

FORM-V

ENVIRONMENTAL STATEMENT

Environmental statement for the financial year ending 31st Mar, 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) : Shri Raj Kumar Bajaj, Project Officer, Kanika RLS, PO: Basundhara, Dist.: Sundargarh (Odisha). PIN: 770076.
- ii) Industry Category :Green
- iii) Production Capacity (Coal dispatch during the year 2021-22) :8 MTPA (7604453.24Te)
-
- iv) Year of establishment : 07.11.2005
- 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	-
b	Dust Suppression at CHP	-
c	Dust Suppression at Siding	221
d	Fire Fighting	36
e	Workshop	-
f	Others	-
2.	Domestic	50
3.	Total in kl/ day	307Kl/day

Name of the Product	Water Consumption per unit of product (l/ t)	
	2020-21	2021-22
Coal	56.16	14.74

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

Name of Raw Material	Consumption of Raw Material (per tonne of Coal produced)	
	2020-21	2021-22
H.S. Diesel (ℓ/ t)	0.087	0.097
Petrol (ℓ/ t)	Nil	Nil
Lubricants (ℓ/ t)	0.004	0.006
Electricity (Units/ t)	0.046	0.049
Explosives (kg/ t)	N.A	N.A

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
Point of examination :Outlet of Settling Tank (Kanika Siding)					
		Mine Effluent	OGT Outlet	STP Outlet	
TSS (mg/ℓ)	Not possible to quantify	46	-	-	Within permissible limits.
BOD mg/ℓ)		-	-	-	
COD (mg/ℓ)		28	-	-	
pH		7.21	-	-	
O & G (mg/ℓ)		<4.0	-	-	
Air (Ambient air quality of one station-annual average) station : Near Coal Sampling Lab					
SPM ($\mu\text{g}/\text{m}^3$)	Not possible to quantify	175			The environmental parameters are within permissible limits.
PM ₁₀ ($\mu\text{g}/\text{m}^3$)		137			
SO ₂ ($\mu\text{g}/\text{m}^3$)		15.26			
NO _x ($\mu\text{g}/\text{m}^3$)		22.36			
PM _{2.5} ($\mu\text{g}/\text{m}^3$)		44			

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	Taken into the account of Garjanbahal OCP	Taken into the account of Garjanbahal OCP
ii. Oil soaked filters		
(b)From pollution control facilities:		
i. Oil/ Oil emulsion recovery from Oil & Grease Trap	Nil	Nil
ii. Oily sludge	Nil	Nil
iii. Chemical Waste(if any)	Nil	Nil

Part – E
Solid Wastes (other than hazardous)

Particulars	Total Quantity	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
(a) From process (Top soil and Over burden)	N.A.	N.A.
(b) From pollution control facilities (STP & Sed-Pond Sludge)		
(c) 1- Quantity recycled or re-utilized (OB back-filled)		
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)	Taken into the account of Garjanbahal OCP	Transferred to regional store from where it is auctioned to authorized agency.
Oil soaked filters(kg) (from W/Shop)	Taken into the account of Garjanbahal OCP	Stored in impervious pit
Oil & Grease (kg) (from ETP/OGT)	Nil	
Oily Sludge (te.) (from ETP/OGT)	Nil	
Oil imulsion	Nil	
Chemical Waste if any (kg)	Nil	
Battery (nos.)	Nil	

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)	N.A.	N.A.
OB (m ³)	N.A.	N.A.
STP & Sed-Pond Sludge	Nil	N.A.

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

	Area (ha.)	OB Volume/ Nos. of Plants
1) External OB dump	N.A.	N.A.
2) Excavated land		
3) Land affected (1+2)		
4) Backfilled (out of 2)		
5) Land physically reclaimed (out of 3)		
6) Land biologically reclaimed (out of 3)		

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	
2	Biological reclamation of land.	N.A.	
3	Green belt around mine & infrastructures.	Provided	11860 nos. of plants have been planted in and around the infrastructure.
4	Drills fitted with dust control devices.	N.A.	
5	Dust suppression/ dust extraction system to be provided in CHP.	N.A.	CHP does not exist.
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	Drains constructed.
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-utilised	N.A.	
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	Septic Tank with soak pit arrangement has been provided
5	Workshop effluents will be treated in oil & grease trap & sedimentation tank.	Provided	ETP & OGT has been constructed and is under renovation.

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.	N.A.	N.A.
2	Physical Reclamation of OB Dump: Proper reshaping and regrading of top surface, Providing drainage arrangements and top soil spreading on external and internal dumps.		
3	Biological Reclamation: Plantation of suitable species of herbs, shrubs & indigenous trees over technically reclaimed dumps.		

IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION

COST OF ENVIRONMENTAL MANAGEMENT DURING 2021-22 was Rs. 1.12 per Tonne of Coal despatched.

Part – H

Additional measures/ investment proposal for environmental protection including abatement of pollution, prevention of pollution

Head	Amount Rs. In lakhs (approx)
Boundary wall construction	20.00
Wheel Wash System	50.00
Fog Canon	26.55
ETP & OGT construction	5.00
Dust suppression	6.00
Garland drains & check dams	2.00
Consent (SPCB)	0.30
Total	109.85

Part – I

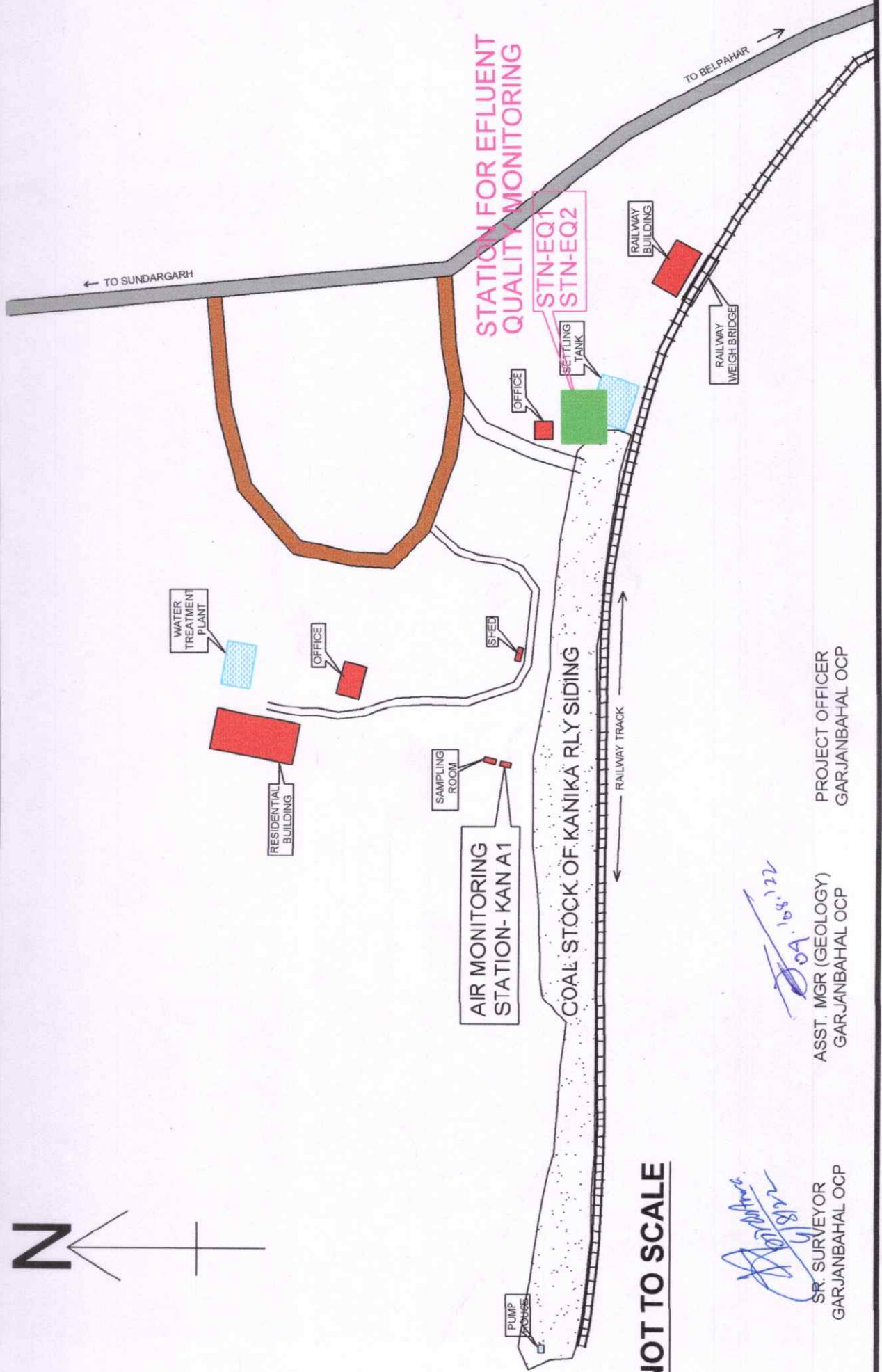
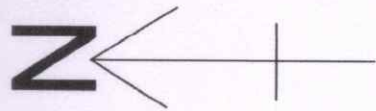
Any other particulars for improving the quality of the environment.

Note: Please attach a plan showing the relevant features like Present Working/ Quarry, External Dump, Back-filling, Plantation, Sedimentation Pond/ MDTP, Oil & Grease Trap/ ETP, Workshop, CHP, STP, etc. and Environmental Monitoring Stations.

Signature of the Project Officer.

(Handwritten signature)
4-8-2022
(with seal)
परियोजना अधिकारी
Project Officer
परियोजना OEP, MGL

PLAN SHOWING KANIKA RAILWAY SIDING



NOT TO SCALE

[Signature]
SR. SURVEYOR
GARJANBAHAL OCP

[Signature] 16.8.122
ASST. MGR (GEOLOGY)
GARJANBAHAL OCP

PROJECT OFFICER
GARJANBAHAL OCP