

FORM-V
ENVIRONMENTAL STATEMENT
Environmental statement for the financial year ending 31stMarch, 2022

Part – A

- i) Name & Address of the owner/ occupier of the industry operation or process (Name of the Project Officer/ Sub-Area Manager & Office address to be given) : Dibyajiban Si, Project Officer Bhubaneswari OCP, JA. P.O: Dera Colliery, Dist: Angul, PIN 759103.
- ii) Industry Category : Primary (Coal Mining Operation)
- iii) Production Capacity (Coal production during the year 2019-20) : 28MT (28MT)
- iv) Year of establishment : 2007
- v) Date of the last Environmental Statement submitted : 23.09.2021

Part – B

Water & Raw Material Consumption

Note: Average Water Consumption (Cu-m/ day) for the whole year is given. Raw material consumption is given per unit of coal produced.

(I) Water Consumption (Cu-m/ day):

Ser No.	Industrial/ Mining	Consumption in Cu-m/ day
1. a	Haul Road Dust Suppression	1200
b	Dust Suppression at CHP	NA
c	Dust Suppression at Siding	80
d	Fire Fighting	50
e	Workshop	12
f	Others	-
2.	Domestic	28
3.	Total in kℓ/ day	1370

Name of the Product	Water Consumption per unit of product (ℓ/ t)	
	2020-21	2021-22
Coal	17.75	17.85

(II) Raw Material Consumption (per ton of coal):

Name of Raw Material	Consumption of Raw Material (per ton of Coal produced)	
	2020-21	2021-22
H.S. Diesel (ℓ/ t)	0.925 (Dept.+Cont.)	0.87(Dept.+Cont.)
Petrol (ℓ/ t)	Nil	Nil
Lubricants (ℓ/ t)	0.006 (Dept.+Cont.)	0.002(Dept.+Cont.)
Electricity (Units/ t)	0.237 (Dept.+Cont.)	0.412(Dept.+Cont.)
Explosives (kg/ t)	0.17	0.13

Part – C

Pollution Discharged to Environment/ Unit of Output

(Parameter as specified in the 'Consent' issued)

Pollutants	Quantity of pollutants discharged (mass/ day)	Concentrations of pollutants in discharges (mass/ volume)			Percentage variation from prescribed standards with reasons
Water (annual average)					
		Mine Effluent	OGT Outlet	STP Outlet	
TSS (mg/ℓ)	Not possible to quantify	11	-	-	Within the prescribed limit.
BOD mg/ℓ)		13.5	-	-	
COD (mg/ℓ)		44.5	-	-	
pH		7.59	-	-	
O & G (mg/ℓ)		<4.0	-	-	
Air (Ambient air quality of one station (S-E of Mine) – annual average)					
SPM ($\mu\text{g}/\text{m}^3$)	Not possible to quantify	152.00			Within the prescribed limit.
PM10 ($\mu\text{g}/\text{m}^3$)		82.47			
PM2.5 ($\mu\text{g}/\text{m}^3$)		53.47			
SO ₂ ($\mu\text{g}/\text{m}^3$)		5.84			
NO _x ($\mu\text{g}/\text{m}^3$)		5.37			

Part – D

Hazardous Wastes

As specified under Hazardous Wastes (Management & Handling) Rules, 1989.

Hazardous Waste	Total Quantity (kg)	
	During the current financial year (2020-21)	During the current financial year (2021-22)
(a) From process :		
i. Burnt Oil in Workshops	112370 L	65500 L
ii. Oil soaked filters	1220 Nos.	520 Nos
(b) From pollution control facilities:		
i. Oil/ Oil emulsion recovery from Oil & Grease Trap	450 KG	460 KG
ii. Oily sludge	0.45 T	0.46 T
iii. Chemical Waste(if any)	-	-

Part – E

Solid Wastes (other than hazardous)

Particulars	Total Quantity	
	During the current financial year (2020-21)	During the current financial year (2021-22)
(a) From process (Top soil and Over burden)	18.211 mm ³	13.349 Mm ³
(b) From pollution control facilities (STP & Sed-Pond Sludge)	-	-
(c) 1- Quantity recycled or re-utilized (OB back-filled)	18.211 mm ³	13.349 Mm ³
2- Sold	-	-
3- Disposed	-	-

Part – F

Please specify the characteristics (in terms of concentration & quantum) of hazardous as well as solid waste and indicate the disposal practice adopted for both these categories of wastes.

(I) Hazardous Wastes:

Name of Hazardous Wastes	Quantity generated in the year 2021-22	Disposal Practices
Burnt Oil, etc. (ℓ) (from W/Shop)	65500 L	By e-auction to authorized parties
Oil soaked filters(kg) (from W/Shop)	520 Nos	Disposed in impervious pit under covered shed.
Oil & Grease (kg) (from ETP/OGT)	460 KG	Disposed in impervious lined pit under covered shed.
Oily Sludge (te.) (from ETP/OGT)	0.46 T	Disposed in impervious pit under covered shed.
Oil emulsion	-	-
Chemical Waste if any (kg)	-	-
Battery (nos.)	294 nos.	By e-auction to authorized parties

Note: A detailed note on disposal practices of the above should be given separately.

(II) Solid Wastes:

Solid Waste	Quantity generated in the year 2021-22	Disposal Practices
Top Soil (m ³)	0.307 Mm ³	Stored separately for reclamation of land.
OB (m ³)	13.042 Mm ³	Utilised for backfilling
STP & Sed-Pond Sludge	NA	-

Land Reclamation & OB disposal – progressive till March, 2022:

	Area (ha.)	OB Volume/ Nos. of Plants
1) External OB dump	88.25	35.828 Mm ³
2) Excavated land	442.83	157.660 Mm ³
3) Land affected (1+2)	531.08	-
4) Backfilled (out of 2)	187.15	109.492 Mm ³ #
5) Land physically reclaimed (out of 3)	121.70	-
6) Land biologically reclaimed (out of 3)	107.00*	35000 Nos

*includes the biological reclamation of external OB dump area of 75 Ha.

#12.34 Mm³ dumped in Ananta OCP in the year 2020-21.

Part – G

Impact of pollution control measures on conservation of natural resources and consequently on cost of production.

In order to carry out mining in an eco-friendly manner, a detailed Environmental Management Plan (EMP) was prepared by Regional Institute-VII of CMPDIL. The main pollution control measures suggested in EMP along with the measures implemented so far have been summarized in the Table-1.1 to 1.3.

Table – 1.1

Air Pollution Control Measures

Sl. No.	EMP Provisions	Whether provided or not	Remarks
1	Water sprinkling and grading of all roads to minimize air-borne dust from vehicles.	Provided	Mobile water tankers, mist type sprinklers & graders are provided.
2	Biological reclamation of land.	Provided	35000 nos. of plants have been planted over technically reclaimed/backfilled area.
3	Green belt around mine & infrastructures.	Provided	By plantation.
4	Drills fitted with dust control devices.	Provided	Wet drilling technology
5	Dust suppression/ dust extraction system to be provided in CHP.	NA	There is no CHP
6	Improved maintenance of plant & machinery.	Provided	-
7	Mechanized coal transportation system.	Provided	-

Table – 1.2**Water Pollution Control Measures**

Sl. No.	EMP Provisions/ Additional precautions	Whether provided or not	Remarks
1	Mine water is to be collected in central sump on dip side of pit. This will act as sedimentation lagoon.	Provided	
2	Run-off around reclamation area will be controlled by providing catch drains and sedimentation lagoon combination.	Provided	-
3	Surface run-off from external dump would be collected through a series of contour drains which would be connected to a water retention pond. The clear water from this pond will be re-utilized	Provided	-
4	Domestic waste water will be treated in screens, oxidation pond/ aerated lagoon. Sanitary waste to be disposed off into septic tank & soak-pit.	Provided	-
5	Workshop effluents will be treated in oil & grease trap & sedimentation tank.	Provided	-
6	Zero discharge from mine shall be maintained.	Maintained	-
7	Piezometers shall be installed for measurement of under-ground water depth and its quality	Provided	1. Piezometer MTP-08 at Chakadola High School 2. MTP-07 at BCML Workshop.

Table – 1.3**Land Reclamation**

Sl. No.	EMP Provisions	Whether provided or not	Remarks
1	Top soil Management: Proper stripping, Storage, and Relocation of top soil.	Provided	Dumped in a separate specified area.
2	Physical Reclamation of OB Dump: Proper reshaping and re-grading of top surface, Providing drainage arrangements and top soil spreading on external and internal dumps.	Provided	Provided in reclaimed area.
3	Biological Reclamation: Plantation of suitable species of herbs, shrubs & indigenous trees over technically reclaimed dumps.	Provided	35000 nos. of plants have been planted over technically reclaimed/ backfilled area.

Note
 Air M. Station
 CSE of mine

Note
 Air. misting pump
 CSE of mine

Note
 Air. misting pump
 CSE of mine

Project Ent. Office
 (CABSR - OCP)



GENERAL INFORMATION
 PROJECT NAME: MAHARAJA COALFIELD
 PROJECT NO: 11/2021
 PROJECT LOCATION: MAHARAJA COALFIELD, DISTRICT: JALPAIGURI, WEST BENGAL, INDIA
 PROJECT AREA: 40.00 HA
 PROJECT PERIOD: 12.00 Months
 PROJECT START DATE: 01.11.2021
 PROJECT END DATE: 31.10.2022

PRODUCTION PROGRAMME FOR 2021-22

QUANTITIES	QUANTITIES
PRODUCTION	0.00
RESERVE	0.00
STOCK	0.00
TOTAL	0.00

YEAR	COAL (MT)	TEMPERATURE (°C)
2021-22	0.00	27.00
2022-23	0.00	27.00
2023-24	0.00	27.00
2024-25	0.00	27.00
2025-26	0.00	27.00
2026-27	0.00	27.00
2027-28	0.00	27.00
2028-29	0.00	27.00
2029-30	0.00	27.00
2030-31	0.00	27.00
2031-32	0.00	27.00
2032-33	0.00	27.00
2033-34	0.00	27.00
2034-35	0.00	27.00
2035-36	0.00	27.00
2036-37	0.00	27.00
2037-38	0.00	27.00
2038-39	0.00	27.00
2039-40	0.00	27.00
2040-41	0.00	27.00
2041-42	0.00	27.00
2042-43	0.00	27.00
2043-44	0.00	27.00
2044-45	0.00	27.00
2045-46	0.00	27.00
2046-47	0.00	27.00
2047-48	0.00	27.00
2048-49	0.00	27.00
2049-50	0.00	27.00
2050-51	0.00	27.00
2051-52	0.00	27.00
2052-53	0.00	27.00
2053-54	0.00	27.00
2054-55	0.00	27.00
2055-56	0.00	27.00
2056-57	0.00	27.00
2057-58	0.00	27.00
2058-59	0.00	27.00
2059-60	0.00	27.00
2060-61	0.00	27.00
2061-62	0.00	27.00
2062-63	0.00	27.00
2063-64	0.00	27.00
2064-65	0.00	27.00
2065-66	0.00	27.00
2066-67	0.00	27.00
2067-68	0.00	27.00
2068-69	0.00	27.00
2069-70	0.00	27.00
2070-71	0.00	27.00
2071-72	0.00	27.00
2072-73	0.00	27.00
2073-74	0.00	27.00
2074-75	0.00	27.00
2075-76	0.00	27.00
2076-77	0.00	27.00
2077-78	0.00	27.00
2078-79	0.00	27.00
2079-80	0.00	27.00
2080-81	0.00	27.00
2081-82	0.00	27.00
2082-83	0.00	27.00
2083-84	0.00	27.00
2084-85	0.00	27.00
2085-86	0.00	27.00
2086-87	0.00	27.00
2087-88	0.00	27.00
2088-89	0.00	27.00
2089-90	0.00	27.00
2090-91	0.00	27.00
2091-92	0.00	27.00
2092-93	0.00	27.00
2093-94	0.00	27.00
2094-95	0.00	27.00
2095-96	0.00	27.00
2096-97	0.00	27.00
2097-98	0.00	27.00
2098-99	0.00	27.00
2099-00	0.00	27.00
2100-01	0.00	27.00
2101-02	0.00	27.00
2102-03	0.00	27.00
2103-04	0.00	27.00
2104-05	0.00	27.00
2105-06	0.00	27.00
2106-07	0.00	27.00
2107-08	0.00	27.00
2108-09	0.00	27.00
2109-10	0.00	27.00
2110-11	0.00	27.00
2111-12	0.00	27.00
2112-13	0.00	27.00
2113-14	0.00	27.00
2114-15	0.00	27.00
2115-16	0.00	27.00
2116-17	0.00	27.00
2117-18	0.00	27.00
2118-19	0.00	27.00
2119-20	0.00	27.00
2120-21	0.00	27.00
2121-22	0.00	27.00
2122-23	0.00	27.00
2123-24	0.00	27.00
2124-25	0.00	27.00
2125-26	0.00	27.00
2126-27	0.00	27.00
2127-28	0.00	27.00
2128-29	0.00	27.00
2129-30	0.00	27.00
2130-31	0.00	27.00
2131-32	0.00	27.00
2132-33	0.00	27.00
2133-34	0.00	27.00
2134-35	0.00	27.00
2135-36	0.00	27.00
2136-37	0.00	27.00
2137-38	0.00	27.00
2138-39	0.00	27.00
2139-40	0.00	27.00
2140-41	0.00	27.00
2141-42	0.00	27.00
2142-43	0.00	27.00
2143-44	0.00	27.00
2144-45	0.00	27.00
2145-46	0.00	27.00
2146-47	0.00	27.00
2147-48	0.00	27.00
2148-49	0.00	27.00
2149-50	0.00	27.00
2150-51	0.00	27.00
2151-52	0.00	27.00
2152-53	0.00	27.00
2153-54	0.00	27.00
2154-55	0.00	27.00
2155-56	0.00	27.00
2156-57	0.00	27.00
2157-58	0.00	27.00
2158-59	0.00	27.00
2159-60	0.00	27.00
2160-61	0.00	27.00
2161-62	0.00	27.00
2162-63	0.00	27.00
2163-64	0.00	27.00
2164-65	0.00	27.00
2165-66	0.00	27.00
2166-67	0.00	27.00
2167-68	0.00	27.00
2168-69	0.00	27.00
2169-70	0.00	27.00
2170-71	0.00	27.00
2171-72	0.00	27.00
2172-73	0.00	27.00
2173-74	0.00	27.00
2174-75	0.00	27.00
2175-76	0.00	27.00
2176-77	0.00	27.00
2177-78	0.00	27.00
2178-79	0.00	27.00
2179-80	0.00	27.00
2180-81	0.00	27.00
2181-82	0.00	27.00
2182-83	0.00	27.00
2183-84	0.00	27.00
2184-85	0.00	27.00
2185-86	0.00	27.00
2186-87	0.00	27.00
2187-88	0.00	27.00
2188-89	0.00	27.00
2189-90	0.00	27.00
2190-91	0.00	27.00
2191-92	0.00	27.00
2192-93	0.00	27.00
2193-94	0.00	27.00
2194-95	0.00	27.00
2195-96	0.00	27.00
2196-97	0.00	27.00
2197-98	0.00	27.00
2198-99	0.00	27.00
2199-00	0.00	27.00
2200-01	0.00	27.00
2201-02	0.00	27.00
2202-03	0.00	27.00
2203-04	0.00	27.00
2204-05	0.00	27.00
2205-06	0.00	27.00
2206-07	0.00	27.00
2207-08	0.00	27.00
2208-09	0.00	27.00
2209-10	0.00	27.00
2210-11	0.00	27.00
2211-12	0.00	27.00
2212-13	0.00	27.00
2213-14	0.00	27.00
2214-15	0.00	27.00
2215-16	0.00	27.00
2216-17	0.00	27.00
2217-18	0.00	27.00
2218-19	0.00	27.00
2219-20	0.00	27.00
2220-21	0.00	27.00
2221-22	0.00	27.00
2222-23	0.00	27.00
2223-24	0.00	27.00
2224-25	0.00	27.00
2225-26	0.00	27.00
2226-27	0.00	27.00
2227-28	0.00	27.00
2228-29	0.00	27.00
2229-30	0.00	27.00
2230-31	0.00	27.00
2231-32	0.00	27.00
2232-33	0.00	27.00
2233-34	0.00	27.00
2234-35	0.00	27.00
2235-36	0.00	27.00
2236-37	0.00	27.00
2237-38	0.00	27.00
2238-39	0.00	27.00
2239-40	0.00	27.00
2240-41	0.00	27.00
2241-42	0.00	27.00
2242-43	0.00	27.00
2243-44	0.00	27.00
2244-45	0.00	27.00
2245-46	0.00	27.00
2246-47	0.00	27.00
2247-48	0.00	27.00
2248-49	0.00	27.00
2249-50	0.00	27.00
2250-51	0.00	27.00
2251-52	0.00	27.00
2252-53	0.00	27.00
2253-54	0.00	27.00
2254-55	0.00	27.00
2255-56	0.00	27.00
2256-57	0.00	27.00
2257-58	0.00	27.00
2258-59	0.00	27.00
2259-60	0.00	27.00
2260-61	0.00	27.00
2261-62	0.00	27.00
2262-63	0.00	27.00
2263-64	0.00	27.00
2264-65	0.00	27.00
2265-66	0.00	27.00
2266-67	0.00	27.00
2267-68	0.00	27.00
2268-69	0.00	27.00
2269-70	0.00	27.00
2270-71	0.00	27.00
2271-72	0.00	27.00
2272-73	0.00	27.00
2273-74	0.00	27.00
2274-75	0.00	27.00
2275-76	0.00	27.00
2276-77	0.00	27.00
2277-78	0.00	27.00
2278-79	0.00	27.00
2279-80	0.00	27.00
2280-81	0.00	27.00
2281-82	0.00	27.00
2282-83	0.00	27.00
2283-84	0.00	27.00
2284-85	0.00	27.00
2285-86	0.00	27.00
2286-87	0.00	27.00
2287-88	0.00	27.00
2288-89	0.00	27.00
2289-90	0.00	27.00
2290-91	0.00	27.00
2291-92	0.00	27.00
2292-93	0.00	27.00
2293-94	0.00	27.00
2294-95	0.00	27.00
2295-96	0.00	27.00
2296-97	0.00	27.00
2297-98	0.00	27.00
2298-99	0.00	27.00
2299-00	0.00	27.00
2300-01	0.00	27.00

YEAR 2021-22
 COAL QUANTITY: 0.00 MT
 TEMPERATURE: 27.00 °C

MAHARAJA COALFIELDS LIMITED
 SHUBANSHARI OCP
 SHUBANSHARI AREA

SUB: WORKING PLAN
 PLAN NO: POSSESSION/2