Rs 168.5 Lakhs(recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year. In addition to this PP shall install 1 continuous ambient air quality monitoring station at suitable locations preferably the village side with the consultation of SPCB before commissioning of washery operations for extended capacity.*

- 16) *The real time data so generated from CAQMS shall be uploaded on company website and linked it with website of CPCB & SPCB. In addition, data should also be displayed digitally at the entry and exit gate of Washery for public display.*
- 17) *PP shall also install CCTV cameras at the entrance and at the four corners of the plant boundary. PP shall ensure that the same shall be maintained in working conditions.*
- 18) *PP shall implement the activities proposed to address the issues raised during PH. The budget earmarked for the same is Rs 100 Lakh (Capital) and Rs 10 Lakh (recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year. In addition to this PP shall use the CSR budget for providing medical facilities, education facilities and other work related to social welfare and skill development on a yearly basis. The expenditure for the same needs to be audited and PP shall submit the proof of activities to RO in a compliance report.*
- 19) *PP shall carry out a study for the assessment of the damage caused to crop of the nearby land owners around the coal washery from a Govt. Institute. Based on the outcome of the report necessary compensation shall be paid to land owners as assessed by the District Administration.*
- 20) *The technology so chosen for ETP within washery should conform to 'Zero Liquid Discharge'.*
- 21) *No treated & untreated wastewater shall be discharged outside the boundaries of project area.*
- 22) *PP shall monitor the heavy metal in the water samples at least twice/year, and install the piezometers for regular monitoring of groundwater level. Report shall be submitted along with six monthly compliance reports to the concerned RO.*
- 23) *NoC from Central Ground Water Authority (CGWA)/ concerned local authority, as the case may be, shall be obtained before drawing the ground water for the project activities, state pollution control board/pollution control committees shall not issue the consent to operate (CTO) under Air (prevention and control of Pollution) Act and Water (Air (prevention and control of Pollution) Act till the project proponent shall obtain such permission.*
- 24) *PP to undertake the recruitment of a full-fledged qualified manpower with Environmental Engineer/Env. Science degree background in Environment Management Cell etc at coal washery plant for compliance of EC conditions.*

- 25) *Solar street light to be installed with its proper maintenance inside the plant and along the road of incoming raw coal & outgoing washed coal to avoid accident in nearby villages and a record must be furnished to RO with six monthly compliances.*
- 26) *PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms.*
- 27) *PP must provide the workers proper PPE and must also trained them and a record of training must be furnished to RO.*
- 28) *Proponent shall get the Regular and Periodical medical examination of the workers engaged in the Project by an Occupational Health Specialist, and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly.*
- 29) *PP shall deploy suitable manpower for management of traffic due to transportation of coal from this Washery to avoid accidents.*
- 30) *PP shall ensure that suitable parking area shall be provided for the parking of the trucks and necessary arrangements (drinking water facility/ rest room/ toilets etc.) shall be provided for the drivers & helpers.*
- 31) *Although the validity of EC is as per the Ministry's OM dated 13/12/2022 but still for further operation of Washery PP should have a valid lease.*
- 32) *PP shall submit the approved Wildlife Conservation Plan to RO and budget approved shall be deposited as suggested by approving authority.*

Agenda No 12.6

Proposal for Amendment in Environment Clearance (EC) of Coal Washery of MDCWL Limited located near KDH Mines of Central Coalfields Ltd. in villages Bistrampur and Churi, Karanpura, District Ranchi, State Jharkhand – Regarding Amendment in EC

[Online Proposal No. IA/JH/CMIN/468012/2024; File No. J11015/260/2008-IA-II(M); Consultant: Min Mec Consultancy Private Limited; NABET/EIA/2225/IA 0096 valid till 29.03.2025]

12.6.1: Coal Washery (5 MTPA of raw coal) of M/s MDCWL Limited located near KDH Mines of Central Coalfields Ltd. in villages Bistrampur and Churi, Karanpur, District Ranchi, Jharkhand. The said project has been accorded the EC by the mode of transfer from Monnet Daniel Coal Washeries Private Limited to MDCWL Limited. The date of issue

of the prior EC was 10.12.2008 vide letter no. J-11015/260/2008-IA.II(M), which was further amended on 26.12.2013.

12.6.2: The current proposal is for amendment in Environment Clearance, for which the PP has made an online application vide proposal no. IA/JH/CMIN/468012/2024 for amendment in EC conditions, details of which are as follows:

(1) Specific condition: Point (ii) of EC dated 10.12.2008: Increase the storage capacity of stock from 1 day to 30 days. And,

(2) Condition no. (i) in EC amendment dated 26.12.2013: rejects shall go to FBC based thermal power plants, other consumers, and traders by rail/ road.

12.6.3: MDCWL Limited has made an online application vide proposal no. IA/JH/CMIN/468012/2024 for amendment in Environmental Clearance granted vide Letter No. - J-11015/260/2008-IA.II(M), which was further amended on 26.12.2013. The details of the amendment sought and justification for the same is as follows:

Specific/ General Condition No.	Details of Condition	Amendment Sought	Justification
Specific condition: Point (ii) of EC dt. 10.12.2008	Raw & washed coal & rejects shall be stacked properly at earmarked site within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that stored minerals do not catch fire. Only 1 day stock shall be stored in stockyard.	Raw & washed coal & rejects shall be stacked properly at earmarked site within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that stored minerals do not catch fire. 30 days stock shall be stored in stockyard.	Stock consumption by consumers is seasonal & requires more storage in off season. Washery products are sent by rail only & priority is given to washed coal & raw coal rakes by IR. Thus, there is shortage of rakes for regular evacuation washery rejects.
As per amendment no. (i) In EC amendment dt. 26.12.2013	After fulfilling requirements of Monnet Ispat & Energy Ltd.'s (MIEL)170 MW (240 TPH AFBC, 336 TPH CFBC Boilers) Power	Rejects shall go to FBC based thermal power plants, other consumers and traders by rail/ road.	MIELs 170 MW plant has been purchased by JSW, who has made different fuel arrangement. There

Specific/ General Condition No.	Details of Condition	Amendment Sought	Justification
	Plant situated at Raigarh in Chhattisgarh, any surplus rejects shall go to FBC based thermal power plants by rail with whom they have MOU.		is seasonal demand for rejects from various other consumers across Jharkhand & neighboring states. We are unable to send the reject due to restriction in EC.

12.6.4: Deliberation by the EAC in the meeting:

PP along with NABET Accredited consultant made a detailed presentation on EC conditions that require amendments along with its justification. The Committee deliberated on various aspects of the proposal submitted and the presentation made by PP. After detailed deliberation, the Committee observed the following:

1. As regards to Specific condition: Point (ii) of EC dt. 10.12.2008, the condition is that the raw & washed coal & rejects shall be stacked properly at the earmarked site within stockyards fitted with windbreakers/shields. Adequate measures shall be taken to ensure that stored minerals do not catch fire. Only 1 day stock shall be stored in stockyard.

The amendment sought by the PP is that the Raw & washed coal & rejects shall be stacked properly at earmarked site within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that stored minerals do not catch fire. **30 days stock shall be stored in the stockyard.**

The PP submitted that Stock consumption by consumers is seasonal & requires more storage in off off-season. Washery products are sent by rail only & priority is given to washed coal & raw coal rakes by IR. Thus, there is a shortage of rakes for regular evacuation washery rejects.

The Committee deliberated on the submission of PP regarding the amendment of this condition and is of the view that PP shall first submit the comparative of time taken in obtaining the permission by concerned authority. The Committee also noted that PP has shown the incremental concentration of air pollutants and observed that why PP is proposing for water spraying when there is a very slight increase in values. PP submitted that they proposed it for air pollution control as well as for safety purpose to avoid any fire outbreak from the stocked coal.

2. As regards to amendment no. (i) In EC amendment dt. 26.12.2013, the condition is that, after fulfilling requirements of Monnet Ispat & Energy Ltd.'s (MIEL)170 MW (240 TPH AFBC, 336 TPH CFBC Boilers) Power Plant situated at Raigarh in Chhattisgarh, any surplus rejects shall go to FBC based thermal power plants by rail with whom they have MOU.

The amendment sought by the PP is that the rejects shall go to FBC based thermal power plants, other consumers and traders by rail/ road.

The PP submitted that MIELs 170 MW plant has been purchased by JSW, who has made different fuel arrangements. There is seasonal demand for rejects from various other consumers across Jharkhand & neighboring states. We are unable to send the reject due to restriction in EC.

The Committee deliberated on the submission of PP regarding the amendment of this condition and is of the view that it is not clear that how the other consumer will use the rejects in more environment friendly manner than FBC based thermal power plant.

*In addition to above, the Committee also observed that a show cause notice has already been issued to the project for non-compliance of EC conditions and PP shall get it closed first and submit the above information for further deliberating on the proposal. In addition to this, PP shall also provide the details of incubation period of coal coming to this Washery, any government regulations restricting the storage limit. The Committee therefore **deferred** the proposal for compliance of above observations.*

Agenda No. 12.7

Proposal for Amendment in Environment Clearance (EC) of Pakri Barwadih Coal Mining Project, located in Tehsil Barkagaon, District Hazaribagh of State Jharkhand (ML Area 3319.42 Ha, capacity 18 MTPA) by NTPC Mining Limited – Regarding Amendment in EC

[Proposal No. IA/JH/CMIN/471503/2024; File No. J11015/692/2007-IA-II(M); Consultant: Min Mec Consultancy Private Limited; NABET/EIA/2225/IA 0096 valid till 29.03.2025]

12.7.1: The Pakri Barwadih Coal Mine Project of M/s NTPC Mining Limited located in villages Barkagaon, Itij, Chiruadih, Urub, Chepa, Kalan, Nagri, Jugra, Sinduari, Churchu, Arahara, Sonbarsa, Pakri- Barwadih, Chepa-Khurd, Deora-Kalan, Lakura, Langatu, Keri, Dadikalan, Tehsil Barkagaon, District Hazaribagh, Jharkand State has been accorded EC vide letter no. J-11015/692/2007-IA.II (M) dated 06.03.2024 for enhancement of PRC (1st phase - 20%) from 15 MTPA to 18 MTPA within the mining lease area of 3319.42 Ha.

12.7.2: The Proposal is for amendment in Environment Clearance, which was transferred to NTPC Mining Limited vide EC Identification No. EC23A0101JH5859429T, dated 02.05.2024. The PP has now made an online application vide proposal no. IA/JH/CMIN/471503/2024 dated 03.05.2024 for amendment of EC condition no.- 2A(ix) of EC accorded vide letter no. J-11015/692/2007-IA.II (M) dated 19.05.2009 and its further amendments for extension of the timeline regarding the transportation of coal by road till 31.12.2024 in place of 31.07.2024.

12.7.3: NTPC Mining Limited has made an online application vide proposal no. IA/JH/CMIN/471503/2024 Dated 24.05.2024 for amendment in Environmental Clearance granted vide Letter No.- J-11015/692/2007-IA.II (M) Dated 19.05.2009. The details of the amendment sought and justification for the same is as follows:

Specific/General Condition No	Details of Conditions	Amendment Sought	Justification
Specific Condition No.- 2A (ix)	The PP needs to complete the construction of closed belt conveyor system of a length of 13 km to Banadag railway station. The pp is permitted till 31.07.2024 to use Service road/State Highways for transportation of coal to Banadag railway siding.	The PP is permitted till 31.12.2024 to use Service Road/State Highways for transportation of coal to Banadag railway siding by adopting all mitigative measure to control dust pollution.	Silo Rapid Loading System is still under construction and was getting delayed due to various land acquisition and local law and order issues. The delay in construction was mainly due to the unavailability of land. It is pertinent to submit that due to the continuous agitations of locals for fulfilment of demands beyond the acquisition policy etc., NTPC had to repeatedly write to the Deputy Commissioner, Hazaribagh, Jharkhand requesting for deployment of police personnel for taking possession of

			<p>the notified land (for which the payment was already disbursed/ compensation was already deposited). Due to such protest and agitations, the required extent of land could be taken in possession only on 28.04.2023. After 28.04.2023, construction of Silo Rapid Loading System is in full swing and complete conveyor belt system is expected to be completed by 31.12.2024.</p> <p>Hon'ble Supreme Court has extended the timeline for completion of belt conveyor system till 31.12.2024 vide its order dated 29.01.2024 in the matter of Misc. Appeal No. 1824 of 2023 in Civil Appeal No. 6249 of 2021 (NTPC Ltd v. Tripurari Singh and Others).</p>
--	--	--	--

12.7.4: Deliberation by the EAC in the meeting:

PP and NABET Accredited consultant made a detailed presentation for seeking an amendment in EC condition related to the timeline for road transportation and justification for seeking the amendment in EC. The Committee deliberated on various aspects of the proposal submitted and the presentation made by PP. After detailed deliberation, the Committee observed the following:

1. The Committee noted that the EC for the project was accorded vide letter no. J-11015/692/2007-IA.II (M) dated 19.05.2009. Specific Condition no. – 2A (ix) of EC stipulated that coal was to be transported from CHP to Railway siding by closed belt conveyor. The railway siding shall be provided with Silo Rapid Loading System. This condition was later amended vide EC amendment dated 29.06.2016 and coal transportation by road was permitted from mines to Banadag Railway siding for two years i.e. up to 28.06.2018 and this timeline was further extended till 31.07.2024 vide various amendments dated 14.07.2018, 10.11.2020, 16.08.2023, 09.11.2023 and 15.01.2024 subject to the order of Hon'ble Supreme Court wrt Misc. Appeal (MA-001824 dated 18.08.2023) in the matter of Civil Appeal no 6249/2022 (NTPC vs Tripurari Singh Ors) filed by the Project Proponent.
2. The PRC of the project was enhanced from 15 MTPA to 18 MTPA vide EC dated 06.03.2024 and while granting this EC the Ministry permitted the coal transportation by road till 31.07.2024 i.e. as amended vide EC amendment letter dated 15.01.2024. After that, EC was transferred to NTPC Mining Limited from NTPC Limited on 02.05.2024.
3. PP now submitted the proposal for amendment in the Specific Condition no. 2A(ix) of EC dated 19.05.2009 (last amended vide EC dated 15.01.2024) regarding the construction of a closed belt conveyor system of a length of 13 km to Banadag railway station and use service road/ State Highways for the transfer of coal to Banadag railway siding till 31.12.2024 in place of 31.07.2024.
4. PP showed the progress of work completion. PP submitted that the Belt Conveyor of 8 Km from Mine to the Stacker/Reclaimer area is operational. Both streams A and B (13 Km length) from the Stacker/Reclaimer area up to TP-10 have been completed and are in operation. The PP further submitted that Silo Rapid Loading System is still under construction and was getting delayed due to various land acquisition issues and the required extent of land could be taken in possession only on 28.04.2023. After 28.04.2023, the construction of the Silo Rapid Loading System is in full swing and the complete conveyor belt system is expected to be completed by 31.12.2024. PP mentioned that almost 99% of work is completed for Civil Construction, Structural Supply, Electrical and Mechanical supply. Further 70% of Structural erection work is completed. *The Committee noted that physical progress has increased. It shows that the momentum of work has taken place. It has also been noted that PP is committed to implement the entire works of the belt conveyor system and silo loading by December 2024. However, to keep the regular monitoring of the pace of implementation, the Committee emphasised to submit the monthly progress report of conveyor belt and silo*

loading system to RO, MoEF&CC. PP also showed the photographs of the construction work and drone video of the same.

5. The Committee asked the PP to submit the CCR. PP submitted that the site visit/inspection was done by RO Ranchi on 30.05.2024 and the CCR is awaited. The Committee asked the PP to follow up for early submission of the report. CCR for the visit is received on 19.06.2024. The Committee observed that there are some partially complied conditions related to i) plantation on slope haul road facing Lathorwa nallha and OB dump C in SW direction for which PP has assured for grassing & plantation by monsoon 2024. It has mentioned in the report that plantation of 8000 saplings has been done on Dump C on 05.06.2024, ii) catch drain in the east direction of OB dump C for which PP submitted that after shifting of villagers the same shall be completed, iii) regarding taking precaution for mining near to the villages and shifting of people, iv) providing wind breaker and plantation around both side of railway siding & settling pond for which PP reported that construction work is going on and plantation shall be taken after completion of the same, v) burning of coal in Dump D, and vi) Installation of second CAAQMS, for which PP has assured to install the second CAAQMS within six months' time. *The Committee is of the view that PP shall expedite the compliance and submit an ATR with documentary proof and photographs to concerned RO within 6 months.*
6. The committee also enquired about the status of the Court case in the matter of Misc. Appeal No. 1824 of 2023 in Civil Appeal No. 6249 of 2021 (NTPC Ltd v. Tripurari Singh and Others) regarding the extension of the timeline for completion of the closed conveyor belt system. PP submitted that the Hon'ble Supreme Court has extended the timeline for completion of the belt conveyor system till 31.12.2024, vide its order dated 29.01.2024 and the matter was disposed of. PP also displayed a copy of the Court Order during the presentation.

*Based on the submission of the project proponent, EAC **recommended** the proposal for extension to amend the EC for use of service road/ State Highways for transfer of coal to Banadag railway siding up to 31.10.2024 for Pakri Barwadih Coal Mine Project (ML Area 3319.42 Ha, capacity 18 MTPA) of NTPC Mining Limited located in Tehsil Barkagaon, District Hazaribagh of State Jharkhand, subject to the order of Hon'ble Supreme Court wrt Misc. Appeal (order dated 29.01.2024) in the matter of Civil Appeal no 6249/2022 (NTPC vs Tripurari Singh Ors) filed by PP and also under the provisions of Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions: -*

Specific Conditions:

- i. *PP needs to submit the monthly progress report of the conveyor belt and silo loading system to RO.*
- ii. *PP shall expedite the compliance and submit an ATR with documentary proof and photographs to concerned RO within 2 months.*

- iii. *The plantations done by the PP need to be adequately densified and audited by a third party preferably a forestry institution of MoEFCC (e.g. ICFRE) to assess their efficacy. Densification of existing plantations shall also be done during the monsoon of 2024.*
- iv. *The other terms and conditions of earlier granted ECs and EC amendments shall remain the same.*

Agenda No. 12.8

Proposal for Amendment in Environment Clearance (EC) of Mugoli Nirguda Extension Deep OC Mine of 5.25 MTPA with project area of 1267.55 Ha, located in villages – Kolgaon, Matholi, Mugoli, etc, District Yavatmal of State Maharashtra by Western Coalfields Limited – Regarding Amendment in EC

[Online Proposal No. IA/MH/CMIN/468509/2024; File No. J11015/299/2010-IA-II(M); Consultant: Central Mine Planning & Design Institute Ltd; NABET/EIA/2124/RA 0258 valid till 22.08.2024]

12.8.1: Mugoli Nirguda Extension Deep OC Mine is an existing coal mine of Western Coalfield Ltd. The mine is located in Mugoli Village, Wani Tehsil, Yavatmal District of Maharashtra State.

12.8.2: Western Coalfields Limited has made an online application vide proposal no. IA/MH/CMIN/468509/2024 dated 06.04.2024 for amendment in Environmental Clearance granted vide letter no. J-11015/299/2010-IA.II(M), dated 11.01.2022. The details of the Amendment sought and justification for the same is as follows:

Specific/ General Condition No.	Details of Conditions	Amendment sought	Justification
Specific Condition (VI)	PP shall transport coal by road only for two years from the date of issue of this letter and accordingly transportation through in-pit conveyor system and by silo loading at Railway siding should be installed (as	PP shall transport coal by road till June'2025 and accordingly transportation through off-pit conveyor system and by silo loading at Railway siding should be installed by June'2025.	The work order for construction of Railway Siding was awarded to RITES with date of commencement of 15.01.2021 with proposed capital investment of Rs 218.31 Crore. The work of construction of Silo Loading system was awarded on 16.02.2022 to contractor M/s Hamtek Technologies India

	proposed) within 2 years		<p>Private Limited with capital investment of Rs 252.61 Crore.</p> <p>The construction of Railway Siding and Silo loading could not be completed within the time limit of contract due to site constraint, removal of overburden, Covid restriction, rainfall, availability of labour with contractor etc.</p> <p>At present the physical progress for work of Railway Siding is 38% and Silo loading system is 27% till 08.03.2024.</p> <p>The tentative timeline for commissioning of Railway Siding along with SILO is proposed to be June, 2025.</p>
Specific Condition (X)	'PP shall install sand/aggregate segregation plant from Overburden (OB) for suitable capacity to extract sand and construction aggregate within 2 years of issue of this letter.	To be removed	<p>The installation of sand segregation plant is not found to be feasible in this project due to low sand content in the overburden and lack of marketability of sand the local market.</p> <p>As per the sand analysis test report, the percentage of sand in overburden is 61.3%. The Sand Segregation plant could be installed in Overburden having high sand content (more than 65%) in order to have techno-commercial viability of segregation from the plant. There are no underground mines in jurisdiction of Wani Area where the segregated sand can be utilized for the purpose of Sand Stowing. The local market of sand is highly dynamic and sale price of sand is also very</p>

			<p>volatile. Thus, the liquidation/selling of sand in local open market becomes very competitive with the dealers /operators of Sand Ghats.</p> <p>The sand content in OB is less than 65% and there is no utility of</p> <p>produced sand, so installation of SSP is not found to be viable.</p>
--	--	--	---

12.8.4: Deliberation by the EAC in the meeting:

PP along with NABET Accredited consultant made a detailed presentation on EC conditions require amendments along with its justification. The Committee deliberated on various aspects of the proposal submitted and the presented made by PP. After detailed deliberation Committee observed the following:

PP has submitted the proposal for amendment in the 2 specific condition of EC dated 11.01.2022.

1. As regards Specific Condition no. (vi), regarding transfer of coal by road only for two years from the date of issue of EC and accordingly transportation through in-pit conveyor system and by silo loading at Railway siding should be installed (as proposed) within 2 years.

The amendment sought by PP is that the PP may be allowed to transport coal by road **till June 2025 and accordingly transportation through in-pit conveyor system and by silo loading at Railway siding should be installed by June 2025.**

The PP submitted that the work order for construction of Railway Siding was awarded to RITES with date of commencement of 15.01.2021 with proposed capital investment of Rs 218.31 Crore. The work of construction of Silo Loading system was awarded on 16.02.2022 to contractor M/s Hamtek Technologies India Private Limited with capital investment of Rs 252.61 Crore. The construction of Railway Siding and Silo loading could not be completed within the time limit of contract due to site constraint, removal of overburden, Covid restriction, rainfall, availability of labour with contractor etc. At present the physical progress for work of Railway Siding is 38% and Silo loading system is 27% till 08.03.2024. The tentative timeline for commissioning of Railway Siding along with SILO is proposed to be June, 2025.

The Committee deliberated on the submission of PP and agreed for the same and accordingly the condition may be read as “PP shall complete the work of Railway Siding, Silo Loading System (SLS) and belt conveyor to transport coal from pit to SLS by June 2025 and till then PP is allowed for the road transportation. PP shall undertake planting of trees along roads to be used for transport during 2024 monsoon season and submit details to RO by October 2024”

2. As regard Specific Condition no. (x), regarding installation of sand/ aggregate segregation plant from Overburden (OB) for suitable capacity to extract sand and construction aggregate within 2 years of issuance of EC.

The amendment sought by the PP is to remove this particular condition. The PP submitted that the installation of sand segregation plant is not found to be feasible in this project due to low sand content in the overburden and lack of marketability of sand in the local market. As per the sand analysis test report, the percentage of sand in overburden is 61.3%. The Sand Segregation plant could be installed in Overburden having high sand content (more than 65%) in order to have techno-commercial viability of segregation from the plant. There are no underground mines in jurisdiction of Wani Area where the segregated sand can be utilized for the purpose of Sand Stowing. The local market of sand is highly dynamic and sale price of sand is also very volatile. Thus, the liquidation/selling of sand in local open market becomes very competitive with the dealers /operators of Sand Ghats. The sand content in OB is less than 65% and there is no utility of produced sand, so installation of SSP is not found to be viable.

The Committee deliberated on the submission of PP and is of the view that PP shall first seek the Comments of State PWD Department on the quality of sand available and whether the same can be used for construction purpose or not. The Committee therefore did not agree with this amendment.

Based on the document submitted and discussion held the Committee **recommended** for amendment in EC for Specific Condition (VI) as mentioned above subject to following condition:

- i) *The other terms and conditions mentioned in earlier ECs and amendment, if any, shall remain same.*

Agenda No 12.9

Proposal for Wet Type Coal Washery Project is for expansion in production capacity from 0.96 MTPA to 3.6 MTPA over an area of 12.30 Ha, located at Village- Baloda, Tehsil-Baloda, District- Jajgir Champa, Chhattisgarh by M/s Radiant Coal Benefication Private Limited-Environmental Clearance Regarding

[Proposal No. IA/CG/CMIN/458804/2024; File No. IA-J-11015/4/2013-IA-II(M); Consultant: GRC India Pvt. Ltd; NABET/EIA/21-24/SA0211 valid up to 15/08/2024]

12.9.1: M/s. Radiant Coal Benefication Pvt. Ltd. has made an application online vide proposal no IA/CG/CMIN/458804/2024 dated 20.02.2024 along with the application in the prescribed format (Form-I), copy of EIA report and approved ToRs as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 2(a) Coal Washery Under Category “A” of the schedule of the EIA Notification, 2006 and does not attract general condition, is being appraised at Central Level as the capacity of the project is 3.6 MTPA

The project of M/s Radiant Coal Benefication Pvt. Ltd. located at Village-Baloda, Tehsil- Baloda, District- Janjgir Champa, Chhattisgarh is for the Expansion of Wet Type Coal Washery Project Based on Heavy Media Cyclone from 0.96 MTPA to 3.6 MTPA. The application was submitted for TOR vide proposal no. IA/CG/CMIN/423824/2023 dated 29th March 2023 and subsequently standard ToR has been granted by the Ministry of Environment, Forests and Climate Change (MoEF&CC) vide IA-J-11015/4/2013-IA-II(M) dated 05.04.2023. The ToR is valid till 04.04.2027.

12.9.2: Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

12.9.2.1: Location: The site and study area falls in the survey of India, Topo Sheet No–F44K8. Lilagar river is flowing about 4.7 km in West direction

iii) Latitude and Longitude of the project:

S.N.	Latitude	Longitude
1	22° 9'21.09"N	82°29'22.07"E
2	22° 9'21.06"N	82°29'19.87"E
3	22° 9'21.14"N	82°29'18.28"E
4	22° 9'22.19"N	82°29'14.67"E
5	22° 9'21.24"N	82°29'13.70"E
6	22° 9'19.25"N	82°29'13.46"E
7	22° 9'16.49"N	82°29'12.53"E
8	22° 9'14.59"N	82°29'12.49"E
9	22° 9'12.81"N	82°29'12.29"E
10	22° 9'10.70"N	82°29'12.40"E
11	22° 9'9.31"N	82°29'12.59"E
12	22° 9'8.87"N	82°29'14.00"E
13	22° 9'7.98"N	82°29'13.92"E
14	22° 9'7.46"N	82°29'15.26"E

15	22° 9'6.77"N	82°29'15.13"E
16	22° 9'5.67"N	82°29'15.67"E
17	22° 9'4.97"N	82°29'19.25"E
18	22° 9'7.05"N	82°29'20.63"E
19	22° 9'9.55"N	82°29'19.60"E
20	22° 9'11.31"N	82°29'23.32"E
21	22° 9'17.10"N	82°29'25.03"E
22	22° 9'18.47"N	82°29'22.15"E
23	22° 9'20.91"N	82°29'22.83"E
24	22° 9'27.71"N	82°29'12.16"E
25	22° 9'28.35"N	82°29'12.55"E
26	22° 9'28.11"N	82°29'13.04"E
27	22° 9'31.61"N	82°29'14.09"E
28	22° 9'32.73"N	82°29'10.02"E
29	22° 9'31.42"N	82°29'9.52"E
30	22° 9'30.97"N	82°29'11.66"E
31	22° 9'28.09"N	82°29'9.65"E
32	22° 9'26.65"N	82°29'11.77"E

iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January, 2010 has imposed moratorium on the grant of Environment Clearance.

12.9.2.2: Forest Area: The Project does not involve Forest Area

12.9.2.3: Protected Area: PP reported that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. PP submitted that there are 2 Schedule 1 species i.e. Indian Peafowl and Indian Monitor lizard found in the 10 km area. The conservation plan has been prepared and submitted to PCCF for approval on 25/02/2023. PP has earmarked a budget of Rs 5.5 Lakh for the same. There is no violation of WLP, Act, of 1980.

12.9.2.4: Prior Approvals: PP reported that Environmental Clearance had been obtained for the existing plant from SEIAA, Chhattisgarh, vide letter.No. 345/SEIAA-CG/EC/Coal Washery/Janj Champa/790 dated 18.07.2017 to M/s Hind Energy and Coal Benefication (India) Limited EC was transferred to M/s Radiant Coal Benefication Pvt. Ltd on 19/01/2024

12.9.2.5: Type of Project –PP Submitted the following details w.r.t washery:

- i) Expansion of Wet Type Coal Washery Project Based on Heavy Media Cyclone from 0.96 MTPA to 3.6 MTPA by M/s Radiant Coal Benefication Pvt. Ltd. located at Village-Baloda, Tehsil- Baloda, District- Janjgir Champa, Chhattisgarh.
- ii) The project site is located at the distance of about 2 km towards South from NH-130A.
- iii) The nearest village is Thadgabahra, which is located about 0.9 km West direction. The nearest railway station is Kapan which is located at about 13.5 km in South direction.
- iv) Capacity of Coal washery: 3.6 MTPA
- v) Increase in area from 5.91 Ha to 12.30 Ha.
- vi) Type of Coal Washery: Wet Process (Heavy Media Cyclones)
- vii) Method of Disposal of Washery reject: Not Applicable as it's a coal washery project.
- viii) Mode of transportation of raw coal, reject and washed coal:

- a) The ROM coal from the Gevra Mines, located within approx. 33 km from washery, Kusmunda Mines, located within 40 km from Washery and Dipika Mines located 33 km away from Washery will be transported maximum by road.
- b) Washed Coal will be transported by Road from Washery to 18 km Akaltara CCEPL Railway siding then to End User by Indian Railway network.
- c) Washery rejects from the plant will be transported by road in covered trucks directly to the nearby power plants by road (For short distance delivery).
- d) Reject Coal will be transported by Road from Washery to 18 km Akaltara CCEPL Railway siding then to End User by Indian Railway network. (For long distance delivery).
- e) **Details of Land usage:** PP submitted that the Existing Plant area is 5.91 ha, the area required for expansion is 6.39 ha and the total Plant area will be 12.30 ha.

Sl. No.	Details	Area in Ha	% w.r.t. Total Area
1.	Washery Area	3	24
2.	Raw Coal Stockyard	1.04	8

3.	Clean Coal Stockyard	1.5	12
4.	Reject Storage Area	1	8
5.	RWH Area	0.7	6
6.	Other Facilities-Office Building, internal roads, weight bridge, water reservoir, canteen, Labourers, Parking area	1	8
7.	Greenbelt	4.06	33
Total		12.30	100

12.9.2.6: Legal Issues/ Violation: PP reported that there is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

12.9.2.7: Water Requirement: PP submitted that the one-time water requirement for the project is 11,430 KLD out of which 430 KLD will be the losses. Further, 40 KLD of water is required (10 KLD-Dust suppression; 15 KLD -road sprinkling; 15 KLD - Plantation and 10 KLD-Domestic Use). PP submitted that the make-up water requirement is 480 KLD. PP submitted that water will be sourced from the groundwater and NOC has been obtained vide NOC no. CGWA/NOC/IND/REN/2/2022/7041 valid up to date 02.05.2025. (to, M/s. Hind Energy and Coal Benefication (I) Ltd.) for 480 KLD water.

12.9.2.8: Certified Compliance Report: PP submitted that vide letter dated 4/09/2023 a request was made to the concerned RO of MoEF&CC for the compliance report. Further, pursuant to the Ministry's OM 8.06.2022 a site inspection was done by SPCB on 10/10/2023 for compliance of EC conditions.

12.9.2.9: Baseline Data: Environmental Baseline data has been collected during 1st Dec 2022 to 28th Feb, 2023 (Winter Season)

Period	Winter season 1 st Dec 2022 to 28 th Feb, 2023
AAQ parameters at 8 Locations (min and max)	During the study, PM10 was observed in the range of 67.5–89 µg/m ³ , which is well within the prescribed standard limit (PM10 = 100 µg/m ³). PM2.5 was observed in the range of 33.1-46.4 µg/m ³ , which is well within the standard limit (PM2.5 = 60 µg/m ³). SO ₂ concentration was observed in the range of 6.8 - 9.9 µg/m ³ , which is well within the standard limit (SO ₂ = 80µg/m ³). NO ₂ concentration was observed in the range of 13.3-27.4 µg/m ³ , which is well within the standard limit (NO ₂ = 80µg/m ³). CO concentration was observed in the range of 750-1180 µg/m ³ , which is well within the standard limit (CO= 4000 µg/m ³).
Incremental GLC Level	PM10 is 2.08 µg/m ³ & PM 2.5 is 0.828 µg/m ³ (About 500 m SSW direction)
Groundwater quality at 8 Locations	pH was observed in the range of 7.16–7.31 which meets with desirable norms. Total dissolved solids were recorded in the range of 720 to 750 mg/L. Total hardness was in the range of 360-378 mg/L. Total Alkalinity was found in the range of 283-296 mg/L. Iron was found in the range of 0.21-0.36 mg/L. As microbiological parameters MPN analysis was also carried out and it was less than detectable value.
Surface water quality at 8 Locations	pH of the samples was found in the range of 7.43-7.89. TDS analysis was also carried out for surface water samples and it was found in the range of 347-540 mg/L. DO measured during analysis was found in the range of 4.6-6.5 mg/L. COD measured during analysis was found in the range of 8.8-18.3 mg/L. BOD measured during analysis was found in the range of 2.4-4.4mg/L. MPN test was also carried out for this surface water sample and it was found positive. It indicates towards the fecal contamination in the surface water body.
Noise levels Leq (Day and Night) 6 locations	The noise levels in the area varies from 43.7 to 73.7 dBA during day time and 31.9 to 68.4 dBA during the night day.

12.9.2.10: EMP Cost: The budget earmarked for EMP is Rs. 400 Lakhs (Capital) and Rs 172.5 Lakhs (Recurring).

S.No.	Activity	Capital Cost (Lakhs)	Recurring Cost (Lakhs/Annum)
1	Air Pollution Control Measures	165	38
	➤ DES and Bag House in crusher house	62	6
	➤ Fixed Water sprinklers	35	5
	➤ Mobile water sprinklers	20	4
	➤ Enclosures to belt conveyors	18	5
	➤ Asphalted internal roads	15	8
	➤ Rain gun	15	10
2	Water pollution control measures	145	45
	➤ Closed water Circuit , Thickener	80	28
	➤ Storm water drains	20	5
	➤ Sewage Treatment Plant	30	10
	➤ Piezometer to monitor ground water level	10	2
3	Green belt development	20	6
4	Occupational Health & Safety	30	7
	➤ Provision of PPE	15	3.5
	➤ Medical examination	15	3.5
5	Environment Management Cell	20	8
6	Environmental Monitoring	20	5
7	Risk Mitigation Measures	0	2.5

8	CER Budget	0	46
	EMP during construction stage	0	15
Total		400	172.5

12.9.2.11: Public Hearing details: PP submitted that a Public hearing notice was published on 25.06.2023 in a prominent newspaper namely *The Daily Pioneer* and *Hari Bhoomi*. The public hearing was conducted on 27/07/2023 under the Chairmanship of Mr. S.P. Waid, Additional Collector, District-Janjgir Champa. The major issue raised during PH is Employment for the locals, Air Pollution Control Measures, Water requirements for irrigation, Road Safety Measures, and concern about the health of local people. PP has earmarked an amount of Rs 46 Lakhs for addressing the issues raised during PH.

Sl. No.	Issues raised during PH	Budget
1.	Employment for the locals	Lakhs Stipend – 5 Lakh (Rs. 10,000/- stipend per year to 50 persons for 1 year) Fee – 5.00 Lakh (Rs. 10000/- yearly fee for 50 persons for 1 year)
2.	Air Pollution Control Measures	10 Lakhs 5 Lakhs (500 per Tree for 1000 trees) 5 Lakhs (Installation of Water sprinklers)
3.	Water requirement for irrigation	Rs 8 Lakhs for Construction of RWH structure in Village Baloda.
4.	Road Safety Measures	Rs 10 Lakhs Rs 5 Lakhs for the Traffic Awareness programme will be conducted in Villages, Tadgabahra, Bhilairi and Jharradih. Helmets and first aid kits will be distributed to villagers. Rs 5 Lakhs for the distribution of helmets and First aid kits to 300 people

5.	Concern about the health of local people	8 Lakhs including Rs 4 Lakhs for Conducting Health checkups and Rs 4 Lakhs for Providing Medicines and other health facilities such as Ambulance
----	--	--

12.9.2.12: Project Cost: The total project cost after the proposed expansion facilities will be 23.26 Cr. (Existing Rs. 17.2 Cr + Expansion Rs. 6.06 Cr). About 50 people on a daily wage basis will get employment during the construction stage. A total of 135 persons (existing + expansion) will be employed during the operational phase, in the skilled, semi-skilled and unskilled category. The preference will be given to the local population for employment in the semi-skilled and unskilled category.

12.9.2.13: Affidavit & Undertaking: PP also submitted an affidavit dated 23/02/2024 to the effect that no construction was done without deviation of EC dated 18/072017, there is no litigation pending, the land is in possession of the company, there is no deviation in data submitted.

12.9.3: Committee after deliberations noted the following:

The Proposal for Wet Type Coal Washery Project is for expansion in production capacity from 0.96 MTPA to 3.6 MTPA over an area of 12.03 Ha, located at Village- Baloda, Tehsil-Baloda, District- Jajgir Champa, Chhattisgarh by M/s Radiant Coal Benefication Private Limited is for grant of EC. The proposal was earlier considered in 8th EAC, held on 29th February 2024 wherein the Committee deferred the proposal for want of additional information. PP submitted the reply on Parivesh Portal on 22.05.2024 and the proposal is now placed in 12th EAC meeting held on 5-6 June 2024. The reply submitted by the PP is as follows:

S. No.	Observations	Reply
13.	As observed in other projects by the same PP, the Committee viewed the KML file and photographs of the plant site of this project also and is of the view as to why coal dust is visible outside the project area. The PP informed that it is the adjacent Coal Washery due which coal dust is seen outside the project area. As desired by the Committee PP also showed the green belt on KML file. The Committee	We will provide dust suppression systems on the open coal yards and internal roads by using the treated water from proposed STP during expansion. We will explore the possibilities to use treated sewage water /treated effluent from the nearby industries also. Dust suppression is being done and same will be followed after expansion on coal yards, on internal roads and

	<p>is of the view that PP shall install a rain gun and wash the trees regularly in this project also as advised in the other project. Further, the Committee is of the view that PP shall also carry out regular water spraying in and around the project site and increase the green belt area. A plan to this effect should be submitted.</p>	<p>transportation route which connects the project site and NH-130A on regular basis. Measures such as regular watering, pruning, and cleaning of leaves will be done using mobile tankers with high-pressure pumps. PP submitted an Affidavit in this regard.</p>
<p>14.</p>	<p>The Committee also deliberated on the transportation route and is of the view that PP shall submit the cumulative GLC and traffic study of both of these projects of PP.</p>	<p>Cumulative Impact Assessment (CIA) has been done considering the emission from both coal washery projects including traffic emission.</p> <p>Air quality modeling has been performed using model AERMOD and cumulative incremental GLC value for PM10, PM2.5, SO2, NO2 & CO are 3.56 µg/m³, 2.37 µg/m³, 0.46 µg/m³, 8.59 µg/m³, & 0.19 µg/m³ respectively.</p> <p>Detailed study including isopleths is submitted by PP.</p> <p>Traffic study with volume count was carried out for 24 hours on working day at Hazari Bazar Road and NH-130A.</p> <p>It is envisaged that there will be overall increase in existing traffic load. The additional no. of trips per day after proposed project will be 72 PCU/hr. hence, the additional load on the carrying Capacity of the concern roads is not likely to have a drastic change in the LOS value. Therefore, LOS value will be remain same after considering additional traffic due to project.</p>

		<p>The LOS for NH-130A & Hardi Bazar Road during operation phase will remain same i.e., "Good".</p> <p>PP also submitted detailed Traffic study report.</p>
15.	<p>The Committee observed that PP has approached the concerned RO of MoEF&CC for CCR but the inspection could not be done within the stipulated timeline. Therefore, PP has approached the concerned SPCB for the same, according to the Ministry's O.M 8.06.2022. The site was inspected by the Regional Officer, SPCB on 10/10/2023, as per the inspection report, PP has installed the bag filter, provided water spraying arrangement, transportation is by covered trucks, etc. There are no adverse comments about the compliance of EC Conditions. However, it has been mentioned that for the treatment of domestic waste septic tank is used. The Committee is of the view that PP shall install a STP for the same. As the inspection report was recorded in Hindi, Committee asked PP to submit a self-compliance report in English. The Committee also asked for geo tagged photographs of Air & Water Control Pollution Devices. Further, it is observed that in the CCR date of grant of EC is mentioned as 18.07.2027 in place of 18.07.2017, PP shall verify the same.</p>	<p>We would like to inform you that Environmental Clearance had been obtained for the existing plant from SEIAA, Chhattisgarh, vide S.No. 345/SEIAA-CG/EC/Coal Washery/Janj Champa/790 dated 18.07.2017 and copy of the same is submitted for reference.</p> <p>PP submitted the self-compliance report. PP further submitted that STP will be provided after expansion in place of septic tanks.</p> <p>PP also submitted Geo tagged photographs of Air & Water Control Pollution Devices.</p>
16.	<p>The Committee is of the view that PP shall monitor the heavy metal in the water samples and install the piezometers for regular monitoring of groundwater level.</p>	<p>We are in process of installation of piezometers for regular monitoring of groundwater level at one point upstream and at one point downstream of ground water flow. We are also in process of finalizing</p>

		<p>vendor and same will be done before EAC meeting.</p> <p>Ground water has been tested at eight locations for heavy metals (Cu, Mn, B, Zn, As, Cd etc) during the study period by accredited laboratory. All parameters are well within the limit as prescribed by the norms. Water testing reports are submitted.</p>
17.	The Committee observed that as per DSS there is no forest land within the project boundary. However, PP is required to submit the certificate in this regard from the concerned authority.	The existing plant is over 5.91 ha or 14.60 acres and for the expansion project 6.39 ha or 15.79 acres is required. Thus, total land required is 12.30 ha after expansion. There is no forest land involved within the project site. PP submitted the NOC from Divisional Forest officer.
18.	As per the discussion held during the meeting regarding SDGs, PP was asked to submit a concept note on the SDGR. Further, the Committee reiterated that to achieve the SDGs Goal PP shall explore the possibilities for the reduction of specific diesel consumption by deploying the e-vehicles/LNG/CNG-based trucks, installing solar lights in the plant and outside the plant premises on roads, using auto power cut-off system to save electricity, increase plantation & green belt etc.	We will install 25 nos of solar light within plant and outside project premises on roads. Auto power cut-off system will be provided for the plant when the operation is temporarily stopped to save electricity. We shall transition to electric automobiles gradually in phase wise manner. Initially, depending on what is available in the market, we plan to convert 10% of all trucks to electric vehicles. Then, in the future, the number of electric vehicles will progressively expand based on availability. An undertaking regarding the same is also submitted by PP.
19.	The Committee enquired about the validity of NABL certification of the Testing lab for the baseline period.	PP submitted NABL certification of the Testing lab for the baseline period.

20.	<p>The Committee observed that the water requirement is 480 KLD and NOC from CGWA has been obtained for 480 KLD valid till 02.05.2025 but same in the name of the earlier PP i.e., M/s Hind Energy and Coal Benefication (I) Private Limited. Committee is of the view that the PP should submit the copy of NOC in the name of M/s Radiant Coal Benefication Pvt. Ltd. or copy of application submitted to CGWA for transfer of NOC. Further, the project proponents shall explore the possibility of utilization of treated sewage water /treated effluent form the nearby industries, for industrial purpose, in lieu of the ground water.</p>	<p>CGWA NOC vide NOC no. CGWA/NOC/IND/REN/2/2022/7041 dated 07.06.2022 in the name of M/s Radiant Coal Benefication Private Limited. PP submitted the copy of the same.</p>
21.	<p>The project proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. Accordingly, PP shall submit the compliance w.r.t Ministry's OM dated 23/05/2019.</p>	<p>We agreed to reuse internal wastewater to the fullest extent and extract ground water only for the makeup need. As such the specific make up water consumption is expected to be 7.5 l/tonne of coal, which is very less as per the prescribed norms.</p> <p>We agreed to comply with OM dated 23/05/2019.</p> <p>PP also submitted pointwise compliance of all conditions w.r.t OM dated 23/05/2019.</p>
22.	<p>It was also brought to the notice of the Committee that list of annexures and annexures are missing in EIA Report. The Committee is of the view that in case of size restriction if PP is not able to upload the heavy file then annexures can be uploaded in separate file. Therefore, PP shall upload the complete documents.</p>	<p>Agree and will be complied.</p>

<p>23.</p>	<p>Committee is of the view that PP shall show the credible documents with respect to ownership of land. It is suggested that metric system shall be used and area in hectares to be provided after converting the acres. If there are multiple documents, then summary of the same shall be provided along with chronology.</p>	<p>Existing plant is over 5.91 ha or 14.60 acres and total land was under the possession of M/s Hind Energy and Coal Benefication (India) Pvt Ltd. Copy of land documents are submitted.</p> <p>Thereafter, Business agreement was signed between M/s Hind Energy & Coal Benefication (India) Limited & M/s Radiant Coal Benefication Private Limited. Total business transferred to M/s Radiant Coal Benefication Private Limited. PP submitted the copy of agreement.</p> <p>Accordingly, Environmental Clearance transfer has been obtained from SEIAA, Chhattisgarh, vide letter no. 2604/SEIAA, CG/790-II dated 19.01.2024 in favour of M/s Radiant Coal Benefication Pvt. Ltd. Copy of EC transfer is also submitted.</p> <p>Meanwhile, PP registered the Firm M/s Radiant Coal and total land is transferred to M/s Radiant Coal from M/s Hind Energy & Coal Benefication (India) Limited & M/s Clean Coal Enterprises Pvt Ltd by partnership deed. PP submitted the copy of deed.</p> <p>Thereafter, existing land of 5.91 ha or 14.60 acres is taken on lease basis by by M/s Radiant Coal Benefication Private Limited from M/s Radiant Coal. Copy of lease deed is submitted.</p>
------------	--	--

		<p>Additional land of 6.39 ha or 15.79 acres was also taken on lease basis by M/s Radiant Coal Benefication Private Limited from M/s Radiant Coal & M/s Radiant Enterprises. Copy of lease deed is submitted.</p> <p>PP also submitted the Summary of land involved in proposed project (Existing + Expansion).</p>
24.	<p>The Committee observed that budget provision w.r.t issues raised during PH needs to be revised as it is for only 2 years. This should be for 10 years.</p>	<p>Public hearing for our above said project was held on 27.07.2023 Under the chairmanship of Mr. S.P. Waid, Additional Collector.</p> <p>During public hearing, most of the people welcomed the project and raised few points related to generation of Employment for the locals, Water requirement for irrigation, Air Pollution Control Measures, Road Safety Measures, Concern about health of local people.</p> <p>As per MoEF&CC Office Memorandum vide F.No.22-65/2017-IA.III dated. 30th September 2020, budgetary allocation of Rs. 46 Lakhs for commitment made by Project proponent to address the concern raised during public hearing has been fixed.</p> <p>As per the suggestion of Hon'ble EAC budget of PH action plan is increased to 46 Lakhs. PP also submitted the detailed public hearing action plan along with the timeline of 10 years.</p>

25.	Further, there is some budget calculation error. Therefore, the PP shall revisit the issues raised during PH and submit the revised budget. It was informed to the Committee that English translation of PH is provided only. The Committee is of the view that PP shall provide the Hindi signed copy also.	As per MoEF&CC Office Memorandum vide F.No.22-65/2017-IA.III dated. 30th September 2020, budgetary allocation of Rs. 46 Lakhs towards commitment made by Project proponent to address the concern raised during public hearing has been fixed. PP submitted the Revised budget of PH along with PH proceedings.
26.	The Committee observed that there is some calculation error in EMP Budget. Further, considering the above observations (Sl. 1 to 11), PP shall submit the revised EMP budget.	The capital cost for environmental management of the expansion project is estimated to be Rs. 400 lakhs. Rs. 172.5 lakhs per year will be required as annual recurring expenses to meet the recurring expenditure for implementing the measures. PP also submitted the Revised EMP budget.

The PP and NABET Accredited consultant made a detailed presentation and the observation of EAC including previous observations are as follows:

- 1) The project is for expansion in capacity of EC dated 18.07.2017 from 0.96 MTPA to 3.6 MTPA over an area of 12.30 Ha.
- 2) The EC was transferred in the name of M/s Radiant Coal Benefication Pvt. Ltd on 19/01/2024.
- 3) The project does not fall under CPA/SPA.
- 4) The Project does not involve any forest land.
- 5) The Project is not within 10 KM of any PAs.

- 6) Standard ToR was granted on **05.04.2023** which is valid till 04.04.2027.
- 7) Baseline data has been collected from 1st Dec 2022 to 28th Feb, 2023 (Winter Season) and is valid in pursuant to Ministry's OM dated 8/6/2022.
- 8) Notice for PH was issued on 25.06.2023 in a prominent newspaper namely The Daily Pioneer and Hari Bhoomi. The public hearing was conducted on 26/07/2023 under the Chairmanship of Mr. S.P. Waid, Additional Collector, District-Janjgir Champ. The major issue raised during PH is Employment for the locals, Air Pollution Control Measures, Water requirements for irrigation, Road Safety Measures, and concern about the health of local people. PP has earmarked an amount of Rs 23.5 Lakhs for addressing the issues raised during PH. The Committee previously observed that budget provision w.r.t issues raised during PH need to be revised as it is for only 2 years, there were some calculation errors and provide the Hindi copy of the PH proceedings. Therefore, the PP revisit the issues raised during PH and submit the revised budget for 10 years to address these. The PP now submitted the annexure of EIA and revised budget for PH as Rs. 46 Lakh. The Committee also deliberated on the issue raised during PH and noted that the budget proposed now is still very low to address the issues effectively and asked the PP to revise the same. The PP vide letter dated 07.06.2024 submitted that the budget is revised from Rs 46 Lakhs to 1.0 Cr Lakh for 10 years and Rs 10 Lakh as recurring cost for 10 years. The details of the same are as under:

S. N o.	Issue Raised during PH	Physical activity and action plan	Budget	2024-26	2026-28	2028-30	2030-32	2032-34
1.	Employment for the locals	Willing and employable youths will be identified in consultation with gram panchayat of Tadgabahra, Bhilairi and Jharradih. They will be provided training for trades namely electrician, fitters, welders, painters, and civil	40 Lakhs Stipend – 20 Lakh (Rs. 40000/- stipend per year to 50 persons for 1 year) ITI Fee – 20 Lakhs (Rs. 40000/- yearly fee for 50 persons	8 Lakhs	8 Lakhs	8 Lakhs	8 Lakhs	8 Lakhs

		construction work, etc. After successful completion of training, the youths will be offered employment in suitable company in grade.	for 1 year)					
2.	Air Pollution Control Measures	Tree plantation (2000 trees) will be done in nearby villages Tadgabahra, Bhilairi and Jharradih, on both sides of Hardi Bazar road and near to water reservoir)	25 Lakhs 10 Lakhs (500 per Tree for 2000 trees)	5 Lakhs 2 Lakhs (For 100 Trees in Village Tadga bahra, 100 trees near to reservoir and 200 trees on Hardi Bazar Road)	5 Lakhs 2 Lakhs (For 100 Trees in Village Bhilairi, 100 trees near to reservoir and 200 trees on Hardi Bazar Road)	5 Lakhs 2 Lakhs (For 100 Trees in Village Jharradih, 100 trees near to reservoir and 200 trees on Hardi Bazar Road)	5 Lakhs 2 Lakhs (For 100 Trees in Village Tadga bahra, 100 trees near to reservoir and 200 trees on Hardi Bazar Road)	5 Lakhs 2 Lakhs (For 100 Trees in Village Tadga bahra, 100 trees near to reservoir and 200 trees on Hardi Bazar Road)
		Regularly mobile water sprinkling	15 Lakhs (Regularly mobile water sprinkling)	3 Lakhs (Regularly mobile water sprinkling)	3 Lakhs (Regularly mobile water sprinkling)	3 Lakhs (Regularly mobile water sprinkling)	3 Lakhs (Regularly mobile water sprinkling)	3 Lakhs (Regularly mobile water sprinkling)
3.	Water requirement for irrigation	Construction of RWH structure in Village Baloda.	10 Lakhs	10 Lakhs	--	--	--	--

4.	Road Safety Measures	<p>Traffic Awareness programme will be conducted in villages Tadgabahra, Bhilairi and Jharradih.</p> <p>Installation of convex mirror (20 nos.), speed beaker (20 nos.) and traffic signal (20 nos) on Hardi Bazar Road.</p> <p>Maintenance of Hardi Bazar road</p>	<p>15 Lakhs</p> <p>4 Lakhs</p> <p>3 Lakhs</p> <p>8 Lakhs</p>	<p>3 Lakhs</p> <p>0.8 Lakhs</p> <p>0.6 Lakhs</p> <p>1.6 Lakhs</p>	<p>3 Lakhs</p> <p>0.8 Lakhs</p> <p>0.6 Lakhs</p> <p>1.6 Lakhs</p>	<p>3 Lakhs</p> <p>0.8 Lakhs</p> <p>0.6 Lakhs</p> <p>1.6 Lakhs</p>	<p>3 Lakhs</p> <p>0.8 Lakhs</p> <p>0.6 Lakhs</p> <p>1.6 Lakhs</p>	<p>3 Lakhs</p> <p>0.8 Lakhs</p> <p>0.6 Lakhs</p> <p>1.6 Lakhs</p>
5.	Concern about health of local people	<p>Conducting Health checkup annually in Villages Tadgabahra, Bhilairi and Jharradih</p>	<p>10 Lakhs</p> <p>Conducting Health checkup annually in Villages</p>	<p>2 Lakhs</p> <p>Health checkup annually</p>	<p>2 Lakhs</p> <p>Health checkup annually in Village</p>	<p>2 Lakhs</p> <p>Health checkup annually</p>	<p>2 Lakhs</p> <p>Health checkup annually</p>	<p>2 Lakhs</p> <p>Health checkup annually</p>

e		Tadgabaha, Bhilairi and Jharradi-	in Villages Tadgabhara :	s Tadgabaha: Rs. 1 Lakhs	ually in Villages Bhilair : Rs. 1 Lakhs	ually in Villages Bhilair: Rs. 1 Lakhs	in Village Jharradih: Rs. 1 Lakhs
		Rs. 5 Lakhs Distribution of Medicines and other health facilities such as Ambulance: - Rs. 5 Lakhs	Rs. 1 Lakhs Distribution of Medicines and other health facilities such as Ambulance:- Rs. 1 Lakhs	Rs. 1 Lakhs Distribution of Medicines and other health facilities such as Ambulance:- Rs. 1 Lakhs	Rs. 1 Lakhs Distribution of Medicines and other health facilities such as Ambulance:- Rs. 1 Lakhs	Rs. 1 Lakhs Distribution of Medicines and other health facilities such as Ambulance:- Rs. 1 Lakhs	Rs. 1 Lakhs Distribution of Medicines and other health facilities such as Ambulance:- Rs. 1 Lakhs
	Total	100 Lakhs	28 Lakhs	18 Lakhs	18 Lakhs	18 Lakhs	18 Lakhs

The Committee is of the view that PP shall upload the entire information on Parivesh also after uploading of the MoM.

- 9) The Committee previously viewed the KML file and photograph of the plant site and is of the view as to why the coal dust is visible outside the project area. The PP informed that it is adjacent to the other Coal Washery of the same PP and due to this coal is seen outside the project area. As desired by the Committee, PP showed the green belt on the KML file and also informed that a wind barrier has been provided as required by SPCB. The Committee is of the view that PP shall install a rain gun and wash the trees regularly. Further, the Committee is of the view that PP shall also carry out regular water spraying in and around the project site and also increase the green belt. A plan to this effect should be submitted. The PP in its ADS reply submitted that "We will provide dust suppression systems on the open coal yards and internal roads by using the treated water from proposed STP during expansion. We will explore the possibilities to use treated sewage water /treated effluent from the nearby industries also. Dust suppression is being done and the same will be followed after expansion on coal yards, internal roads and

transportation routes which connect the project site and NH-130A on regular basis. Measures such as regular watering, pruning, and cleaning of leaves will be done using mobile tankers with high-pressure pumps". PP also submitted an undertaking for the same. *The Committee observed that in the undertaking PP submitted that water will be sprayed once in day. The Committee is of the view that this is not sufficient and PP shall do water spraying at regular intervals to control the fugitive dust emission and a log of water tanker needs to be maintained. The water should have GPS fitted in and record of trips with GPS track needs to be maintained. The Committee also observed that the budget proposed (Rs 15 Lakh) for the installation of the rain gun is very low and PP should submit the revised budget.* PP vide letter dated 7.6.2024 submitted that the Capital cost for installation of Raingun is increased to INR 25 Lakh and Rs. 10 lakh/year as annual recurring expenses under EMP budget. PP also submitted an undertaking in this regard.

The Committee is of the view that as per photographs it seems that these are fixed types units and PP shall deploy mobile rain gun/fog cannon for the same. Further, for water spraying on road, PP shall use separate water tankers for both projects. PP vide letter dated 07.06.2024 also submitted an undertaking that they will use the separate water tanker for both projects.

- 10) The Committee observed that there are gaps in the plantation as visible from the photos shown by the PP. The Committee therefore asked the PP to submit the revised plantation budget and the plantation should be completed within one year. The Committee also suggested that PP shall also propose for Miawaki Plantation in 1 Ha area.

PP vide letter dated 07.06.2024 submitted that more than 33% greenbelt has been developed for the existing project i.e. 2 ha and an additional 2.10 ha area will be developed for the expansion project. Hence, the total green area after expansion will be 4.059 ha. Plantation work will be completed by 2024-2025. Nos. of Trees already planted is 5,027, Nos. of Trees required to be planted for expansion = $2.10 \times 2,500 = 5,250$, As per the suggestion of Hon'ble EAC, we proposed additional Plantation i.e. 500 Nos trees within the project. Hence, the Total Nos. of trees to be planted for expansion = $5,250 + 500 = 5,750$. A list of tree species to be planted is submitted. The Total Budget for the Plantation is INR 30 Lakh as Capital Cost and Rs. 20 Lakh as annual recurring Cost for three years.

PP also proposed that an additional 2000 nos of trees will be planted. 1000 no's trees will be planted on both sides of the transportation route, 500 no's trees near school premises and 500 no's trees near the water reservoir. The total Budget for the additional Plantation is INR 10 Lakh as Capital Cost and Rs. 2.5 Lakh as annual recurring Cost for three years. PP also proposed for Miyawaki Plantation in 1 Ha area. PP also submitted an undertaking in this regard.

- 11) The Committee previously deliberated on the transportation route, and is of the view that PP shall submit the cumulative GLC and traffic study of both of these projects of PP. The PP in its ADS reply submitted that “Cumulative Impact Assessment (CIA) has been done considering the emission from both coal washery projects including traffic emission. Air quality modeling has been performed using model AERMOD and cumulative incremental GLC value for PM10, PM2.5, SO2, NO2 & CO are 3.56 µg/m³, 2.37 µg/m³, 0.46 µg/m³, 8.59 µg/m³, & 0.19 µg/m³ respectively. Traffic study with volume count was carried out for 24 hours on working day at Hazari Bazar Road and NH-130A. It is envisaged that there will be overall increase in existing traffic load. The additional no. of trips per day after proposed project will be 72 PCU/hr. hence, the additional load on the carrying Capacity of the concern roads is not likely to have a drastic change in the LOS value. Therefore, LOS value will remain same after considering additional traffic due to project. The LOS for NH-130A & Hardi Bazar Road during operation phase will remain same i.e., “Good”. The Committee deliberated on the same and is of the view that PP shall also plant trees along the road side in transportation route. PP vide letter dated 7.6.2024 proposed that an additional 2000 no’s of trees will be planted. 1000 no’s trees will be planted on both sides of the transportation route, 500 no’s trees near school premises and 500 no’s trees near the water reservoir. The total Budget for the additional Plantation is INR 10 Lakh as Capital Cost and Rs. 2.5 Lakh as annual recurring Cost for three years.
- 12) The Committee previously observed that PP has approached the concerned RO of MoEF&CC for CCR but the inspection could not be done within the stipulated timeline. Therefore, PP has approached the concerned SPCB for the same, according to the Ministry’s O.M 8.06.2022. The site was inspected by the Regional Officer, SPCB on 10/10/2023, as per the inspection report, PP has installed the bag filter, provided water spraying arrangement, transportation is by covered trucks, etc. There are no adverse comments about the compliance of EC Conditions. However, it has been mentioned that for the treatment of domestic waste septic tank is used. The Committee is of the view that PP shall install a STP for the same. As the inspection report was recorded in Hindi, the Committee asked PP to submit a self-compliance report in English. The Committee also asked for geo-tagged photographs of Air & Water Control Pollution Devices. PP submitted the Self-compliance report and informed that STP will be provided after expansion in place of septic tanks. PP also submitted the Geo-tagged photographs of Air & Water Control Pollution Devices.
- 13) The Committee is of the view that PP shall monitor the heavy metal in the water samples, and install the piezometers for regular monitoring of groundwater level. PP in its ADS reply submitted that “We are in process of installation of piezometers for

regular monitoring of groundwater level at one point upstream and at one point downstream of ground water flow. We are in process of finalizing vendor and same will be done before EAC meeting. Ground water has been tested at eight locations for heavy metals (Cu, Mn, B, Zn, As, Cd etc) during the study period by accredited laboratory. All parameters are well within the limit as prescribed by the norms". PP also submitted Water testing reports. PP also showed the photographs of the water level monitoring unit. Further, concerning monitoring of the heavy metals in groundwater, the Committee asked the PP to submit the frequency of monitoring. In this regard, PP vide letter dated 07.06.2024 submitted that the same shall be done twice/year and the report shall be submitted along with six monthly compliance reports to the concerned RO.

- 14) In the last meeting, PP was asked to submit a concept note on the SDGR. Further, the Committee reiterated that to achieve the SDGs Goal, PP shall explore the possibilities for the reduction of specific diesel consumption by deploying the e-vehicles/LNG/CNG-based trucks, installing solar lights in the plant and outside the plant premises on roads, using auto power cut-off system to save electricity, increase plantation & green belt etc. In this regard the PP in its ADS reply submitted that "We will install 25 nos of solar lights within the plant and outside the plant premises on roads. Auto power cut-off system will be provided for the plant when the operation is temporarily stopped to save electricity. We shall transition to electric automobiles gradually in phase wise manner. Initially, depending on what is available in the market, we plan to convert 10% of all trucks to electric vehicles. Then, in the future, the number of electric vehicles will progressively expand based on availability". PP also submitted an undertaking in this regard. The Committee further deliberated on this issue and emphasized on the use of cleaner fuel for transportation. PP vide letter dated 7.6.2024 submitted that initially, depending on what is available in the market, we will try to convert 20% of all trucks to electric vehicles. Then, in the future, the number of electric vehicles will progressively expand based on availability. In addition to this PP also submitted that we will install common solar grid panels of 2 MW for both projects. The total Budget for the solar grid is approx. INR 7 Cr as Capital Cost for both projects.
- 15) The Committee previously enquired about the validity of NABL certification of the Testing lab for the baseline period. PP in its ADS reply provided the same.
- 16) The Committee previously observed that the water requirement is 480 KLD and NOC from CGWA has been obtained for 480 KLD valid till 02/05/2025 but same is in the name of the earlier PP i.e. M/s Hind Energy and Coal Benifcation (I) Limited. Committee is of the view that the PP should submit the copy of NOC in the name of M/s Radiant Coal Benefication Pvt. Ltd. or copy of application submitted to CGWA

for transfer of NOC. Further, the project proponents shall explore the possibility of utilization of treated sewage water /treated effluent from the nearby industries, for industrial purpose, in lieu of the ground water. PP in ADS reply submitted that CGWA NOC has been obtained vide NOC no. CGWA/NOC/IND/REN/2/2022/7041 dated 07.06.2022 in the name of M/s Radiant Coal Benefication Private Limited. PP vide letter dated 07.06.2024 submitted that CGWA NOC is valid till 02.05.2025.

- 17) The Committee previously asked that project proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. Accordingly, PP shall submit the compliance w.r.t Ministry's OM dated 23/05/2019. PP in ADS reply submitted that "We agreed to reuse internal wastewater to the fullest extent and extract ground water only for the makeup need. As such the specific make up water consumption is expected to be 7.5 l/tonne of coal, which is very less as per the prescribed norms. We agreed to comply with OM dated 23/05/2019". PP also submitted pointwise compliance of all conditions w.r.t OM dated 23/05/2019. The Committee observed that PP submitted that they had obtained CGWA NoC, installed piezometers, conducted a hydrogeological study and also explore the possibility of utilising the water from the industries within 10 KM of area. The Committee is of the view that PP shall within 6 months submit the detail of the industry they have identified for the same and the amount of water proposed to be used, to the concerned RO. The Committee observed that previously PP proposed for septic tank but now proposed for installation on a STP to treat domestic sewage.
- 18) The Committee previously asked that PP shall show credible documents with respect to ownership of land. It is suggested that metric system shall be used and area in hectares to be provided after converting the acres. If there are multiple documents, then summary of the same shall be provided along with chronology. PP vide letter dated 07.06.2024 submitted that *"existing plant is over 5.91 ha or 14.60 acres and total land was under the possession of M/s Hind Energy and Coal Benefication (India) Pvt Ltd. Thereafter, Business agreement was signed between M/s Hind Energy & Coal Benefication (India) Limited & M/s Radiant Coal Benefication Private Limited. Total business transferred to M/s Radiant Coal Benefication Private Limited. Accordingly, Environmental Clearance transfer has been obtained from SEIAA, Chhattisgarh, vide letter no. 2604/SEIAA, CG/790-II dated 19.01.2024 in favour of M/s Radiant Coal Benefication Pvt. Ltd. Meanwhile, PP registered the Firm M/s Radiant Coal and total land is transferred to M/s Radiant Coal from M/s Hind Energy & Coal Benefication (India) Limited & M/s Clean Coal Enterprises Pvt Ltd by partnership deed. Thereafter, existing land of 5.91 ha or 14.60 acres is taken on lease basis by M/s Radiant Coal Benefication Private Limited from M/s Radiant Coal. Additional land of 6.39 ha or 15.79 acres was also taken on lease basis by M/s Radiant Coal Benefication Private Limited from M/s Radiant Coal"*

& M/s Radiant Enterprises”. The committee observed that the lease is only for 10 years for existing (from 19.12.2022) and for additional (from 24/05/2023). The Committee also observed that the additional land requirement is 6.39 ha which comes out to be 15.81 acres. The Committee noted that as per the lease document, it is 15.81 acres for 10 years from 24.05.2023. *The Committee is of the view that although the validity of EC is as per the Ministry’s OM dated 13/12/2022 but still for further operation PP should have a valid lease.*

- 19) The Committee previously noted that annexures are missing in the EIA Report. The Committee was of the view that in case of size restriction if PP is not able to upload the heavy file then annexures can be uploaded in separate file. Therefore, PP shall upload the complete documents. PP while submitting the ADS reply uploaded the same on Parivesh.
- 20) The Committee previously observed that there was some calculation error in EMP Budget and asked for the revised EMP budget. PP in ADS reply submitted that the capital cost for environmental management of the expansion project is estimated to be Rs. 400 lakhs and Rs 138.5 lakhs per year will be required as annual recurring expenses to meet the recurring expenditure for implementing the measures. The Committee also deliberated on the EMP and is of the view that considering the above suggestion PP shall submit the revised EMP budget. PP vide letter dated 07.06.2024 submitted following EMP cost as per which Rs 465 Lakh (Capital) and Rs 172.5 Lakh/annum (recurring).

S. No	Activity	Capital Cost (Lakh)	Recurring expenses proposed/ annum (Lakhs)
1	Air Pollution Control Measures	175	38
	➤ DES and Bag House in crusher house	62	6.0
	➤ Fixed Water sprinklers	35	5.0
	➤ Mobile water sprinklers	20	4.0
	➤ Enclosures to belt conveyors	18	5.0
	➤ Asphalted internal roads	15	8.0

	➤ Rain gun	25	10
2	Water pollution control measures	155	43
	➤ Closed water Circuit, Thickener	80	28
	➤ Storm water drains	25	5.0
	➤ Sewage Treatment Plant	40	8
	➤ Piezometer to monitor ground water level	10	2
3	Green belt development	30	21
4	Occupational Health & Safety	30	7.0
	➤ Provision of PPE	15	3.5
	➤ Medical examination	15	3.5
5	Environment Management Cell	20	10
6	Environmental Monitoring	20	13.5
7	Risk Mitigation Measures	--	15
8	PH Budget	35	10
9	EMP during construction stage	--	15
Total		465	172.5

The Committee noted that in above table at S. No-8, INR 35 Lakh is taken from public hearing action plan budget. Further, in addition to the above mentioned EMP budget, additionally PP proposed INR 10 lakh as capital cost and INR 2.5 lakh as recurring cost for tree plantation outside the plant premises i.e. transportation route, near the reservoir and school.

Based on the discussion held and the document submitted the Committee **recommended the proposal for grant of EC** for expansion in production capacity **from 0.96 MTPA to 3.6 MTPA** (over an area of 12.30 Ha), of Wet Type Coal Washery Project, located at Village-Baloda, Tehsil-Baloda, District-, Janjgir Champa, Chhattisgarh by M/s Radiant Coal Beneficiation Private Limited as per the provision of EIA Notification 2006

(as amended) subject to compliance of standard EC conditions and following specific conditions:

- 1) PP to obtain the CTO for 3.6 MTPA capacity after the grant of EC.*
- 2) PP shall develop a green belt in an area of 4.059 Ha (i.e., more than 33% of the project area; 5750 plants) during 2024-25 after the grant of EC. The budget earmarked for plantation is Rs 30 Lakh (Capital) and Rs. 21 Lakh (recurring Cost).*
- 3) PP shall also plant 2000 nos of trees (1000 no's trees will be planted on both sides of the transportation route, 500 no's trees near school premises and 500 no's trees near the water reservoir). The total Budget for the additional Plantation is INR 10 Lakh as Capital Cost and Rs. 2.5 Lakh as annual recurring Cost for three years. In addition to this (beyond 3 years) PP must also carry out plantation drives (fruit-bearing trees, local species etc) with its proper maintenance in nearby villages by seeking consent of gram panchayat and villagers and a proper record must be maintained and furnished to RO with six monthly compliances.*
- 4) PP shall develop Miyawaki Plantation in the 1 Ha area.*
- 5) The budget earmarked for the green belt, plantation inside and outside the plant area, along the transportation route, and Miyawaki Plantation area shall be kept in a separate account and audited annually. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs (before & after with geolocation date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC and on PARIVESH Portal as the case may be for the activities carried out during previous year.*
- 6) PP shall prepare and design the layout of washery in such a way that least number of already existing tree is cut and accordingly approval of DFO shall be obtained before cutting of trees.*
- 7) PP shall construct a 20 ft height wind barrier with galvanized/metal sheet all around the boundary of the washery and install fixed-type water sprinkler all along the boundary wall. In addition to this PP shall deploy mobile rain gun/fog cannon for washing of the trees and the budget proposed for the same is Rs 25 Lakh (Capital) and Rs. 10 lakh/year (Recurring).*
- 8) PP shall provide dust suppression systems on the open coal yards and internal roads by using the treated water from proposed STP during expansion. In addition to this PP shall ensure that regular water spraying shall be done on transportation route (including Hazari Bazar Road and NH-130A or any other place within 2km of the plant site). A log of the water tanker needs to be maintained. The water tanker should be fitted with a GPS Tracker and a record of trips with GPS track needs to be maintained. PP shall purchase a separate water tanker for this project.*

- 9) *PP shall install common solar grid panels of 2 MW for both projects. The total Budget for the solar grid is approx. INR 7 Cr as Capital Cost for both projects. In addition to this Auto power cut-off system shall be provided for the plant when the operation is temporarily stopped to save electricity.*
- 10) *PP shall replace the existing fleet with e-vehicles/LNG/CNG-based trucks for the transportation of coal and 20% of the same shall be replaced within one year. Additionally, water spraying shall be done on regular basis inside and around (2 KM) the project area on a regular interval and a log book should be maintained for the same.*
- 11) *All the roads proposed to be constructed inside and around the periphery of the washery plant shall be concrete road only.*
- 12) *No village road shall be used for transportation of coal and no road transport route shall be adopted, which is passing through any sensitive location such as schools, hospitals etc.*
- 13) *PP shall install a 10 KLD STP within a period of one year to treat domestic waste and treated water shall be used for plantation or water spraying inside the project area.*
- 14) *PP shall within a period of 6 months submit the detail of the industry identified for sourcing water and quantity of water to RO, MoEF&CC. An annual water audit needs to be done to optimize the groundwater requirement. The audit report shall be submitted to RO, MoEF&CC every year.*
- 15) *PP shall implement the protective measure proposed in EMP in a time-bound manner. The budget earmarked for the same is Rs 465 Lakhs (Capital) and Rs 172.5 Lakhs(recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year. In addition to this PP shall install 1 continuous ambient air quality monitoring station at suitable locations preferably the village side with the consultation of SPCB before commissioning of washery operations for extended capacity.*
- 16) *The real time data so generated from CAQMS shall be uploaded on company website and linked it with website of CPCB &SPCB. In addition, data should also be displayed digitally at the entry and exit gate of Washery for public display.*
- 17) *PP shall also install CCTV cameras at the entrance and at the four corners of the plant boundary. PP shall ensure that the same shall be maintained in working conditions.*
- 18) *PP shall implement the activities proposed to address the issues raised during PH. The budget earmarked for the same is Rs 100 Lakh (Capital) and Rs 10 Lakh*

(recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year. In addition to this PP shall use the CSR budget for providing medical facilities, education facilities and other work related to social welfare and skill development on a yearly basis. The expenditure for the same needs to be audited and PP shall submit the proof of activities to RO in a compliance report.

- 19) *PP shall carry out a study for the assessment of the damage caused to crop of the nearby land owners around the coal washery from a Govt. Institute. Based on the outcome of the report necessary compensation shall be paid to land owners as assessed by the District Administration.*
- 20) *The technology so chosen for ETP within washery should conform to 'Zero Liquid Discharge'.*
- 21) *No treated & untreated wastewater shall be discharged outside the boundaries of project area.*
- 22) *PP shall monitor the heavy metal in the water samples at least twice/year, and install the piezometers for regular monitoring of groundwater level. Report shall be submitted along with six monthly compliance reports to the concerned RO.*
- 23) *NoC from Central Ground Water Authority (CGWA)/ concerned local authority, as the case may be, shall be obtained before drawing the ground water for the project activities, state pollution control board/pollution control committees shall not issue the consent to operate (CTO) under Air (prevention and control of Pollution) Act and Water (prevention and control of Pollution) Act till the project proponent shall obtain such permission.*
- 24) *PP to undertake the recruitment of a full-fledged qualified manpower with Environmental Engineer/Env. Science degree background in Environment Management Cell etc at coal washery plant for compliance of EC conditions.*
- 25) *Solar street light to be installed with its proper maintenance inside the plant and along the road of incoming raw coal & outgoing washed coal to avoid accident in nearby villages and a record must be furnished to RO with six monthly compliances.*
- 26) *PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms.*
- 27) *PP must provide the workers proper PPE and must also trained them and a record of training must be furnished to RO.*
- 28) *Proponent shall get the Regular and Periodical medical examination of the workers engaged in the Project by an Occupational Health Specialist, and maintain records accordingly; also, Occupational health check-ups for workers having some ailments*

like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly.

- 29) *PP shall deploy suitable manpower for management of traffic due to transportation of coal from this Washery to avoid accidents.*
- 30) *PP shall ensure that a suitable parking area shall be provided for the parking of the trucks and necessary arrangements (drinking water facility/ rest room/ toilets etc.) shall be provided for the drivers & helpers.*
- 31) *Although the validity of EC is as per the Ministry's OM dated 13/12/2022 but still for further operation of Washery PP should have a valid lease.*
- 32) *PP shall submit the approved Wildlife Conservation Plan to RO and the budget approved shall be deposited as suggested by the approving authority.*

Agenda No 12.10

Proposal for Terms of Reference (ToR) of EFG Valia Lignite Block of production capacity of 5.0 MTPA for an area of 3011.4312 ha of M/s Gujarat Mineral Development Corporation Ltd located at Villages Choramlā, Singla, Vithalgam, Vandariya, Umargam, Sodgam, Rajgargh, Itakla, Pithore, Daheli, Bhamadiya, Jabugam, Bharadiya, Kesargam, Kosmadi, Luna, Sinada & Tuna, Taluka – Valia, District- Bharuch, Gujarat - Terms of Reference - regarding

[Proposal No. IA/GJ/CMIN/476144/2024; File No.: IA-J-11015/14/2023-IA-II(M); Consultant: M/s Vardan EnviroLab; NABET/EIA/2326/RA 0284 Valid up to 04.05.2026]

12.10.1: Gujarat Mineral Development Corporation Ltd (GMDC) has made an application online vide proposal no IA/GJ/CMIN/476144/2024 dated 27/05/2024 along with the application in prescribed format (Form-I) and pre-feasibility report for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 1(a) Mining of minerals Under Category “A” of the schedule of the EIA Notification, 2006 and to be appraised at Central Level as the mine lease area is more than 500 Ha.

The project of Gujarat Mineral Development Corporation Ltd (GMDC) located in villages Choramlā, Itakla, Jabugam (partial), Rajgargh, Singla, Sodgam, Umargam, Vandariya, Vithalgam, Bhamadiya (partial), Daheli (partial), Pithore (partial), Bharadiya, Kesargam, Kosmadi, Luna, Sinada & Tuna, Taluka – Valia, District- Bharuch, State - Gujarat is for operating a mine for production of 5.0 Million Tons Per Annum (MTPA) of Lignite within the Mine lease area of 3011.4312 ha.

The proposal was considered in the 46th EAC meeting held on 26-27th June 2023 wherein the Committee deferred the proposal for want of additional information. Thereafter, PP submitted the information on the Parivesh Portal and the proposal was placed in the 10th EAC meeting held 9th April 2024, wherein again the Committee returned the project as it is, with the view that the proposal needs to be submitted afresh based on the details provided in the approved mining plan along with the information earlier submitted and the correct ADS reply. PP, therefore applied vide proposal No IA/GJ/CMIN/476144/2024 and the proposal is now placed in the 12th EAC meeting held on 5-7 June 2024.

12.10.2: Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

12.10.2.1: Location:

1. The project area is covered under Survey of India Topo-sheet No. 46 G/2 & 46 G/6 and is bounded by the geographical coordinates ranging from 21°31' 21.181" N to 21°35' 29.959" N and Longitude- 73°11' 9.169" E to 73°15' 28.16" E.
2. The project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed a moratorium on the grant of Environment Clearance.

12.10.2.2: Previous Approval and Past Production Details: PP submitted that the proposal is for fresh ToR and a Green Field Project.

12.10.2.3: Forest Area: PP submitted that the project does not involve the Forest Land.

12.10.2.4: Protected Area: PP reported that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. PP Further submitted that reserve forests Vad, Kevdikund and Tuket are at a distance of 6.87 Km SE, 6.88 km SE and 9.16 km South respectively, from the project area. PP also submitted that a Specific Wildlife Conservation Plan will be prepared for Schedule – I species if found during the survey. There is no violation of the WLP, Act, of 1972.

12.10.2.5: Lease Details: PP submitted the following details regarding the mining lease of an area of 3011.4312 Ha.

S. No.	Govt. Order/Notifications as the case may be	Area (ha)
1	GUJ-2017-23-MCR-102015- 406-CHH-1 dated 03.07.2017	3015 ha
2	Details of LOI: MCR 102021-ML-04-CHH1 dated 18.01.2022	3011.4312

S. No.	Govt. Order/Notifications as the case may be	Area (ha)
Grand Total		3011.4312

The date of block allotment is 17th February 2016.

12.10.2.6: Mining Plan: PP submitted that the mining plan & mine closure plan for the project were approved for the rated capacity of 5.0 MTPA and peak capacity of 7.5 MTPA, Area 3011.4312 Ha area vide letter no. EFG-ValiaGJGU005/APP00249/2023 dated 26.07.2023 (09.05.2023) by Ministry of Coal.

12.10.2.7: Mining Details:

- i) PP submitted that the total Mining lease area as per block allotment is 3011.4312 Ha. The Mining plan and Mine closure plan for EFG Valia Lignite Mine was approved by Ministry of Coal on 26.07.2023.
- ii) PP Submitted that the Method of Mining to be adopted shall be Opencast through Pay loader – Dumper/ Shovel – Dumper and the waste/OB handling is with shovel dumper. The gross geological reserve reported in the mine lease area is 509.31 MT and the Net geological reserve is 458.3800 MT with 277.4 MT of mineable reserves. Out of the total mineable reserve of 277.4 MT, 263.5200 MT are available for extraction. Per cent of extraction is 57.4890%. There are 9 seams with thicknesses ranging from 0.30 m – 24.40 m that are workable and the Grade of coal is 2725, stripping ratio 4.8128 (m³/ton) while gradient is 30-50 of the lignite seams. Life of mine is **54 years**.
- iii) PP Submitted that the project has 2 external OB dumps in an area of 418.33 ha with 90 m height and 344.21 M.cum of OB and 4 internal OB dumps in an area of 1,212.27 ha with 813.36 Mm³ of OB is envisaged in the project.
- iv) PP submitted that the total quarry area is 1641.74 ha out of which backfilling will be done in 1340.80 ha while the final mine void will be created in an area of 300.94 ha with a depth of 150 m. The backfilled quarry area of 1340.80 ha shall be reclaimed with plantation. The final mine void will be converted into a water body.

v) Details of land usage:

Pre-mining:

Sl. No.	Land Use	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural Land	2498.6146	-	2498.6146
2	Forest land	-	-	-
3	Waste land	93.4030	-	93.4030

Sl. No.	Land Use	Within ML Area (ha)	Outside ML Area (ha)	Total
4	Grazing land	157.5210	-	157.5210
5	Surface Water Bodies	109.2866	-	109.2866
6	Community	34.9112	-	34.9112
7	Roads	88.0727	-	88.0727
8	Township	29.6221	-	29.6221
Total				3,011.4312

Land use during mining:

Sl. No.	Land Use during Mining	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	418.33	-	-	-	418.33
2	Top soil Dump	-	-	-	-	-
3	Excavation	-	300.94	-	-	1641.74
4	Roads & Infrastructure	80	-	-	-	80.00
5	Green belt	207.68	-	-	-	207.68
6	Safety Zone	20	-	-	-	20.00
7	Undisturbed Area	-	-	-	440.2	440.20

Sl. No.	Land Use during Mining	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
8	Other Use	-	-	-	-	203.48
Total						3,011.4312

Post-Mining:

Sl. No.	Type	Total Area	Reclaimed Area	Un-reclaimed area
	Excavation/Quarry Area:	1641.74	-	-
	(a) Backfilled areas	-	1340.8000	-
	(b) Excavated Void	-	300.9400	-
	External Dump	418.33	418.33	-
	Safety Zone	20	20	-
	Road and infrastructure	80	80	-
	Garland Drains	7	7	-
	Embankment	27	27	-
	Road Diversion	4	-	4
	Rationalization Area	143.48	143.48	-
	Green Belt	207.68	207.68	-
	Undisturbed OR Mining Right For UG	440.2	-	440.2
	Others (Settling Pond)	2	2	-
	Others (Diversion Or Below River Or Nala Or Canal)	20	20	-
Total				3,011.4312

vi) PP submitted that lignite transportation from this mine within the outside mining lease will be done as follows:

- In Pit: Rear discharge Dumpers
- Surface to siding: Initially by covered truck.
- Siding to loading: Initially by covered truck.
- Quantity being transported by Road/Rail/conveyer/ropeway: The transportation feasibility study of the EFG Valia Lignite Block will be worked out.

There is no proposed change in transportation means.

vii) The project involves 3631 PAF. R&R of the PAPs will be done as per prevailing laws.

viii) Total capital cost of the project is ₹ 8,999 crores. Cost of production is Rs. 1800/t.

12.10.2.8: Legal Issues/ Violation: PP reported that there is no legal issue/violation wr.t

i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

12.10.2.9: Baseline Studies: PP submitted that baseline study reports will be submitted with the EIA/ EMP report. PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc., has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No. No – TC-6299 and valid till 27.08.2024.

12.10.2.10: Water requirement: PP submitted that the water requirement will be 1330 KLD of which 300 KLD is for greenbelt development and 20 KLD is a domestic requirement, rest is for industrial use and sprinkling requirement. Domestic water will be sourced from Ground Water from bore wells and Industrial water from Treated Mine Pit Water/ Accumulated rainwater. There will be a groundwater intersection and an Application for obtaining the approval of the Central Ground Water Authority for NOC for water withdrawal will be submitted after the approval of ToR.

12.10.2.11: Diversion: Diversion has been proposed for Tokri River, Kim River and Daulatpura Irrigation Canal. The detailed Diversion Report has been submitted for Daulatpura Main Canal (Letter no. GMDC/PPD/3589/2023-24) on 05.03.2024 to Chief Engineer (Panchayat) & Additional Secretary of Water Resources Department, and for Kim & Tokri River (Letter no. GMDC/PPD/3590/2023-24) on 05.03.2024 to Chief Engineer (CG) & Additional Secretary of Water Resources Department.

12.10.2.12: Waste: The details of solid and hazardous waste generation along with its mode of treatment/disposal are furnished below:

Sl. No	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal	Remarks
	Domestic Solid Waste	Mine office and Canteen	110		Waste segregated, dry recyclable waste sold to recycling vendors & organic waste shall be composted	Site Composting & dry waste will be recycled.
	Plastic Waste	Admin building, canteen etc.	4		CPCB/SPCB guidelines for Authorized vendors	
	Electrical and Electronics waste from mine office	Mine Office	0.1		Given to E waste Dealer	
	Used Batteries	Vehicles, HEMM, UPS	10		Buy Back by Supplier	
	Biomedical Waste	Dispensary, First aid kits etc.	0.03		As BMWR 2016	
	Used Oil	DG set, Vehicle and HEMM	0.5		Handed over to SPCB authorized vendor	

12.10.2.13: R&R Issues: Rehabilitation is proposed to be done as per state Government Policy or LARR 2013 whichever is more beneficial to Project Affected Family.

Rehabilitation will be done as per existing laws. About 2520 PAF of 18 villages (Choramla, Itakla, Jabugam (partial), Rajgargh, Singla, Sodgam, Umargam, Vandariya, Vithalgam, Bhamadiya (partial), Daheli (partial), Pithore (partial), Bharadiya, Kesargam, Kosmadi, Luna, Sinada & Tuna) exists within the ML Area. A detailed demographic /Socio-economic survey for R&R will be carried out before the start of the mining activity.

12.10.3: The Committee after deliberations noted the following:

The proposal was initially considered in the EAC meeting held on 26-27th June 2023 wherein the Committee after deliberation deferred the proposal for want of additional information. PP submitted the reply on the PARIVESH portal and the proposal was then considered in the 10th EAC meeting held on 09th April 2024, wherein the PP and NABET Accredited consultant made a detailed presentation on the ADS points. The Committee due change in data returned the proposal in its present form. PP now applied afresh vide proposal No. IA/GJ/CMIN/476144/2024 along with previous ADS replies and the proposal is now placed in the 12th EAC meeting. PP and NABET Accredited Consultant made a detailed presentation. The Committee deliberated on the presentation made by the PP. After deliberation, the Committee noted the following:

- 1) The proposal is for Terms of Reference (ToR) with a production capacity of 5.0 MTPA from EFG-Valia Block in the ML area of 3011.4312 Ha located at Villages Choramla, Singla, Vithalgam, Vandariya, Umargam, Sodgam, Rajgargh, Itakla, Pithore, Daheli, Bhamadiya, Jabugam, Bharadiya, Kesargam, Kosmadi, Luna, Sinada & Tuna, Taluka – Valia, District- Bharuch, Gujarat. It's a green field project.
- 2) PP submitted that LOI (Letter of Intent) for Mining lease of Lignite Mineral in Favor of GMDC Ltd. has been issued by letter no MCR 102021-ML-04-CHH1 dated 18/01/2022 by Industries and Mines Department, Government of Gujarat.
- 3) The baseline study and data collection was done during March to May 2023 (pre-monsoon), according to Ministry's O.M. dated 08 June 2022.
- 4) PP submitted that the Mining plan & mine closure plan for the project was approved for capacity 7.5 MTPA, Area 3011.4312 Ha area vide letter no. EFG-ValiaGJGU005/APP00249/2023 dated 26.07.2023 by Ministry of Coal.
- 5) PP reported that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/ elephant corridor etc.

- 6) The Committee observed that the project does not fall under Critically Polluted Area (CPA)/ Severely Polluted Area (SPA) as per CEPI Assessment 2018.
- 7) The Committee previously noted that the details of post-mining land use mentioned in previous minutes and the application form submitted by the PP and submitted now are different and there is a change in post-mining land use, reserves and life of mine. The EAC took a serious view that these aspects were not brought to the notice of the Committee during the meeting neither by the PP nor by the Consultant which is not acceptable and it is the responsibility of the PP as well as the consultant to bring to the notice of the committee any changes occurred during the two meetings. The committee also observed that the units mentioned in Annexure-I (ADS reply) are also not correct. The PP and consultant should ensure the correctness of the documents before submission. The Committee is of the view that PP and Consultant should be more cautious in future while submitting the proposal. The Committee therefore returned the proposal in its present form and is of the view that the proposal needs to be submitted afresh based on details provided in the approved mining plan and along with the above information and correct ADS reply. The PP in ADS reply submitted that “ *Initially the TOR application was submitted to MoEF&CC on 23/05/2023 which was based on the draft mining plan. The proposal was considered in the 46th meeting of EAC (Coal Mining) dated 27/06/2023 wherein EAC made certain observations and the proposal was deferred. Reply of the above observations was submitted to MoEF&CC on dated 16/03/2024. Meanwhile, the mining plan got approved by Ministry of Coal on 26/07/2023 and during the approval of mining plan, the details of post-mining land use, reserves, life of mine, etc. got changed. Accordingly, the updated information was based on approved mine plan which was submitted along with the reply of observations. Fresh proposal including Form-1 and PFR has been submitted on 27th May 2024 based on the approved mining plan*”.
- 8) The Committee observed that out of the total lease area of 3011.44 Ha, there is agricultural land of 2498.61 Ha, i.e. approx. 83% of the lease area. The Committee previously asked that PP should submit the cost-benefit analysis considering the agricultural product vis-a-vis mining product. Further, the technical recommendation of the concerned department needs to be submitted on the diversion plan. PP in its reply submitted that “*A Cost Benefit Analysis has been conducted considering the agricultural product vis-a-vis mining product. The CBA concludes a ratio of 1:4 (Agriculture: Mining). Technical recommendation of the department will be a part of the NOC / DPR approval letter on the diversion plan as mentioned in SI No 1 of ADS*”.

- 9) The Committee asked the PP to submit a detailed plan for agricultural land restoration and subsequent use from 5th year onwards. The Committee also asked the PP submit the details of the use of undisturbed agricultural land.
- 10) The PP submitted on the Parivesh portal that the plantation will be carried out around the build-up areas, Garland Drains, Safety zone.
- 11) The Committee asked the PP to submit the concurrent planting programme with native species from the first year onwards.
- 12) The PP on the Parivesh portal submitted that there are 2 high transmission electrical lines proposed to be diverted. One high transmission line passing from SW of block will be diverted for about 2 Km length. And the second high transmission electrical line passing from the center of the block southwest to northeast will be diverted for about 11 Km length. PP further reported, that along with this there is road diversion proposed for 4 Km. The Committee deliberated that it shall be done after taking a prior permission from the concerned authority.
- 13) The PP submitted that two rivers are passing through the lease area which are proposed to be diverted. Kim River traverses the block from the northern part which flows from North-east to South-west of the block. The Tokri River, which is a tributary of the Kim River, traverses through the block in the southern part of the block which flows from east to west. PP further submitted that apart from these two rivers, there is a canal (Daulatpura minor irrigation) that passes from the center of the block from northeast to southwest. PP also submitted that Kim River will be straighten at two stretches of 1100m and 350m length, which will be between quarry1 and quarry2. PP also submitted that diversion of Tokri River is not proposed at the present stage and the same shall be considered at later stage. PP further submitted that the Daulatpura canal diversion will be 11.5 Km.

The Committee previously deliberated on the information submitted by the PP and is of the view that based on the geology and other parameters of the deposit by the UG method. Hence OC mining can be done. Further, the PP has proposed to initiate the mining operation from the northern part of the lease and proposed for straightening of a portion of the Kim River. However, Tokri River is proposed to be diverted along the lease boundary. Further, it is proposed for the diversion of the Daulatpura minor irrigation canal. The Committee is of the view that the river and canal have come under the preview of the State Government and PP shall approach the concerned State Government to obtain necessary permission for diversion and concerned State Government before issuing NOC shall take into account the requirement/ dependency of the persons living in the downstream of the river/ canal and care needs to be taken to ensure that people living in the downstream areas are not deprived of water for drinking or irrigation. The PP in

its ADS reply submitted that *“Mining has been proposed using open cast method only and accordingly mine plan has been approved by MOC on 26.07.2023. For the diversion of Kim River, Tokri River and Daulatpura Canal, a hydrology study to ascertain the feasibility of the diversions has been conducted and submitted for approval to the Chief Engineer (Panchayat) & Addl Secretary, Narmada Water Resources, Water Supply & Kalpsar Department, Govt of Gujarat and the Chief Engineer & Addl Secretary, Narmada Water Resources, Water Supply & Kalpsar Department, Govt of Gujarat on 05/03/2024 and 05/03/2024 respectively. Consequently, observations have been issued by the competent authority on 24/04/2024 & 03/05/2024, and the final report has been submitted on 02/05/2024 and 16/05/2024 for River & Canal respectively. Also, a site inspection has been conducted by the Superintendent Engineer (SE) WRD Varoda on 29/04/2024. The proposal is in active consideration at the office of the Chief Engineer cum Additional Secretary Govt. of Gujarat, Ahmedabad. Copy of NOC from State Govt. will be submitted to MoEF&CC along with final EIA”*. After the deliberation on this issue PP submitted that as of now the diversion of this river is not proposed.

The Committee previously mentioned that with respect to the proposal for straightening of the Kim River a Conservation plan may be submitted with measures to maintain the continuity of the aquatic ecology, flora and fauna & ecosystem services. No concrete lining should be considered and a plan for a safety strip of at least 50 mts width on either side during and after mining operations to be submitted. PP in ADS reply submitted that *“ GMDC had engaged Gujarat Environment Management Institute (GEMI) an autonomous institute of Govt of Gujarat to study the “River ecology of the existing streams with the impact study of the proposed diversion of River & Canal at EFG Valia Lignite Block of Gujarat Mineral Development Corporation Ltd (GMDC) and based on the findings and conclusion of the above mentioned report, a Conservation Plan has been prepared and a budgetary provision of Rs 25 Lakhs has been earmarked for 2 years for the following activities. 1) Riparian Area Protection and Enhancement. 2) Introduction of fish seeds of indigenous species into the diverted river course and River Ranching program (for two years @ 5 lakh per year. 3) Introduction of aquatic flora present in the existing river course into the diverted river course. 4) Awareness Campaign (for 02 Years). A safety strip of 50 mts on either side has been earmarked and planned.*

Concerning the Tokri river, the Committee previously noted that it flows in two channels in the southern part of the ML. It also supports a riverine ecology including flora and fauna and provides vital ecosystem services. Its diversion should not be planned at this stage and can be considered at a later stage. PP in its ADS reply submitted that *“ As per the EAC’s recommendation, diversion of Tokri river will not be planned at this stage. GMDC has provided an undertaking that the Tokri River will not be diverted at this stage and will be considered at a later stage.*

- 14) PP submitted that the water requirement for the project will be of 1330 KLD and the source of water will be groundwater. PP submitted that the permission for abstraction of groundwater will be taken from CGWA after the grant of ToR.
- 15) The drone video was shown to the Committee during the previous meeting and the Committee was of the view that the area has rich agricultural fields and there may be the possibility of sub-surface water in the river/stream. The PP agreed with the same. The Committee is of the view that although it's a site-specific project and involves a change in land use for the extraction of minerals. Since excellent agricultural lands are proposed to be used for mining, a detailed plan be submitted for restoring at least 90% of this land for cultivation in a phased manner as mining progresses. This should start within 5 years after commencement of mining operations. The PP shall submit the year-wise production, development and backfilling plan both in tabular format and also on the surface plan and confirm the timeline by which PP can convert the mine void into the same profile suitable for agriculture. Further, PP shall submit a surface geological plan clearly showing the extent of the coal seam vis-a-vis rivers and canals. The PP in ADS reply submitted that *“Total lease area is 3011.44 Ha. out of which agriculture land is 2498.61 Ha, i.e. approx. 83% of the lease area. Initially, restoration of 1340.80 Ha land to agriculture land was proposed which is approx. 45% of the total area and the activities for restoration were proposed from 10th year of mining. In order to maximise the restoration of land to agriculture land, an action plan for Restoration of Agriculture Land has been prepared. As per this plan, an area of 2004.48 Ha will now be converted to agriculture land which is approx. 67% of the total area i.e. to approx. 80% of the original Agriculture Land of 2498.61 Ha within the Mine Lease Area and restoration activity will commence within 6 years after commencement of mining operations. Backfilling will be started early from Mine Pit 1, and an backfilled area of 15 Ha, 15 Ha, 15 Ha, 30 Ha, will be converted into agriculture land from the 6th year, 7th year, 8th year and 9th year onwards respectively to achieve 67% at the end of post closure Mining as mentioned above.”* PP also showed the detail year-wise reclamation schedule as per the Approved Mining Plan and a copy of the Surface Plan. A surface geological plan clearly showing the extent of the coal seam vis-a-vis rivers and canals is also submitted.
- 16) The PP submitted that the total manpower required for the project will be 1300 persons. The project cost submitted by the PP is Rs. 8999 Cr.
- 17) The details of the Reserves and Resources submitted by the PP are as follows:
- Net Geological reserves – 458.3800 MT

- Extractable Reserves – 263.52 MT
- Life of Mine – 54 Years

18) PP submitted that the Mining method will be fully mechanized. Shovel Dumper combination shall be used for mining of lignite and OB would be removed using conventional excavator and transported by dumpers.

*Based on the discussion held and the documents submitted the EAC **recommended** the proposal for the grant of Terms of Reference (TOR) to EFG Valia Lignite Block (production capacity 5 MTPA, mine lease area of 3011.4312 Ha), located at Villages Choramlā, Singla, Vithalgam, Vandariya, Umargam, Sodgam, Rajgargh, Itakla, Pithore, Daheli, Bhamadiya, Jabugam, Bharadiya, Kesargam, Kosmadi, Luna, Sinada & Tuna, Taluka – Valia, District- Bharuch, State - Gujarat by Gujarat Mineral Development Corporation Ltd (GMDC), under EIA Notification, 2006 (as amended) with the following specific ToR conditions in addition to generic ToR.*

Specific Conditions:

1. *PP has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OMs issued by MoEF&CC in this regard.*
2. *PP is not allowed to divert the Tokri River in the present phase.*
3. *PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.*
4. *The EIA/EMP report should include a diversion plan for the Kim River, Daulatpura Irrigation Canal, and Tokri River, including a copy of permission obtained from the concerned authorities. EIA should have the impact of such diversion on the environment and local community along with a cost-benefit analysis.*
5. *The EIA/EMP report should include the diversion plan for other surface features such as roads, transmission lines etc., if any, including the impact of such diversion on the environment & local community along with a cost-benefit analysis and status of the permission obtained from the concerned authorities.*
6. *Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical*

model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.

- 7. PP shall prepare the mining plan in such a way that it should provide the details of the diversion of canal/nallah/roads etc. involved in this project in the same. Further, no mining activities (except transportation) including OB dumping shall take place outside the lease area. Further, the total excavation (minerals, waste, topsoil) to be excavated needs to bring out clearly in the production and development plan. The mineable reserves and blocked reserves need to be mentioned along with life of mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of the life of the mine. The location of mineral stacking, dumping sites, plantations and other infrastructures needs to be brought out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.*
- 8. As the project involves groundwater intersection a Hydrological study shall be carried out by some Government Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.*
- 9. PP shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget.*
- 10. Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report. Further, the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.*
- 11. PP should submit a rejuvenation plan for seasonal water courses/ seasonal water bodies and financial commitments need to be submitted for the protection of the river. PP shall carry out regular monitoring of Groundwater level and quality and measures to be taken.*
- 12. PP should submit the quantity of surface or groundwater to be used for this project. The complete water balance cycle needs to be submitted. In addition to this PP should submit a detailed plan for rainwater harvesting measures to be taken. The PP should submit the year-wise target for reduction in consumption of the ground/surface water by developing alternative sources of water through rainwater harvesting measures. The capital and recurring expenditures to be incurred need to be submitted.*

13. *PP shall explore the possibilities of utilization of OB material for different purposes (in the construction of roads, manufacture of artificial sand, aggregates, use for farmers etc.) and accordingly Plan shall be included in the EIA/EMP Report.*
14. *PP shall submit the measures to be taken for the stability of dumps already existing and proposed to be developed during the mining operation. In case the height of the any dump is more than 60 meters then PP shall get the study done from a reputed institute in this regard.*
15. *Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
16. *Details of grazing land if any involved in the mining lease are to be provided. In case activity is to be proposed on grazing land then PP shall provide the relevant rule position applicable in this regard and compliance of the same.*
17. *PP shall submit a detailed plan for agricultural land restoration and subsequent use starting from 5th year onwards.*
18. *PP shall submit the details of the use of undisturbed agricultural land.*
19. *PP should submit the detailed plan in tabular format (year-wise for the life of the mine) for concurrent afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 2 years only.*
20. *PP should submit the quantity of surface or groundwater to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rainwater harvesting measures to be taken. The PP should submit the year-wise target for reduction in consumption of the ground/surface water by developing alternative sources of water through rainwater*

harvesting measures. The capital and recurring expenditure to be incurred need to be submitted.

21. A Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions. A need based sample survey, family-wise, should be undertaken to assess their requirements, and action programs prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government.

22. PP should bring out the details of the awareness campaign to be carried out on various Environmental issues, and practical training facilities to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. A target for the same needs to be submitted

23. PP shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route. The height and speed of the drone shall be so maintained to give legible images/videos. Necessary titles should be included for better understanding.

24. PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.

25. PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues raised during Public Hearing. The capital and recurring expenditure to be incurred needs to be submitted.

26. PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using electric/e-vehicles/cleaner fuel (LNG/CNG) based mining machinery and trucks for mining operations and transportation of coal.

27. All the certificates viz. Involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.

28. PP should clearly show the transport route of the mineral and protection and mitigative measures to be adopted while transporting of the mineral. The impact from the centre line of the road on either side should be brought out supported by the line source modelling and isopleth. Further, the frequency of testing of Poly polychromatic hydrocarbon needs to be submitted along with the budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources. The Ground level concentration of various pollutants in worst-case and control-case scenarios needs to be submitted. The cumulative impact of other activities needs to be considered in the EIA/EMP Report.
29. To support the transportation road, PP shall carry out the traffic study for at least one month along with the mitigation measures to control air pollution.
30. PP shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
31. PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of the Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.
32. The PP should ensure that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.
33. The PP should submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
34. As the production level is above 2 MTPA, PP shall submit a plan for the installation of Silo Loading System (SLS), the transportation of coal through the belt conveyor from pit to SLS and from SLS through rail. A feasibility study needs to be conducted and the study should also clearly bring out the timeline for the installation of this setup and tentative budget.

35. *As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public consultation including the public hearing, the Project Proponent is required to submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring). Activities proposed shall be part of EMP.*
36. *Details on renewable energy (solar plant) proposed to be installed as energy conservation measures shall be submitted.*
37. *PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PPs shall update the same to the EAC.*
38. *PP should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.*
39. *The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.*
40. *A detailed Wild Life Conservation plan for Schedule 1 species shall be prepared for the conservation of the species. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW.*
41. *PP shall also submit an action plan pursuant to MoEFCC OM dated 29.10.2014.*

Annexure-I

Standard EC Conditions for Coal Mining Project (Opencast mining):

All the projects recommended for grant of environmental clearance by the EAC shall also comply with the following Standard EC conditions as per Ministry's circular issued from time to time:

(a) Statutory compliance

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, 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/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.

(b) 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 25th September, 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 airborne 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.
- (c) **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 25th September, 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 27th May, 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 purposive. 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/Gol 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 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.

(d) 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.

(e) 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) (ii) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

(f) 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) 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 stabilized 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.

(g) 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 allalong 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.

(h) 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 OMNo.Z-11013/5712014-IA.I1 (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'.

(i) 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 approved 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 shareholder's/stake holders.
- (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 report 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.

(j) 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 environmental 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, NOx (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 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'.
- (vii) 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.
- (viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (x) 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.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
- (xii) 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.
- (xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) 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.
- (xvi) 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.

Annexure-II

Standard EC Conditions for Coal Mining Project (Underground mining):

All the projects recommended for grant of environmental clearance by the EAC shall also comply with the following Standard EC conditions as per Ministry's circular issued from time to time:

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, fromtime to time, and as applicable to the project.
- (ii) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, 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 centres.
- 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 airborne 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-IA.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 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. 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 run off.
- viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purposive. 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/Gol 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 equipment (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 (MoEF&CC).
- 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 air 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, along with 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 OMNo.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 shareholder's / 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 sevendays 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 may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry 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.

Annexure-III

Standard EC Conditions for Coal Washery Project

I. Statutory compliance:

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, 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.

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. carried out at least once in six months.

- ii. 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.
- iii. 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
- iv. 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.
- v. Covered trucks shall be engaged for mineral transportation outside the washery up to the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.
- vi. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.
- vii. 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.
- viii. 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.
- ix. 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.

- x. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

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-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 riverfront side stabilized 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 MoEF&CC 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 MoEF&CC. 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 MOEF&CC/RO. 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.
- xii. 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.

IV. 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.

V. 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.

VI. 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 neighboring 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/transferpoints 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.

VII. 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. 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.

- ii. 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.
- iii. 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.
- iv. The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.11 (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'.

VIII. 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/EMP 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 (MoEF&CC) 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 may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

- xiii. The Ministry 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 period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

ANNEXURE-IV

Generic ToR for coal washery

- i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washer preferably through closed conveyor belt to avoid air pollution.
- ii. The washery shall not be located in eco-sensitive zones areas.
- iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
- iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
- v. A brief description of the plant along with a layout, the specific technology used and the source of coal should be provided.
- vi. The EIA-EMP Report should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. along with the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM10, PM2.5, SOx and NOx, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.

- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.
- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
- xiii. Impacts of CHP, if any, on air and water quality should also be spelt out along with Action Plan.
- xiv. O.M. No. J-II013/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.
- xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
- xvi. Analysis of samples indicating the following be submitted: Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc). Characteristics and quantum of coal after washing. Characteristics and quantum of coal rejects.
- xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyer belt. If it is far away, the transportation should be by rail as far as possible.

- xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.

Corporate Environment Responsibility:

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
- b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/ deviation/ violation of the environmental or forest norms/ conditions.
- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
- d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- e) A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.
- f) Permission of drawl of water shall be pre-requisite for consideration of EC.
- g) Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986
- h) Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

- (i) An EIA-EMP Report shall be prepared for MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
- (ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) A toposheet specifying locations of the State, District and Project site should be provided.
- (iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.
- (v) Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area mayalso be provided with explanatory note on the land use.
- (vi) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.
- (vii) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in

the separate map.

- (viii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channeling of the water courses, etc., approach roads, major haul roads, etc should be indicated.
- (ix) In case of any proposed diversion of nallah/canal/river, the proposed route of diversion/modification of drainage and their realignment, construction of embankment etc. should also be shown on the map as per the approval of Irrigation and flood control Department of the concerned state.
- (x) Similarly, if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment should be shown in the map along with the status of the approval of the competent authority.
- (xi) Break up of lease/project area as per different land uses and their stage of acquisition should be provided.

LANDUSE DETAILS FOR OPENCAST PROJECT should be given as per the followingtable:

Sl. No.	Land use	Within ML area (ha)	Outside ML area (ha)	Total
1.	Agricultural land			
2.	Forest land			
3.	Wasteland			
4.	Grazing land			
5.	Surface water bodies			
6.	Settlements			
7.	Others (specify)			

	TOTAL			
--	-------	--	--	--

- (xii) Break-up of lease/project area as per mining plan should be provided.
- (xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.
- (xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM₁₀, PM_{2.5}, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non- polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.
- (xvi) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (xvii) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine

development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.

- (xviii) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis- à-vis the potential impacts should be provided.
- (xix) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xx) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
- (xxi) Source of water for use in mine, sanction of the Competent Authority in the State Govt..and impacts vis-à-vis the competing users in the upstream and downstream of the project site. should be given.
- (xxii) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xxiii) Impact of blasting, noise and vibrations should be given.
- (xxiv) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
- (xxv) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.

(xxvi) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.

(xxvii) Details of waste OB and topsoil generated as per the approved calendar programme, and their management shown in figures as well explanatory notes tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use should be given. OB dump heights and terracing based on slope stability studies with a max of 28o angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.

(xxviii) Efforts be made for maximizing progressive internal dumping of O.B., sequential mining, external dump on coal bearing area and later re-handling into the mine void. --to reduce land degradation.

(xxix) Impact of change in land use due to mining operations and plan for restoration of the mined area to its original land use should be provided.

(xxx) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

Table 1: Stage-wise Land use and Reclamation Area (ha)

S.N.	Land use Category	Present (1 st Year)	5 th Year	10 th Year	20 th Year	24 th Year (end of minelife)*
1.	Backfilled Area Reclaimed with plantation)					
2.	Excavated Area (not reclaimed)/void					
3.	External OB dump Reclaimed with plantation)					
4.	Reclaimed Top soil dump					

5.	Green Built Area					
6.	Undisturbed area (brought under plantation)					
7.	Roads (avenue plantation)					
8.	Area around buildings and Infrastructure					
	TOTAL					

* As a representative example

Table 2: Stage Wise Cumulative Plantation

S. No.	YEAR*	Green Belt		External Dump		Backfilled Area		Others (Undisturbed Area/etc)		TOTAL	
1.	1 st year										
2.	3 rd year										
3.	5 th year										
4.	10 th year										
5.	15 th year										
6.	20 th year										
7.	25 th year										
8.	30 th year										
9.	34 th year (end of mine life)										
10.	34-37 th Year (Post- mining)										

* As a representative example

(xxxi) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine

closure and reclamation should be furnished.

Table 3: Post-Mining Landuse Pattern of ML/Project Area (ha)

S.N.	Land use during Mining	Land Use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	TOTAL
1.	External OB Dump					
2.	Top soil Dump					
3.	Excavation					
4.	Roads					
5.	Built up area					
6.	Green Belt					
7.	Undisturbed Area					
	TOTAL					

(xxxii) Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic wastewater, mine water discharge, etc. should be provided. Details of STP in colony and ETP in mine should be given. Recycling of water to the max. possible extent should be done.

(xxxiii) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower in the mine should be given.

(xxxiv) Risk Assessment and Disaster Preparedness and Management Plan should be provided.

(xxxv) Integration of the Environment Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.

(xxxvi) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.

(xxxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribal, SC/ST, BPL families)

found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

(xxxviii) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.

(xxxix) Corporate Environment Responsibility:

(xl)

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
 - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
 - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xi) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
- (xli) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xlii) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xliii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
- (xliv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

FOREST CLEARANCE: Details on the Forest Clearance should be given as per the format given:

Total ML/Project Area (Ha)	Total Forest Land (Ha)	Date of FC	Extent of forest land	Balance area for which FC is yet to be obtained	Status of application for diversion of forest land
		If more than, provide details of each FC			

GENERIC TORs FOR AN UNDERGROUND COALMINEPROJECT

- (i) An EIA-EMP Report shall be prepared for MTPA rated capacity in an ML/project area of ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
- (ii) An EIA-EMP Report would be prepared for MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for MTPA.
- (iii) Baseline data collection can be for any season (three months) except monsoon.
- (iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nallahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.
- (v) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.
- (vi) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

- (vii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channeling of the water courses, etc., approach roads, major haul roads, etc should be indicated.
- (viii) Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified.

S. N	ML/Project Land use	Area under Surface Rights(ha)	Area Under Mining Rights(ha)	Area under Both (ha)
1.	Agricultural land			
2.	Forest Land			
3.	Grazing Land			
4.	Settlements			
5.	Others (specify)			

Area under Surface Rights

S.N.	Details	Area (ha)
1.	Buildings	
2.	Infrastructure	
3.	Roads	
4.	Others (specify)	
	TOTAL	

- (ix) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I

species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.

- (x) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.
- (xi) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xii) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xiii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM₁₀, PM_{2.5}, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xiv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided

along with the specified standards.

- (xv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xvi) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvii) Detailed water balance should be provided. The breakup of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.
- (xviii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.
- (xix) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xx) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xxi) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.

- (xxii) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.
- (xxiii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- (xxiv) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.
- (xxv) Greenbelt development should be undertaken particularly around the transport route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.
- (xxvi) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribal, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.
- (xxviii) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.

(xxix) Corporate Environment Responsibility:

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
- b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of

- the environmental or forest norms/conditions.
- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
 - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xxx) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
 - (xxxii) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
 - (xxxiii) Status of any litigations/ court cases filed/pending on the project should be provided.
 - (xxxiv) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
 - (xxxv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

Details on the Forest Clearance should be given as per the format given:

Total ML /Project Area (ha)	Total Forest Land (ha)	Date of FC	Extent of Forest Land	Balance are for which FC is yet to be obtained	Status of appl. For diversion of forest land
		If more than one provide details of each FC			

ANNEXURE-VII

GENERIC TORs FOR AN OPENCAST-CUM UNDERGROUND COAL MINE PROJECT

- (i) An EIA-EMP Report would be prepared for a combined peak capacity of.....MTPA for OC-cum-UG project which consists of.... MTPA in an ML/project area of ha for OC and MTPA for UG in an ML/project area of ha based on the generic structure specified in Appendix III of the EIA Notification 2006.
- (ii) An EIA-EMP Report would be prepared for MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum underground mining.

ANNEXURE-VIII**LIST OF PARTICIPANTS OF EAC (COAL) IN 12th MEETING HELD ON 5th – 7th JUNE, 2024 THROUGH VIRTUAL MODE**

S. No.	Name & Address	Role	05.06.2024	06.06.2024	07.06.2024
1.	Dr. Sharad Singh Negi (I.F.S. Retd.)	Chairman	Present	Present	Present
3.	Shri Inder Pal Singh Matharu, IFS (Retd.)	Member	Present	Present	Present
3.	Shri Lalit Kapur	Member	Present	Present	Present
4.	Dr. Umesh Jagannathrao Kahalekar	Member	Present	Present	Present
5.	Dr. Santosh Kumar Hampannavar	Member	Present	Present	Present
6.	Shri Savalge Chandrasekhar	Member	Present	Present	Present
7.	Shri K. B. Biswas	Member	Present	Present	Present
8.	Prof. Shyam Shanker Singh	Member	Absent	Absent	Absent
9.	Dr. Vinod Agrawal	Member	Present	Present	Present
10.	Dr Nazimuddin, Scientist - F	Representative of the Central Pollution Control Board	Present	Present	Absent
11.	Shri Mahi Pal Singh, Chief Engineer	Representative of the Central Electricity Authority (CEA)	Present	Present	Present
13.	Shri Harmeet Sahaney	Representative of the Indian Meteorological Department (IMD)	Absent	Absent	Absent
13.	Prof. R M Bhattacharjee	Representative of IIT/ISM Dhanbad	Present	Present	Present
14.	Shri Amit Vashishtha	Member Secretary	Present	Present	Present
MOEF&CC					
1.	Sh. Mohit Saxena	Scientist 'D'	Present	Present	Present

APPROVAL OF CHAIRMAN EAC

