Pro-Active and Responsive Facilitation by Interactive,

and Virtuous Environmental Single-Window Hub,



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

To.

The Director

FAIRMINE CARBONS PVT. LTD.

Flat No. - 401, 4th Floor, Crosswindz 41, Court Road -834001

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity

under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/JH/CMIN/400471/2022 dated 11 Oct 2022. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No. EC22B000JH195568

2. File No. EC/SEIAA/2022-23/2573/2022

3. Project Type New

4. Category B 5. Project/Activity including N/A

Schedule No. RAJHARA NORTH (CENTRAL & 6. Name of Project

EASTERN) COAL BLOCK OPENCAST PROJECT

Name of Company/Organization FAIRMINE CARBONS PVT. LTD. 7.

8. Location of Project **JHARKHAND** 

9. TOR Date N/A

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

(e-signed) Ashok Kumar, IFS Date: 04/11/2022 Member Secretary SEIAA - (JHARKHAND)



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

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# State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834004 E-mail: <a href="masseiga.jhk@gmail.com/chr-seiga.jhr@gov.in">msseiga.jhk@gmail.com/chr-seiga.jhr@gov.in</a> website: www.jseiga.org

Letter No : EC/SEIAA/2022-23/2573/2022/279

Ranchi, Date: 27/10/2022

To: M/s Fairmine Carbons Pvt. Ltd., Sri Rajeev Kumar Singh (Director), 401, 4<sup>th</sup> Floor, 'Crosswindz', 41, Court Road, Distt. – Ranchi, State – Jharkhand, Pin Code - 834001.

Sub: It is in reference to the project "Rajhara North (Central & Eastern) Coal Mine Opencast Project of M/s Fairmine Carbons Pvt. Ltd. at Mouza: Rajhara & Pandwa, Thana: Nawa Bazar & Pandwa, Thana no.: 132 & 198, Dist.: Palamu, Jharkhand (116.80 Ha)", (Proposal No. SIA/JH/CMIN/400471/2022) - regarding.

Ref: Your application no.- FRL/RNC/22-23/070, dated - 18.09.2022.

Sir,

It is in reference to the project "Rajhara North (Central & Eastern) Coal Mine Opencast Project of M/s Fairmine Carbons Pvt. Ltd. at Mouza: Rajhara & Pandwa, Thana: Nawa Bazar & Pandwa, Thana no.: 132 & 198, Dist.: Palamu, Jharkhand (116.80 Ha)" submitted by you for seeking prior Environmental Clearances (EC.

This is a new project which has been taken for appraisal on 18.09,2022.

Project Category: The State Expert Appraisal Committee, Jharkhand deliberated the project during its 94th meeting held on 10-14.05.2022 and SEIAA, Jharkhand has approved the Amendment of ToR in 95th meeting held on 14th, 15th & 16th June, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 148, date 18.06.2022. The final EIA / EMP submitted by PAs to SEIAA on 18.09.2022 and received by SEAC on 18.09.2022.

EC Application for: Coal: 0.75 MTPA

# PROJECT and LOCATION Details:

SI	Parameter		Details
Ţ	Project Name		Rajhara North (Central & Eastern) Coal Block Opencast Project
2	Lessee:		M/s Fairmine Carbons Pvt. Ltd.
3	Lease Address	*	Mouza- Pandwa&Rajhara Block- Pandwa& Kawabata PS- Padwa ,Dist.: Palamau, Jharkhand

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4			District: Palamau, Jharl	khand					
	Lease Area	3	116.80 Ha	Acres: 288,62					
5	Type of Land	37.0	GM &Raiyati						
6	Project Cost	17	126 crores						
7	New or Expansion	27	Amendment						
8	Mineable Reserves	12	15.609 MT						
9	Mine Life	:	22 years	22 years					
10	Man power	:	208						
11	Water Requirement	2	Total 234 KLD for various purposes.  Water required for -  • Manpower 10 KLD  • Plantation 80 KLD  • Dust suppression in Mines and for approach road 120 KLI  • Other Uses 4 KLD  • Quarters for staff 10 KLD  • Misc. 10 KLD						
12	Water Source	4.	Dug wells / Bore wells	415					
13	DG Set / power	:	DG sets (2 x 500KW)						
14	Crusher	*	300 TPH						
15	Nearest Water Body	:	Sadabah River						
16	Nearest Habitation	9.0	Pandwa and Rajhara						
17 1	Nearest Rail Station	2	Kajri (4 km)						
18 1	Nearest Air Port	1	Ranchi(175 Km)						
19	Nearest Forest	:	None						
20 1	Road & Highways	÷	NH-75						

# CO-ORDINATES

1	Latitude	From N24°09'41"	To N24°10'04"
2	Longitude	From E84°02'59"	To E84°04'13

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# Background of the project:

- Pursuant to e-auction conducted by Ministry of Coal, M/s Fairmine Carbons Pvt. Ltd. became the successful bidder and subsequently block was vested vide Vesting Order no. NA-104/11/2020-NA dt.03.03.2021.
- Allottees got Mining Plan approved with capacity of 0.75 MTPA by Ministry of Coal vide- MoC letter no. 13016/52/2008-ca-j (part) dt 16/12/2011.
- Earlier SEIAA issued a TOR for project this AMP area of 117.80 vide its Letter No.: EC/SEIAA/2021-22/2378/2021/107, dated 14/08/2021.
- The project area was reduced to 116.80 ha against 117.80 ha in revision of Mine Plan (August 2011) as: -
  - 6.95 ha area (on east of the allotted block), which was previously included for infrastructure facilities was excluded during boundary certification from CMPDI.
  - b. Also Ministry of Coal instructed that the area left between Geological Boundary and Proposed Mining Lease Boundary should be the part of proposed Mining Lease and it cannot be left, therefore Project Boundary has been extended upto the Geological Boundary and 5.95 ha area was added to the Project boundary.
- Revised Mine Plan Approved by the Ministry of Coal in a meeting dated: 13/04/2022.
- Subsequently SEIAA issued a ToR (Amendment) vide its Letter No. EC/SEIAA/2022-23/2573/2022/148, dated 18/06/2022.
- 7. A meander of Sadabah River will be diverted before end of 3<sup>rd</sup> year of mining. PP has approached Water Resource Department, Govt. of Jharkhand & WRD (GOJ) recommended the proposal for preparation of DPR & model testing vide Letter No.: 3/PMC/Work/465/2021-31/Ranchi dated: 19/01/2022. DPR & model testing report has been prepared and vetted by IIT, Roorkee& the same was submitted to WRD vide Letter No.: FCPL/RNC/2021-22/061 dated 18/08/2022.
- NH-75 will be diverted before end of 17th year of mining. Nominated authority MOC has requested Secretary MoRTH to re-alignment of NH - 75 vide DO Letter: NA-104/11/2020-NA dated: 02/07/2021.

#### LAND DETAILS

Mauja: Rajhara, Thana & Thana No.: Nawa Bazar(132), Anchal: Nawa Bazar, District: Palamu (Daltonganj) Area 13.43 Ha.

Khata No.:-

92,136,222,237,320,328

#### Plot No.:-

1677(P), 1607, 1609, 1610, 1612, 1613, 1611, 1642(P), 1606, 1608, 1600(P), 1678, 1683(P), 1625(P), 1597(P), 1604, 1618(P), 1614(P), 1643, 1603(P), 1605(P), 1679(P)

Mauja: Pandwa, Thana & Thana No.: Pandwa(198), Anchal: Pandwa, District: Palamu (Daltonganj) Area 103.37 Ha.

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#### Khata No. :-

3,4,6,7,10,14,15,17,19,21,25,27,28,29,34,36,44,47,53,54,57,59,60,64,68,74,75,80,81,87,88,92,93,97,102,107,108,109,110,112,117,123,127,129,130,131,132,136,140,144,146,148,149,151,152,156,157,158,161,164,168,172,177,182,184,187,188,192,201,206,211,214,216,219,220,222,224,226,227,235,236,240,242,243,244,247,251,253,256,261,263,264,266,267,268,270,272,273,274,275,277,278,280,281,285,286,288,290,291,293,295,296,297,298,299,300,301,304,305,306,307,308,309,311,312,313,314,318,319,320,322,323,326

#### Plot No. : -

48(P), 571(P), 572, 573(P), 578(P), 579(P), 657(P), 658(P), 659, 660, 661, 662, 663, 664(P), 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680(P), 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697(P), 698(P), 700(P), 706(P), 707(P), 742(P), 743(P), 744(P), 745(P), 746(P), 747(P), 751(P), 758(P), 759(P), 760(P), 767(P), 768, 769, 770(P), 778(P), 779, 780(P), 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791(P), 801(P), 802(P), 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837(P), 838, 839(P), 842(P), 843(P), 943(P), 944, 945, 946(P), 947(P), 953(P), 954(P), 955(P), 956(P), 957(P), 958, 959(P), 960(P), 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1004. 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1016. 1017, 1018, 1027. 1029, 1030, 1031(P), 1032(P), 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1028. 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1041. 1040. 1050. 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064. 1065, 1066, 1067(P), 1068(P), 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1078, 1079(P), 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099(P), 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109(P), 1110, 1111(P), 1112(P), 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121. 1122, 1123, 1124, 1125. 1126. 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157(P), 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172(P), 1175, 1176, 1177, 1178, 1179, 1180(P), 1181, 1182(P), 1183(P), 1173. 1174. 1185(P), 1192(P), 1193(P), 1194, 1195(P), 1212(P), 1214(P), 1215, 1216, 1217, 1218(P), 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226(P), 1241(P), 1242(P), 1243, 1244, 1245, 1246, 1247, 1248(P), 1250, 1251, 1252, 1253, 1254, 1255(P), 1256(P), 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279(P), 1280(P),







1283(P), 1284(P), 1285(P), 1368(P), 1470(P), 1471(P), 1472(P), 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487(P), 1488, 1492(P), 1898, 1900(P)

# Working Details

1	Mining Method	13	Semi-Mechanized O	pencast Mining Method				
2	Quarry Area	18	89.28 ha	Life of Mine -22 YEars				
3	Waste Generation	18	34.1 Cu.M	34.1 Cu.M Life of Mine – 22 Years				
4	Stripping Ratio	1	2:1					
5	Working Days	12	300 Days					
6	Benches: size & No	150	Average height of working benches 10m  Average width of working benches 10m to15m					
7	Elevation of Mine	3	192.10 m to 212 m					
8	Ground Level Elevation	4	192.10 m to 212 m					
9	Ultimate Working Depth	**	86 AMSL					
10	Water Table	ĭ	PRE-MONSOON 14.12 M BELOW BGL POST MONSOON 10.07 M BGL.					
H	Topography of Mine	12	Almost flat having a	gentle southerly slope.				
12	Explosive Requirement	(4)	350 ton/year					
13	Diesel/Fuel requirement	(3)	1252 KL/year (4.17 K1/day)					

#### **Production Details**

Year	- 3	Coal	Production	OB MM3	SR	
Year of Operation	Calendar Year	UG	OC	Total		
1	2025-26	0	0.3	0.3000	0.62	2.0667
2	2026-27	0	0.75	0.7500	1.44	1.9200
3	2027-28	0	0.75	0.7500	1.20	1.6000
4	2028-29	0	0.75	0.7500	1.20	1.6000
5	2029-30	0	0.75	0.7500	1.40	1.866
6	2030-31	0	0.75	0.7500	1.71	2.2800
7	2031-32	0	0.75	0.7500	1.69	2.2532
8	2032-33	0	0.75	0.7500	1.69	2.2533

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9	2033-34	0	0.75	0.7500	1.69	2.2533
10	2034-35	0	0.75	0.7500	1.69	2.2533
11	2035-36	0	0.75	0.7500	1.50	2.0000
12	2036-37	0	0.75	0.7500	1.50	2,0000
13	2037-38	0	0.75	0.7500	1.50	2,0000
14	2038-39	0	0.75	0.7500	1.50	2.0000
15	2039-40	0	0.75	0.7500	1.50	2.0000
16	2040-41	0	0.75	0.7500	1.50	2.0000
17	2041-42	0	0.75	0.7500	1.50	2.0000
18	2042-43	0	0.75	0.7500	1.50	2.0000
19	2043-44	0	0.75	0.7500	1.50	2.0000
20	2044-45	0	0.75	0.7500	1.50	2.0000
21	2045-46	0	0.75	0.7500	1.50	2.0000
22	2046-47	0	0.3090	0.3090	0,57	1.8447

Note: Calendar Plan/Production Plan for the entire life of the mine.

# Proposed Land use

Туре	Land use (Propose d)	Land Use (End of Life)	Land Use (Post Closure)							
			Agricultural land	Plantation	Water Body	Public / Company Use	Forest Land (Returned)	Undisturbed	Total	
Excavation Area	89.28									
Backfilled Area		73.51	73.51						73.5100	
Excavated Void		15.77			15.77				15,7700	
Without Plantation										
Top Soil Dump										
External Dump										







Safety Zone	5.95	5.95		-			5,95	5,9500
Haul Road between quarries				B				
Road diversion	0.92	0.920				0.920		0.9200
Diversion Or Below River Or Nala Or Canal	4.69	4,690			4,690			4,6900
Settling Pond	0,50	0.500	0.500					0.5800
Road And Infrastructure Area	2.71	2.710	2.710					2.7100
Rationalization Area					100			
Garland Drains						974		
Embankment	0.84	0.840				0.840		0.8400
Greenhelt	11.91	11.910		11,910				11.9100
TOTAL	116.80	116.80						116.80

#### ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone	3	5.95	
2	Other Reclaimed Area	1	11.91	

# Solid Waste Management

 Waste Generation will be 34.1 Cu.M. during the life of Mine. The Waste generated shall be backfilled.

# Water Quality Management

 Ground Water will be intersected and in this respect we are under process for NOC from CGWA

# Undertaking submitted affirming:

 Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.

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- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- For Nawa Bazar: Deputy Director, Palamu Tiger Project, North Division, Medinagar vide letter no. 339, dated 08.04.2022 certified that the National Park & Sanctuary is not within 10 km from project site and proposed project is not situated in any ESZ.
- For Pandwa: Deputy Director, Palamu Tiger Project, North Division, Medinagar vide letter no. 338, dated 08.04.2022 certified that the National Park & Sanctuary is not within 10 km from project site and proposed project is not situated in any ESZ.
- For Nawa Bazar: DFO, Palamu Division vide letter no. 1860, dated 22.06.2021 certified that the distance of reserved / protected forest is 250 m from proposed project site.
- For Pandwa: DFO,Palamu Division vide letter no. 1861, dated 22.06.2021 certified that
  the distance of reserved / protected forest is 250 m from proposed project site.
- The CO, Pandwa vide memo no. 242, dated 07.07.2021 & The CO, Nawa Bazar vide letter no. 58, dated 02.03.2021 has mentioned all plot & khata no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan& Register II
- The Member Secretary, JSPCB has forwarded the proceeding of Public Hearing vide Ref. no. PC/PH/RNC/01/2022/B-1933, dated 16.09.2022.

#### Sadabah River Diversion

A meander of Sadabah River will be diverted before end of 3<sup>rd</sup> year of mining. PP has approached Water Resource Department, Govt. of Jharkhand & WRD (GOJ) recommended the proposal for preparation of DPR & model testing vide Letter No.: 3/PMC/Work/465/2021-31/Ranchi dated: 19/01/2022. DPR & model testing report has been prepared and vetted by IIT. Roorkee & the same was submitted to WRD vide Letter No.: FCPL/RNC/2021-22/061 dated 18/08/2022.Sadabah River occupies 5.95 Ha. of land within lease area.

Project Proponent will ensure that a safety barrier of 15 m on both side of the river will be maintained and no mining activity will be carried out in the safety barrier. After getting the

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permission for diversion of said river from the competent authority, the copy of the permission for diversion shall be submitted to SEIAA/SEAC, Jharkhand alongwith the 06 monthly compliance report.

#### NH-75 Diversion

NH-75 will be diverted before end of 17th year of mining. Nominated authority MOC has requested Secretary MoRTH to re-alignment of NH - 75 vide DO Letter: NA-104/11/2020-NA dated: 02/07/2021.0.92 Ha. + 5.85 Ha. (Safety Barrier) i.e. 6.77 Ha. Area involved in this diversion of NH - 75.

Project Proponent will ensure that a safety barrier of 45 m on both side of NH 75 will be maintained and no mining activity will be carried out in the safety barrier. After getting the permission for diversion of NH 75 from the competent authority, the copy of the permission for diversion shall be submitted to SEJAA/SEAC, Jharkhand alongwith the 06 monthly compliance report.

#### Land

Private Land- Private Land will be acquired after obtaining prior permission under CNT 1908 and will be registered.

Government Land (GM)- Application for transfer of GM land is applied vide FCPL/DTO/20-21/011 (GM AAM), FCPL/DTO/20-21/012 (GM KHAS) for Nawa Bazar Block &FCPL/DTO/20-21/022 (GM AAM), FCPL/DTO/20-21/023 (GM KHAS) for Pandwa Block, process of transfer of land is initiated by GOJ.

The proposal was appraised by State Level Expert Appraisal Committee (SEAC) and recommended for grant of Environmental Clearance in 97<sup>th</sup> meeting held on 14<sup>th</sup>, 15<sup>th</sup>, 16<sup>th</sup>, 17<sup>th</sup>, and 18<sup>th</sup> September, 2022.

State Level Environment Impact Assessment Authority (SEIAA), Jharkhand in its 98th meeting held on 17th & 18th October, 2022 discussed the project proposal along with recommendations made by SEAC and decided to grant EC to the project.

On the basis of recommendation of SEAC and decision of SEIAA to grant of EC, Environmental Clearance is hereby issued to the "Rajhara North (Central & Eastern) Coal Mine Opencast Project of M/s Fairmine Carbons Pvt. Ltd. at Mouza: Rajhara & Pandwa, Thana: Nawa Bazar & Pandwa, Thana no.: 132 & 198, Dist.: Palamu, Jharkhand (116.80 Ha" alongwith the following specific conditions as recommended by SEAC:-

#### I. Specific Conditions:

- This Environmental Clearance is valid subject to the following condition below That this project has
  - a. Obtained all legal rights to operate at concerned place.
  - b. Complied with all existing concerned laws of the land and
  - Complied with the decisions of SEIAA on the issue of Environmental Clearance till date.

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- Vegetal cover should be developed on the top soil dump within mining lease area to keep the top soil fertile for further use.
- CER budget should be implemented as per the guildeline of Ministry of Environment, Forest & Climate Change, Govt. of India.
- No mining/activity shall be undertaken in the forest land or deemed forest without obtaining requisite prior forestry clearance.
- v. This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT, MoEF & CC and any other Court of Law, if any, as may be applicable to this project.
- vi. Environmental clearance is subject to obtaining prior clearance from forestry and Wildlife angle including clearance from standing committee of NBWL, as may be applicable to this project (in case any fauna occurs / is found in the Project area or if the area involves forest land or Wildlife habitat i.e. core zone of clephant/tiger reserve etc. and or located with in 10 km. of protected area).
- vii. The project proponent may apply simultaneously for forest and NBWL clearance, in order to complete the formalities without undue delay, which till process on their respective merits, no rights will vest in or accrue to them unless all clearance are obtained.

# II. Statutory compliance:

- 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.
- 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. (incase of the presence of schedule-I species in the study area).
- iv. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors, the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to".
- v. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/Committee.

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- vi. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vii. Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016 as amended from time to time.
- viii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi/SEIAA/CPCB.
- Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- x. The SEIAA, Jharkhand or any other competent Authority may alter modify the above conditions or stipulate any further condition in the interest of Environment Protection.

# III. Air quality monitoring and preservation:

- i. Continuous ambient air quality monitoring stations as prescribed in the statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM1O, PM2.5, S02 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg. As. Ni. Cd., Cr. etc to be carried out at least once in six months.
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water / mist sprinkling / rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM1O/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.

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- iv. The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
- v. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vi. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- 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.

### IV. Water quality monitoring and preservation:

- 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.
- The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-1A.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- 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.
- 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

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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.

- Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
- viii. Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP / STP needs to be provided.
- ix. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- x. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining PlaniEIA/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 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.

# V. 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.

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- 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.

# VI. Mining Plan:

- Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- 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).
- No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980
- Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

#### VII. Land Reclamation:

- Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEF&CC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural /forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining" / "post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3<sup>rd</sup> 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

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- overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- v. Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- vi. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

#### VIII. Green Belt:

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

# IX. Public hearing and Human health issues:

- 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.

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- Personnel (including outsoured employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- v. The project proponent shall follow the mitigation measures provided in this Ministry'S OM No.Z-11013/5712014-IA.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.

# X. Corporate Environment Responsibility:

- The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- 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.
- Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

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#### XI. 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.
- The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM<sub>IO</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- 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.
- 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).
- 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.

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- 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 Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- xvii. The Environmental Clearance accorded shall be valid for the period of lease of the mine, the PP does not increase production rate and alter lease area during the validity of Environmental Clearance.

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

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