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File No: EC/SEIAA/2024-25/3124/2024

Government of India

Ministry of Environment, Forest and Climate Change

(Issued by the State Environment Impact Assessment Authority(SEIAA), JHARKHAND)



Dated 31/05/2024



To,

Gandhey Santhosh
CENTRAL COALFIELDS LIMITED
Office of Project Officer Sawang Washery Kathara Area, Central Coalfields Limited PO-Sawang ,
Sawang, BOKARO, JHARKHAND, 829112
newsawangwashery@gmail.com

Subject: Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding.

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project New Sawang Coking Coal Washery submitted to Ministry vide proposal number SIA/JH/CMIN/418208/2023 dated 15/05/2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO23B0801JH5306333N
(ii) File No.	EC/SEIAA/2024-25/3124/2024
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	2(a) Coal washeries
(vii) Name of Project	New Sawang Coking Coal Washery
(viii) Name of Company/Organization	CENTRAL COALFIELDS LIMITED
(ix) Location of Project (District, State)	BOKARO, JHARKHAND
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the State Environment Impact Assessment Authority(SEIAA) Appraisal Committee (SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by State Environment Impact Assessment Authority(SEIAA)

Appraisal Committee of SEIAA in the meeting held on 23/05/2024. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.

5. The brief about configuration of plant/equipment, products and byproducts and salient features of the project along with environment settings, as submitted by the Project proponent in Form-1 (Part A, B and C)/EIA & EMP Reports/presented during SEIAA are annexed to this EC as Annexure (1).
6. The SEIAA, in its meeting held on 23/05/2024, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Terms of Reference under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of specific and general conditions as detailed in Annexure (2).
7. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the State Environment Impact Assessment Authority (SEIAA) Appraisal Committee hereby decided to grant Terms of Reference for instant proposal of M/s. Gandhey Santhosh under the provisions of EIA Notification, 2006 and as amended thereof.
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The Terms of Reference to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
10. This issues with the approval of the Competent Authority.

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N/A

Annexure 1

Standard Terms of Reference for (Coal washeries)

1. Statutory Compliance

S. No	Terms of Reference
1.1	Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head in mine lease area; not available at pit head then facilitate transportation of unwashed coal to washery through conveyor belt to avoid dust pollution. Regrading other location option analysis criteria should be followed.
1.2	A brief description of the coal washery alongwith its layout, pillar coordinates, the specific technology used and the source of coal should be provided. If the washery is located within the mine lease or near to the mine lease its location should be cited separately also, providing pillar coordinates and site layout plan.
1.3	O.M.no.J-II0I3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.
1.4	PP shall submit clarification from PCCF that mine does not falls under animal corridors of any National Park and Wildlife Sanctuary within 15 to 20 km distance with certified map showing distance of nearest sanctuary.

S. No	Terms of Reference
1.5	Permission of drawl of water shall be pre-requisite for consideration of EC.
1.6	Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986
1.7	The washery shall not be located in wild life sanctuary & eco-sensitive zones areas and also minimum 1 km from the distance from the boundary of Wild life sanctuaries
1.8	A three -tier thick Green belt should be developed surrounding the washery comprising atleast 33% of the total land aquired for washery plant and a time bound budgetary plan with the species selected and survival rate to be provided in the EIA/EMP report .
1.9	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 time bound Action Plan and budgetary provisions be submitted in tabular form in EIA/ EMP report. 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.

Additional Terms of Reference

N/A

Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Quantity	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
Clean Coal	Clean Coal	0.61	Mn Te	Rail	Clean coal with ash% upto 18%
Washed coal (power)	Washed coal (power)	0.54	Mn Te	Rail	Washed coal with ash% upto 34%
3rd Product	3rd Product	0.35	Mn Te	Combination of two or three modes	Tertiary product with Ash% upto 63.2%



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State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004

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website: www.jseiaa.in

Letter No.- EC/SEIAA/2024-25/3124/2024/

Ranchi, Date :

To: **Shri Raj Kumar,**
HoD (Env.),
M/s Central Coalfields Limited (CCL),
Darbanga House, P.O. - Ranchi,
District – Ranchi, Jharkhand – 834001.

Sub: Prescribing of ToR to “**New Sawang Coking Coal Washery (1.5 MTPA) of M/s Central Coalfields Limited (CCL), Village : Sawang, Block : Gumia, District : Bokaro, Jharkhand (7.82 Ha)**” (Proposal No. : SIA/JH/CMIN/ 418208/2024) – regarding.

Ref: Your application no. : SGW/PO/New Washery/296, dated : 15.05.2024.

Sir,

It is in reference to the project to “**New Sawang Coking Coal Washery (1.5 MTPA) of M/s Central Coalfields Limited (CCL), Village : Sawang, Block : Gumia, District : Bokaro, Jharkhand (7.82 Ha)**” along with the application in the prescribed format (Form-1) and a copy of the pre-feasibility report and approved mine plan to prescribe the ToRs for undertaking detailed EIA study for the purpose of obtaining environmental clearance under the provisions of the EIA Notification, 2006 in respect of the above mentioned project.

This is a new project which has been taken for appraisal on 18.05.2024.

Project Category : B1 – 2(a) Coal washeries : Application for Terms of reference (ToR).

EC Application for: Coking Coal Washery with ROM Coal Feed of 1.5 MTY

The proposal was considered by the committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the Project Proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 2(a) Coal washeries as per EIA Notification, 2006.

In order to meet the requirement of increasing demand of steel sector and reduce the import of coking coal, CCL intends to set up a coking coal washery near existing Sawang Washery at Kathara Area, East Bokaro Coalfield, Distt- Bokaro with raw coal linkage from Pipradih-Sawang, Jarangdih & Godo OCP. The assured raw coal throughput capacity of the washery will be 1.5 Mtpa on ‘arb’ (as received basis).

The proposed site of the washery is located in the vicinity of existing Sawang Washery of CCL in East Bokaro Coalfield, Kathara Area, District- Bokaro, Jharkhand. An area of about 6.32 Ha land (including green belt) for construction of New Sawang Washery and 1.50 Ha for temporary 3rd product storage has been identified by CCL.

The New Sawang Coking Coal washery is proposed to be set up on Build-Own-Operate (BOO) concept. The washery has been envisaged to produce three products viz. metallurgical clean coal for use in steel plants, middlings for use in thermal power stations and 3rd product. The washing process has been selected keeping in view the qualitative requirement of steel plants. It has been envisaged to crush entire coal down to (-) 13mm. Treatment of 13-0.5 mm coal in two stage HM cyclone and beneficiation of -0.5mm size fraction by froth flotation have been envisaged.

Project & Location Details:

Sl	Parameter	Details
1	Project Name	: New Sawang Coking Coal Washery
2	Project Proponent	: Shri Umesh Kumar, Project Officer, Sawang Washery
3	Address	: Village: Sawang, Block: Gumia, Distt. : Bokaro, Jharkhand
4	Area	: Ha: 7.82 ha Acres: 19.33 Acres
5	Type of Land	: Non-Forest Land: 7.82 Ha
6	Project Cost	: 338 Crore
7	New or Expansion	: New
8	Raw Coal Linkage	: Pipradih-Sawang, Jarangdih, Godo
9	Product Linkage	: Steel Plants of SAIL & RNIL (Washed Coal) Thermal Power Plants of NTPC, DVC, BTPS (Washed Power Coal & 3 rd Product)
10	Project Life	: 21 years including construction period being 3 years
11	Man power	: 150
12	Water Requirement	: 800 KL/Day
13	Water Source	: Mine seepage & rain water stored in mine sump of Pipradih OCP
14	DG Set / power	: 5.0 MVA for operation & maintenance of the proposed washery will be provided through Sawang colliery sub-station (voltage-11kV) at a distance of 200 m (approx.) from the proposed washery site.
15	Crusher	: Yes (within washery building)
16	Nearest Water Body	: Konar River (0.5 KM)
17	Nearest Habitation	: Gomia (4 KM)
18	Nearest Rail Station	: Gomia (4 KM)
19	Nearest Airport	: Ranchi (110 KM)
20	Nearest Forest	: Notified Forest (2 KM)
21	Road & Highways	: NH320 (29 KM)

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CO-ORDINATES

1	Latitude	From 23° 47' 42.560'' N	To 23° 47' 57.396'' N
2	Longitude	From 85° 50' 50.12'' E	To 85° 51' 8.672'' E

LAND DETAILS:

SN	Khata No	Plot No	Area in Ha	SN	Khata No	Plot No	Area in Ha
1	80	1446	0.016	37	19	1575	0.008
2	32	1453	0.036	38	21	1601	0.077
3	33	1454	0.024	39	16	1602	0.065
4	40	1455	0.02	40	19	1603	0.105
5	92	1456	0.008	41	17	1604	0.105
6	43	1457	0.02	42	19	1617	0.142
7	71	1458	0.186	43	16	1618	0.008
8	70	1459	0.049	44	16	1619	0.097
9	71	1460	0.004	45	16	1620	0.032
10	19	1481	0.008	46	16	1621	0.061
11	16	1483	0.008	47	16	1622	0.049
12	27	1484	0.008	48	19	1623	0.109
13	19	1487	0.02	49	16	1625	0.105
14	24	1488	0.02	50	19	1627	0.012
15	21	1489	0.008	51	19	1628	0.073
16	19	1490	0.004	52	16	1629	0.085
17	27	1491	0.024	53	92	1630	0.012
18	71	1494	0.081	54	92	1631	0.004
19	71	1495	0.024	55	16	1632	0.004
20	71	1496	0.02	56	21	1633	0.121
21	19	1497	0.004	57	16	1636	0.016
22	24	1498	0.057	58	92	1637	0.214
23	16	1505	0.024	59	71	1638	0.38
24	24	1506	0.032	60	32	1639	0.15
25	19	1507	0.008	61	32	1640	0.016
26	63	1508	0.024	62	19	1642	0.004
27	32	1509	0.04	63	19	1643	0.085
28	70	1510	0.069	64	19	1644	0.085
29	71	1511	0.057	65	21	1645	0.004
30	32	1512	0.024	66	21	1646	0.032
31	40	1513	0.008	67	21	1647	0.231
32	40	1514	0.04	68	19	1648	0.065
33	37	1515	0.008	69	19	1649	0.028
34	63	1516	0.069	70	19	1650	0.008





SN	Khata No	Plot No	Area in Ha	SN	Khata No	Plot No	Area in Ha
35	27	1541	0.04	71	24	1651	0.065
36	24	1569	0.121	72	19	1652	0.024

SN	Khata No	Plot No	Area in Ha	SN	Khata No	Plot No	Area in Ha
73	21	1653	0.045	109	18	1547 (P)	0.028
74	27	1654	0.045	110	24	1564 (P)	0.036
75	21	1656	0.049	111	24	1566 (P)	0.004
76	27	1657	0.073	112	93	1568 (P)	0.162
77	27	1658	0.085	113	27	1570 (P)	0.02
78	24	1660	0.081	114	19	1572 (P)	0.004
79	24	1661	0.065	115	21	1574 (P)	0.008
80	24	1662	0.125	116	19	1578 (P)	0.016
81	70	1663	0.376	117	27	1580 (P)	0.02
82	40	1669	0.008	118	21	1581 (P)	0.016
83	43	1677	0.194	119	93	1582 (P)	0.085
84	37	1682	0.13	120	92	1583 (P)	0.008
85	27	1684	0.154	121	21	1584 (P)	0.004
86	16	1685	0.194	122	27	1594 (P)	0.028
87	19	1686	0.065	123	24	1595 (P)	0.02
88	16	1687	0.081	124	16	1596 (P)	0.024
89	19	1688	0.036	125	21	1597 (P)	0.024
90	16	1689	0.081	126	16	1598 (P)	0.065
91	27	1690	0.04	127	16	1605 (P)	0.02
92	24	1692	0.081	128	93	1608 (P)	0.02
93	66	1699	0.045	129	16	1613 (P)	0.032
94	80	1700	0.045	130	21	1616 (P)	0.053
95	80	1701	0.016	131	27	1626 (P)	0.166
96	19	1702	0.04	132	93	1664 (P)	0.089
97	63	1127 (P)	0.081	133	37	1676 (P)	0.061
98	69	1403 (P)	0.032	134	69	1678 (P)	0.036
99	54	1404 (P)	0.073	135	24	1681 (P)	0.032
100	80	1448 (P)	0.02	136	27	1691 (P)	0.121
101	37	1449 (P)	0.012	137	43	1695 (P)	0.016
102	66	1452 (P)	0.028	138	43	1696 (P)	0.061
103	19	1492 (P)	0.016	139	66	1704 (P)	0.004
104	24	1493 (P)	0.125	Total (in Ha)			7.82
105	27	1500 (P)	0.004				
106	30	1517 (P)	0.012				
107	66	1539 (P)	0.012				
108	70	1540 (P)	0.065				

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Process Details:

The washery has been designed for a throughput capacity of 1.5 Mty of raw coal per annum. The washery will produce three products viz. clean coal for steel plants, washed coal (power) for thermal power stations and 3rd product (Tertiary Product).

It has been planned to crush entire coal down to (-) 13mm. Treatment of 13-0.5mm coal in two stage HM cyclone and beneficiation of -0.5mm size fraction by froth flotation have been envisaged.

The proposed balance of product is given below:

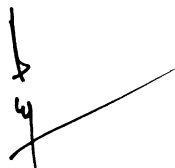
Product	Wt%	Ash%	Qty (Mty)
Clean coal	40.8	18	0.61
Washed Coal Power	36.2	34	0.54
3rd Product	23.0	63.2	0.35
Total	100	34.2	1.50

Process Description:**Raw Coal Section:**


- Supply of RoM coal from linked mines by road to washery premises.
- Receiving of RoM coal in the receiving hopper at washery premises.
- Reclaiming -100mm coal from receiving hopper by vibro-feeder and conveying the same to screening & crushing house.
- Screening of (-)100 mm coal in double deck vibrating screen at 50/13mm aperture to obtain two size fraction i.e. 100-13 mm & -13mm size fraction.
- Crushing of 100-13 mm size coal down to 50mm size in primary Double Roll Crusher.
- Screening of crushed coal at 13mm aperture vibrating screen, (+)13mm fraction is further crushed to (-)13 mm in secondary crusher (Double Roll) & (-)13m fraction is mixed with undersize product obtained from double deck vibrating screen.
- Crushed coal obtained from secondary crusher is recirculated back to 13mm aperture vibrating screen to check oversize fraction.
- Storage of entire -13 mm size fraction in a 3000 t stack tube (ground storage) with reclamation arrangement.

Washing Section:

- Conveying of -13mm coal from raw coal storage to washery building and conveying the same to coal tank.
- Desliming of -13mm coal from coal tank in desliming screens to produce two size fractions viz. 13-0.5 mm & -0.5 mm.



- c) Washing of 13-0.5 mm size fraction in Primary HM cyclones to produce clean coal (i.e. overflow of Primary HM cyclone) & sinks (i.e. underflow of Primary HM cyclones).
- d) Washing sinks from Primary HM Cyclones in Secondary HM cyclone to produce washed coal (power) (i.e. overflow of secondary HM cyclone) & 3rd product (i.e. underflow of Secondary HM cyclones).
- e) Dewatering of clean coal from Primary HM cyclones in sieve bend-cum-drain & rinse screens followed by further dewatering in centrifuge.
- f) Dewatering of washed coal (power) in sieve bend-cum-drain & rinse screen followed by further dewatering in centrifuge.
- g) Dewatering of 3rd products from Secondary HM cyclones in D&R screen.
- h) Recovery of media by magnetic separators.
- i) Slimes (-0.5mm) obtained from underflow of desliming screens & screen drain of centrifuges is taken to fine coal tank and fed to Froth Flotation (FF) Plant for treatment of fine coal.
- j) Beneficiation of -0.5 mm coal (fine coal) by froth flotation to produce concentrate (clean coal) and tailings.
- k) Thickening of concentrate in concentrate thickener followed by dewatering in Horizontal Travelling Vacuum Belt Filter
- l) Dewatered product of HTVBF is mixed with the clean coal obtained from Primary HM Cyclones and effluent is recycled to concentrate thickener.
- m) Thickening of tailings in tailing thickener followed by dewatering in Multi Roll Belt Filter.
- n) Dewatered product is mixed either with washed coal (power) or 3rd product based on the quality (ash%) of the tailings and effluent is recycled to tailing thickener.
- o) Recycling of clarified water (i.e., overflow of thickeners) for plant re-use.
- p) Conveying of dewatered 13-0.5 mm clean coal from Primary HM cyclone along with -0.5 mm dewatered fine clean coal from froth flotation and stocking of clean coal in covered clean coal storage (4,000 t).
- q) Conveying of dewatered 13-0.5 mm washed coal (power) from Secondary HM cyclones and stocking the same in separate washed coal (power) storage (4,000 t).
- r) Conveying of 3rd product from washery building by belt conveyor to 3rd product hopper / Temporary 3rd product storage site adjacent to the proposed washery site prior to sale/disposal of 3rd product.
- s) Reclamation of clean coal and washed coal (power) from their respective covered storage and conveying the same by a set of two nos. of parallel belt conveyors (common for both



washed coal and power coal-operating simultaneously) to respective loading hoppers of Fast Loading Systems on the railway line of Sawang Railway Siding which is approximately 500 meters from proposed washery site. Clean coal and washed coal (power) will be loaded into Railway wagons through separate Fast Loading Systems (3600 tph each) for onward dispatch to consumers.

Process Material Consumption:

Magnetite consumption (t/hr)

Sl. No.	Name of Product	Magnetite Losses in product (t/hr)
1	Clean Coal	0.05
2	Washed Coal (Power)	0.07
3	3rd Product	0.03
Total		0.15

Overall magnetite consumption = 0.5 kg/t of raw coal feed

Reagent consumption for fine coal beneficiation (50 tph) in froth flotation

Sl. No.	Name of Product	Losses (kg/hr)	
		Frother	Collector
1	Clean Coal	3	10
2	3rd Product	2	10
Total		5	20

Frother consumption= 0.1 kg/t of fine coal treated

Collector consumption= 0.4 kg/t of fine coal treated

Receiving of ROM Coal & Dispatch of Products:

ROM Coal from Mine to Washery	Raw coal linkage is proposed from Pipradih-Sawang, Jarangdih & Godo by Road.
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<p>Dispatch of Clean Coal & Washed Power Coal</p>	<p>Clean coal and washed coal (power) from their respective covered storage facilities will be reclaimed and conveyed by a set of two nos. of parallel belt conveyors to be operated simultaneously through two numbers Rapid Loading System on railway line of Sawang which is about 500m from washery site. Separate fast loading system and surge bins of 500 te capacity each have been provided for clean coal and middling.</p>
<p>Dispatch of 3rd Product</p>	<p>The average quantity of 3rd product to be produced from the washery has been estimated as about 0.35 MTY. The 3rd product will be conveyed by belt conveyor to 3rd product hopper/Temporary 3rd product Storage site adjacent to the proposed washery site. The average gross calorific value of the 3rd product from proposed coal washery is expected to fall under G-14 Grade (3100-3400 kcal/kg) which will be disposed or sold by CCL through MoU/e-auction route in line with prevailing MoEF&CC guidelines.</p>

Requirement of Water:

Tentative requirement of Water is around 800 KLD. No groundwater to be utilized, instead water stored in the nearby mining pits is to be utilized which will suffice the washery operation. The quantity of water will be replenished through storm-water during monsoon.

Land Type Breakup:

SL	Pattern	Area (in Ha)
1	Non-Forest Land	7.82

Land Use During Mining:

SN	Component	Total Area
1	Main Plant & Allied infrastructure	3.75
2	Stock pile and loading bunker	0.33
3	Slurry pond	0.34
4	Site for 3rd Product Storage	0.79
5	Green Belt	2.61
Total (in Ha)		7.82

Signature

Signature

Signature

Risk and Hazard Mitigation measures :

- a) Electrical installations will be designed in accordance with prescribed safety rules to ensure that electrical fire possibility is minimized.
- b) At the operational stage, all safety rules will be followed.
- c) Display of warning signs in operational area against fire and proper storage of inflammable material like diesel, etc.
- d) Provision of adequate firefighting arrangements with a ground water tank dedicated to firefighting exclusively.
- e) Organizing firefighting drills on regular basis and Installation of Portable fire fighters at strategic locations all over the plant.
- f) Installation of smoke detectors with Fire Alarm.
- g) Details of Risk Management Plan shall be prepared and presented in EIA/EMP report.

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Land has been acquired vide S.O no. 5222R dt 04.05.1922.
2	CO	:	The CO, Gomia vide letter no. 350, dated 01.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II.
3	DFO Wild Life	:	DFO, Wildlife Division, Hazaribagh vide letter no. 1262, dated 03.07.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Sanctuary.
4	DFO Forest Distance	:	Division Forest Officer, Bokaro Forest Division vide letter no. 73, dated 11.01.2024 certified that the distance of reserved / protected forest land is more than 250 meter from proposed project site.
5	Pre-Feasibility Report Approval	:	Pre-Feasibility Report approved by Company Secretary of Central Coalfields Ltd., Darbhanga House, Ranchi vide Ref. no. C.S./B.M. / 537 / 2024 /67, dated 12.03.2024.

SEAC, Jharkhand has suggested the ToRs in its 112th meeting held on 16th, 17th, 18th and 19th May, 2024 in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC OM dated 12.12.18 for undertaking detailed EIA / EMP study and SEIAA, Jharkhand has approved the ToRs in its 112th meeting held on 23rd & 24th May, 2024.

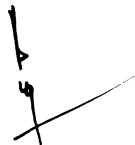
The TORs prescribed for undertaking detailed EIA study are as follows:

Specific Condition:

1. Complete material balance to be provided for all the input & output.
2. Detailed water balance to be provided.



3. **Details of all the waste generation in the project along with handling and management of the same.**
4. **Primary study to be carried out for Socio Economy, Ecology & Bio-Diversity, Geology and Hydro Geology.**
5. **Details of settling pond and cycle of concentration.**
6. **Details of all the pollution control measures including ETP & STP, if any.**
7. **Details of fire control management plan.**
8. 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 washery preferably through closed conveyer belt to avoid air pollution.
9. The washery shall not be located in eco-sensitive zones areas.
10. 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.
11. A thick Green belt of about 50 m width should be developed surrounding the washery.
12. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
13. The EIA-EMP Repot 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.
14. 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. alongwith the comments of the Chief Wildlife Warden of the State Government.
15. 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.
16. 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.
17. 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.

18. 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.
19. 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.
20. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.
21. O.M. no. J-II013/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.
22. 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.
23. Analysis of samples indicating the following be submitted:-
 - a. Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, Sand heavy levels of metals such as Hg, As, Pb, Cr etc).
 - b. Characteristics and quantum of coal after washing.
 - c. Characteristics and quantum of coal rejects.
24. 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 conveyor belt. If it is far away, the transportation should be by rail as far as possible.
25. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.
26. 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.
27. 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.
28. Permission of drawl of water shall be pre-requisite for consideration of EC.
29. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986.
30. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.
31. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF & CC, Govt. of India.

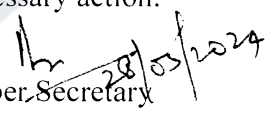
Sd/-
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand

Memo No : EC/SEIAA/2024-25/3124/2024/ 89

Dated: 28/05/2024

Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi for information and necessary action.
2. Regional Office, Ministry of Environment, Forest and Climate Change, Govt. of India, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
3. Member Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.


Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand



