स्टील ऑथोरिटी ऑफ इंण्डिया लिमिटेड
(भारत सरकार का प्रतिष्ठान)
रॉ मटेरियल्स डिभीजन
मनोहरपुर ओर माइंस
पोस्ट - चिरियां, प० सिंहभुम, झारखण्ड- ८३३१०६
दुरभाष-९३०८१२८७७६,

सेल SAIL

STEEL AUTHORITY OF INDIA LIMITED
(A Government of India Enterprise)
RAW MATERIALS DIVISION
MANOHARPUR ORE MINES
P.O. – CHIRIA, W. Singhbhum, Jharkhand-833106
P Ph. No.9308128776,

Ref. No.MOM/PC/ 6/132

Date: 24-04-2021.

रजिस्ट्री
REGISTERED

To,
The Member Secretary
Jharkhand state Pollution Control Board
Head office, HEC Complex
T.A. Building , Dhurua
Ranchi-834004.

Sub: Environmental Statement for the year 2020-21.

Dear Sir,

Please find the enclosed herewith Environmental Statement for the year 2020-21, in respect of Manoharpur Ore Mines, Chiria. For needful please.

Thanking you,

Yours faithfully,

(S Srinivasa Rao)
AGM (Mining)

Copy to: The Regional officer, JSPCB, Jamshedpur.

सेल SAIL

ENVIRONMENTAL STATEMENT YEAR: 2020-21

Manoharpur Ore Mines

Steel Authority of India Limited
Raw Materials Division
Manoharpur Ore Mine
West Singhbhum (Dist.)
Jharkhand – 833 106

April, 2021

FORM-V
(See rule 14)

Environment Statement for the financial year ending 31st March 2021.

PART A

1. Name and address of the owner/occupier of the industry operation or process. : Manoharpur Ore Mine
P.O- Chiria,
Dist. : Singhbhum (West)
Pin- 833106, Jharkhand

Agent : Shri MKTP Dutta,
General Manager (Mines)

Nominated Owner : Sri H N Rai Director (Technical, Projects & Raw Materials)

2. Industry Category - Primary, Iron Ore Mining
3. Production capacity - 0.75 Million tones / Annum
4. Year of establishment - 1911
5. Date of the last environment Statement submitted - 19-05-2020.

PART B

Water and Raw Materials Consumption

I. Water Consumption KL/day:

Industrial

(a) Cooling of Engine - 5 KL/day
(b) Water Spraying on haul road & Crusher for dust suppression - 85 KL/day
(c) Mislenoius - 20 KL/day

Domestic - 1350 KL/day

Name of product	Process Water Consumption per unit of Product output.	
	During the previous financial year .	During the current financial year.
Iron Ore	0.045 KL/Te	0.059 KL/Te

Details of Water consumption for the year 2020-21.

Permission obtained from Water Resource Department, Govt. Of Jharkhand and agreement has been made with Water Ways Division, Chaibasa on 03.08.2017, for drawl of water from Hamsadagara Nalla to the tune of 0.62 MCM per annum for Manoharpur Ore Mines, Chiria.

As per the agreement, water charges are being paid to Executive Engineer Water Ways Division Chaibasa on monthly basis.

Industrial: There is no processing unit , But Water is being used in diesel engine for cooling purpose & Water Spraying on haul road & Crusher for dust suppression. Water for mines and miscellaneous uses is varying from 97-111 KL.

Township, Drinking & Domestic

About 3951 persons have been provided water supply facility in the township. water consumption for drinking and domestic purpose in the township is 1350 KL/Day.

2. Raw materials consumption

Name of Raw Material	Name of the product	Consumption of Raw material per unit(Te)	
		During the previous financial year 2019-20	During the current financial year 20-20-21
Diesel lt/Te	Iron ore	0.095	0.084
Lubricants Lt/Te	Iron ore	0.00073	0.0011
Explosives in Kg/Te	Iron ore	0.104	0.100

PART C

Pollution discharged to Environment/Unit of output

(Parameters as specified in the consent issued)

Environmental Lab has been set up at Monoharpur Ore Mineswith following equipment

a) Respirable Dust Sampler,Model-APM460(BL),
b) Fine Particulate Sampler PM 550 Model
C) Gaseous Sampling Attachment APM 411(TE) Model
D) Sound Level meter Model SLM-100
E) Multi parameter Water Analysis Kit (pH, Conductivity, TDS & DO)

Air , Water and Noise quality monitoring is being carried out regularly.

In addition to this, environmental quality monitoring is also being carried out by JSPCB on Half yearly basis.

a) **Water quality monitoring**: Water quality monitoring was done at different locations of Hamsadagara Nalla as well as spring water. Analysis report is enclosed as **Annexure-A**

b) **Air quality monitoring**: Ambient air quality monitoring was done during the year 2019-20 at different locations is enclosed as **Annexure-B**.

c) **Noise Monitoring:** Noise monitoring was done at Different locations and analysis report is enclosed as **Annexure-C**.

PART D
HAZARDOUS WASTE

(As specified under Hazardous Wastes / Management and Handling Rules, 1989)

Hazardous Waste	Total qty. in Kg.	
	During the previous year 2019-20	During the current year 2020-21
(a) From process	30 Kg (Burnt or used oil)	347 Kg (Burnt or used oil)
(b) Cotton Waste	----	---

PART E
SOLID WASTES

	Total qty. in Kg. During the Previous year (2019-20)	During the current year (2020– 21)
(a) From process (overburden)	11896.00Te	77994.09Te
(b) From pollution control Facilities	NIL	NIL
(c) Quantity recycled :Reutilized Within the Unit	Nil	Nil
(d) Solid	Nil	Nil
(c) Disposed	11896.00Te	77994.09Te

PART F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid waste and indicate disposal practice for both these categories of waste.

Used oil and Cotton waste are the hazardous waste generated at Manoharpur Ore Mines. The quantity of used oil and cotton waste is very negligible .However used oil stored temporarily stored in sealed drums for auction to registered recycler. The main solid waste generated from mining operations is OB & Waste which is dumped in the yard demarcated in the approved mining plan and leveled properly.

PART G

Impact of the pollution abatement measures taken on conservations of all resources and on the cost of production.

1. Regular water spraying on haull roads has reduced generation of air borne dust from mining haull roads.
2. Afforestation at mines and town ship area.
3. Ear plugs and dust masks are provided to the employees who are engaged in the area where there is possibility of such pollution.

PART H

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

650 saplings are planted at mines& township area in 2020-21.

PART I

Expenditure on environmental control measures and studies during 2020-21 is given below

1. Cost of water spraying for dust Suppression : Rs.33.69 lacs
2. Cost of afforestation of trees : Rs 1.02 lacs
3. Cost of Water CAAQMS : Rs. 8.50 lacs
4. Monitoring Air and water, Noise & awareness creation World Environment week, week, Swachata Pakwada EIA/EMP : Rs 10.46 lacs

Total : Rs.53.67 lacs

Iron ore dispatch : 553841.03 Te

Cost per tonne on environment Expenses= Rs.9.69

USR ENVIRO

(OHSAS 18001 & ISO 9001 Certified Laboratory. Recognized by Jharkhand State Pollution Control Board)

G1/4, Gautam Navlakha Apartment, Near Road. No. 7, Kagal Nagar Market
Petrol Pump Road, Sonari, Jamshedpur - 831011

Mob. No. 9109377735, 8092120176 / E-mail: usrenviro.2019@gmail.com

Report of Surface Water		JSPCB Online Application No.	Date of Issue
Report Code	SW- 18268150-04	18268150	01/04/2021

Name of Industry Issued To	SAMPLING & ANALYSIS DATA	
M/s. MANOHARPUR ORE MINES	Sample No.	USR/2021/MAR/18
At. CHIRA (DHORA) PO:CHIRA-833105	Sample Date & Time	: 25th Mar, 2021/04:15PM
Dist. WEST SINGHBHUM, JHARKHAND	Sample Description	: Surface Water
	Sample Drawn By	: USR Enviro
	Remark	: ———

Sample Collected by: S. K. Singh & Team — Location : Hamsada Nala
Type of Sample : Upstream — Sample Condition : Sealed & Preserved
Sample Quantity : Two Liter/ Plastic Bottles — Weather Condition : Clear Day

Sr. No.	Parameter	Test Method	Result	Desir. Limit	Perms. Limit
1.	Temp A/W in oC	Thermometer /Hydrometer	24.6	—	—
2.	pH value at 25° C	IS 3025 (Part 11-1984 Rflm: 2012	7.3	6.5-8.5	No Relaxation
3.	Sulphate as SO_4 in mg/l	IS 3025 (Part 24- 1986 Rflm: 2009	17.2	200	400
4.	Chloride as Cl	IS 3025 (Part 32-1988 Rflm: 2009	83.1	250	1000
5.	Potassium mg/l	IS 3025 (Part 45)	3.76	—	—
6.	Total Dissolved Solids (as TDS) mg/l	IS 3025(Part 16- 1984 Rflm: 2012	298	500	2000
7.	Total Suspended Solid (as TSS) mg/l	APHA 22nd Edn-2012,2540D	59.6	—	—
8.	Iron(as Fe) mg/l	IS 3025 (Part 53-1988 Rflm: 2009	0.08	0.3	No Relaxation
9.	Oil & Grease mg/l	IS 3025 (Part 39)	2.2	—	—
10.	Fluoride (as F) mg/l	IS 3025 (Part 60- 2008 Rflm: 2013	0.27	1.0	1.5

*BDL Limit: 0.02mg/l

Notes
1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.
3. This test report will not be used for any publicity/legal purpose.
4. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.

USR ENVIRO Jamshedpur SONARI

CHECKED BY — Rutash S. Ch. / Pratik Singh
USR Enviro Analyst — Laboratory Incharge

Laboratry Incharge
USR ENVIRO

Annexure-B

USR ENVIRO

(OHSAS 18001 & ISO 9001 Certified Laboratory. Recognized by Jharkhand State Pollution Control Board)

G1/4, Gautam Navlakha Apartment, Near Road. No. 7, Kagal Nagar Market
Petrol Pump Road, Sonari, Jamshedpur - 831011

Mob. No. 9109377735, 8092120176 / E-mail: usrenviro.2019@gmail.com

Report of Ambient Air Quality Analysis		JSPCB Online Application No.	Date of Issue
Report Code	AAQA-10268190-02	10268190	01/04/2021

Name of Industry Issued To	SAMPLING & ANALYSIS DATA	
M/s. MANOHARPUR ORE MINES	Sample No.	: USR/2021/MAR/16
At. CHIRA (DHOBIL) PO:CHIRA-833105	Sample Date	: 25th – 26th Mar, 2021
	Sample Description	: Ambient Air
Dist. WEST SINGHBHUM, JHARKHAND	Sample Drawn By	: USR Enviro
	Remark	: ————
	Duration of Analysis	: 24 H

Sample Collected By: Avinash Krishna & Team

AAQ Site A	Near Store office Dhobil Mines
AAQ Site B	Railway Siding Manoharpur
AAQ Site C	Chirla Hospital

Sampling Instrument Used: Respirable Dust Sampler (PM_{10}) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Type of Sample : Suspended Dust & Gases
Source of Sample : Iron Ore Mines
Sample Condition : Sealed & Preserved
Weather Condition : Clear Day

Parameter	Unit	*Limit	Test Results			Test Protocol
			AAQ Site A	AAQ Site B	AAQ Site C	
SO_2	µg/m3	80	18.75	15.50	19.75	IS: 5182 (Part -2)
NO_x	µg/m3	80	30.56	28.35	24.55	IS: 5182 (Part -6)
PM 10	µg/m3	100	84.25	78.90	82.15	IS: 5182 (Part -23)
PM 2.5	µg/m3	60	38.71	39.46	42.31	CPCB Volume-1/ Gravimetric

*****End Report*****

Notes:

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4. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.

CHECKED BY — Rotash S. Ch. / Pratik Singh
USR Enviro Analyst — Laboratory Incharge

USR ENVIRO Jamshedpur SONARI

Laboratry Incharge
USR ENVIRO

USR ENVIRO

(OHSAS 18001 & ISO 9001 Certified Laboratory. Recognized by Jharkhand State Pollution Control Board)

G1/4, Gautam Navlakha Apartment, Near Road. No. 7, Kagal Nagar Market
Petrol Pump Road, Sonari, Jamshedpur - 831011

Mob. No. 9109377735, 8092120176 / E-mail: usrenviro.2019@gmail.com

Report of Ambient Noise		JSPCB Online Application No.	Date of Issue
Report Code	AN-10268150-01	10268150	01/04/2021
Name of Industry Issued To		SAMPLING & ANALYSIS DATA	
M/s. MANOHARPUR ORE MINES		Sample No.	: USR/2021/MAR/15
		Sample Date	: 25th Mar, 2021
At. CHIRIA (DHOBIL) PO:CHIRIA-833106		Sample Description	: Ambient Noise
		Sample Drawn By	: USR Enviro
Dist. WEST SINGHBHUM, JHARKHAND		Remark	: ———
		Period of Analysis	: Day & Night
		Protocol Used for Monitoring & Testing: IS: 4758/RI: 11461	
	Industry Situated At	: Mines Area	
	Source of Sample	: Iron Ore Mines	
	Sample Collected By	: Amlesh Krishna & Team	

METEOROLOGICAL INFORMATION

1.	Average Temperature (°C)	32.5
2.	Average Relative Humidity (%)	58.0
3.	Barometric Pressure (mm of Hg)	750
4.	Weather Condition	Clear Day

AMBIENT NOISE QUALITY REPORT — **Monitoring Date:**

Sl. No.	Location	Leq dB(A) Day	Leq dB(A) Night
1.	Near General Office	48.2	35.2
2.	Railway Siding	57.4	41.2
3.	Near Crushing Area	79.7	52.4
4.	Middle of Dhobil Mines	71.6	61.7
5.	Chiria Hospital	49.2	32.1
6.	Ankua Chowk	42.8	29.1

*EPA-1986, FCLR/02/2010, Provision set [Chapter 104, Section 102(1)] Pollution (Noise) Regulation.

***** End Report *****

NOISE LIMIT AS PER CPCB

Category of Area/Zone	Leq dB(A) Day Time	Leq dB(A) Night Time
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence	50	40

Notes:
1. The results given above are related to the tested samples, as received.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.
3. This test report will not be used for any publicity/legal purpose.

CHECKED BY — Rokesh S. Ch. / Pratik Singh

USR Enviro Analyst — Laboratory Incharge

USR ENVIRO Jamshedpur SONARI

Laboratry Incharge
USR ENVIRO