

June 15, 2020

To,
The Member Secretary,
Jharkhand State Pollution Control Board,
T.A. Division Building, Dhurwa,
Ranchi, Jharkhand

Subject: Regarding compliance of Environmental Clearance conditions.

Reference: Environmental Clearance from Ministry of Environment & Forest, New Delhi
vide F.No.J-11011/76/2011-IA-II(I) dt. 27.11.2012.

Sir,

We have obtained environment clearance and NOC from the concerned authorities prior to starting the work at site. All mandatory clearances, authorizations and permission obtained prior to commissioning and operation of the plant.

As per requirements of Environment (Protection) Act 1986 and various conditions of the above mentioned Environmental Clearance we are submitting the six monthly compliance reports with status for the period from 1st October 2019 to 31th March 2020 to the specified authorities. The same is enclosed for your information.

Thanking you,

Yours Faithfully,
For Jamshedpur Minerals & Chemicals

(Shiv Kumar Agarwal)
Partner

Enclosure: Compliance Report for the period 1.10.2019 to 31.03.2020
with Annexure

June 15, 2020

To,
The Director, IA-Division (Monitoring Cell),
Indira Paryavaran Bhawan, Ministry of Environment, Forest & CC,
Jorbagh Road, Lodhi Road, New Delhi-110003

Subject: Regarding compliance of Environmental Clearance conditions.

Reference: Environmental Clearance from Ministry of Environment & Forest, New Delhi
vide F.No.J-11011/76/2011-IA-II(I) dt. 27.11.2012.

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(Shiv Kumar Agarwal)
Partner

Enclosure: Compliance Report for the period 1.10.2019 to 31.03.2020
with Annexure

June 15, 2020

To,
The Regional Officer,
Jharkhand State Pollution Control Board,
Adityapur, Jamshedpur, Jharkhand

Subject: Regarding compliance of Environmental Clearance conditions.

Reference: Environmental Clearance from Ministry of Environment & Forest, New Delhi
vide F.No.J-11011/76/2011-IA-II(I) dt.27.11.2012.

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(Shiv Kumar Agarwal)
Partner

Enclosure: Compliance Report for the period 1.10.2019 to 31.03.2020
with Annexures

June 15, 2020

To,
Regional Officer (ECZ)
Ministry of Environment, Forest and Climate Change,
Regional Office (ECZ), Bungalow No. A-2, Shyamali Colony,
Ranchi – 834002

Subject: Regarding compliance of Environmental Clearance conditions.

Reference: Environmental Clearance from Ministry of Environment & Forest, New Delhi
vide F.No.J-11011/76/2011-IA-II(I) dt. 27.11.2012.

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We have obtained environment clearance and NOC from the concerned authorities prior to starting the work at site. All mandatory clearances, authorizations and permission obtained prior to commissioning and operation of the plant.

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(Shiv Kumar Agarwal)
Partner

Enclosure: Compliance Report for the period 1.10.2019 to 31.03.2020
with Annexure

June 15, 2020

To,
Regional Director
CPCB, Kolkata
Southern Conclave, Block 502,
5th & 6th Floors, 1582
Rajdanga Main Road, Kolkata - 700107,

Subject: Regarding compliance of Environmental Clearance conditions.

Reference: Environmental Clearance from Ministry of Environment & Forest, New Delhi
vide F.No.J-11011/76/2011-IA-II(I) dt.27.11.2012.

Sir,

We have obtained environment clearance and NOC from the concerned authorities prior to starting the work at site. All mandatory clearances, authorizations and permission obtained prior to commissioning and operation of the plant.

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Enclosure: Compliance Report for the period 1.10.2019 to 31.03.2020
with Annexure

ENVIRONMENT CLEARANCE COMPLIANCE REPORT

Environmental Clearance F.No.J-11011/76/2011-IA-II(I) dt.27.11.2012	
CONDITION	COMPLIANCE/ STATUS (01.10.2019 – 31.03.2020)
<u>SPECIFIC CONDITIONS</u>	
i. No charcoal shall be used as fuel Pet coke shall be used as fuel instead of charcoal from unknown sources.	No fuel, charcoal or coke used in the production process.
ii. Continuous monitoring facilities for all the stacks and sufficient air pollution control equipments viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 50 mg/Nm ³	Continuous monitoring system installed from Forbes Marshall Code Pvt. Ltd. and connected online with JSPCB, Ranchi. The fume extraction system with cyclone separators and bag filters along with ID Fan and stack installed to meet the norms. Stack monitoring report attached as Annexure - 1 .
iii. The National Ambient Air Quality Standards issued by the Ministry vide G S.R. No. 826(E) dated 16th November, 2009 shall be followed.	Ambient Air Quality maintained within the permissible limits of National Standards. Monitoring reports attached as Annexure - 1
iv. Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.	Secondary fugitive emissions well within the prescribed limit of CPCB. Guidelines / Code of Practice issued by the CPCB will be followed. Working under shed, water sprinklers and bag filters installed to control the secondary emissions if any.

<p>v. Regular monitoring of influent and effluent surface. sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.</p>	<p>No water requirement or any wastewater/effluent generated from the process. Domestic waste water is routed to septic tank – soak pit.</p>
<p>vi. The total water requirement shall not exceed 1.5 m³/day. 'Zero' effluent discharge shall be strictly followed and no wastewater should be discharged outside the premises.</p>	<p>The total water requirement does not exceed 1.0 m³/day. No water is required for production and hence there is no waste water. The water is exclusively used for Domestic purpose only. 'Zero' effluent discharge strictly followed, declaration of same already submitted.</p>
<p>vii. Efforts shall be made to make use of rain water harvested If needed; capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.</p>	<p>Rain water tank-cum-pit constructed for collection and use of water harvested for plant purposes or recharge to ground water.</p>
<p>viii. Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture of Silica Manganese (Si-Mn). All the other ferro alloy slag shall be used in the preparation of building materials.</p>	<p>Slag produced, used in the lining of vessel for manufacturing of Ferro Manganese.</p>
<p>ix. No Ferro Chrome shall be manufactured without prior approval from the Ministry of Environment & Forests.</p>	<p>No Ferro Chrome manufacturing. We hereby confirm that we will not manufacture Ferro Chrome without the prior approval of MoEF &CC.</p>
<p>x. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.</p>	<p>Risk and Disaster Management Plan already submitted as per direction</p>

<p>xi. As proposed. Green belt should be developed in at least 33 % of the project area Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.</p>	<p>The green belt developed around the proposed area. Plantation done in the open area to the extent possible. Limited land area in notified industrial area.</p>
<p>xii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar Implementation of such program shall be ensured accordingly in a time bound manner.</p>	<p>We will adhere to the plan and the guidelines of CPCB and MoEF &CC. Local needs will be identified and social work taken up accordingly. Expenditure during Oct'19 to March'20 on social welfare work is approx .Rs.1.10 lacs</p>
<p>xiii. The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking. mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.</p>	<p>The unit has been installed and is in operation since 26.02.2015. No construction at present.</p>

GENERAL CONDITIONS:

<p>i.) The project authorities must strictly adhere to the stipulations made by the Jharkhand State Pollution Control Board and the State Government.</p>	<p>We adhere to the stipulations of JSPCB. Consent to operate obtained prior to commissioning of the plant and renewed regularly thereafter, with compliance of conditions.</p>
<p>ii.) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment & Forests.</p>	<p>We confirm that no expansion or modification in the plant shall be carried out without prior approval of MoEF &CC.</p>
<p>iii.) The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.</p>	<p>It will be strictly complied with</p>

<p>iv.) At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the SPCB/CPCB once in six months.</p>	<p>AAQ monitoring carried out. Reports enclosed as Annexure - 1</p>
<p>v.) The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).</p>	<p>It will be strictly complied with. Noise monitoring carried out and report attached as Annexure - 1</p>
<p>vi.) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.</p>	<p>Occupational health surveillance of the workers done as per statute and records maintained.</p>
<p>vii.) The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.</p>	<p>Rain water tank and RWH pit for entire premises constructed</p>
<p>viii.) The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.</p>	<p>Being complied. Socio-economic development activities in the surrounding villages will be taken up after identification. Expenditure during Oct'19 to March 20 on social welfare work is approx. Rs ...1.10 lakhs</p>

<p>ix.) Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.</p>	<p>Capital cost of Rs. 29.50 lakhs and recurring cost of Rs. 2.50 lakhs earmarked towards cost of environment control measures. Environment protection measures implemented as per EIA/EMP and schedule. Recurring cost for Environmental Control measure from 1.10.2019 to 31.03.2020 is approx. Rs 2.90 Lacs, details attached as Annexure - 3.</p>
<p>x.) A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.</p>	<p>Letter sent to concerned offices/bodies. Clearance letter has been put on the web site of the company.</p>
<p>xi.) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bhubaneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely: PM10, SO, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.</p>	<p>Complied. Status uploaded on the company website. Information also displayed on the board at the company main gate.</p>
<p>xii.) The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar / CPCB / SPCB shall monitor the stipulated conditions.</p>	<p>Six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data regularly submitted to concerned authorities in June & December every year. Latest compliance report attached along with.</p>

<p>xiii.) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently. shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bhubaneswar by e-mail.</p>	<p>Being complied as directed. Environment Statement for the period ending March 2020 attached as Annexure - 4</p>
<p>xiv.) The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar.</p>	<p>Information to the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry has been published in Hindustan (Hindi) and Hindustan Times dated 03.12.2012 and copies submitted to concerned authorities. Copies submitted with earlier reports.</p>
<p>xv.) Project authorities 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 and the date of commencing the land development work.</p>	<p>Finance for the project has been approved by :</p> <ol style="list-style-type: none"> 1. Bank of Baroda, Main Branch, Jamshedpur on 6th April 2013. <p>The unit has been installed and under operation with Consent to Operate under Ref: PC/JSR/AIR/J-76/14/39564/B-195, dtd. 19.01.2016 and valid upto 30.09.2020.</p>



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ULR NO – TC510920000000313F

Format No. : EC/TRT/42/FM/01

TEST REPORT

Report Release Date : 21.03.2020	Sample Ref. No.(ARF) : EC/ARF/29/200350
Test Report No : EC/TR/42/03251	Source of Sample : Ferro Alloys Plant
Type of Sample : Dust & Gaseous Emission	Sampling Date : 12.03.2020
Sample Collected by : Mr. Sisir Kumar Roy & Team	Period of Analysis : 16.03.20 to 17.03.20
Sample Details : Stack Emission	Sampling Location : Bag Filter Stack
Name & Address : Jamshedpur Minerals & Chemicals B-29(P), VI th Phase A.I.A, Gamharia Dist – Saraikela Kharsawan Jharkhand	Sample Condition : Preserved & Sealed
	Sample Stamped as : TH – 405
	Sample Drawn By : ECO CARE
	Sampling Plan & Procedure : EC/SOP/03/01
	Remarks : ----
	Deviation if any : None

GENERAL INFORMATION

1 Particular of the Plant	: Ferro Alloys Plant
2 Emission Due to	: Process Activity
3 Stack Connected to	: Reactor Vessels
4 Material of Construction	: M.S.
5 Stack Height from G.L.	: 30.0 m
6 Height of Sampling Port from G.L.	: 15.0 m
7 Height of Sampling Port from L.D.Z.	: 3.7 m
8 Dimension of Stack at Sampling Port	: 0.70 m
9 Shape of the Stack	: Circular Ø
10 Working Load	: 1 MT/Cycle (1 Cycle = 48 hrs)

FUEL CHARACTERISTIC REPORT

1 Source of Energy	: Aluminum
2 Energy Consumption	: 200 Kg/Cycle (1 Cycle = 48 hrs)
3 Calorific Value (K-Cal/Kg)	: ----

RESULTS OF SAMPLING GASEOUS EMISSION ANALYSIS

		Method
1 Flue Gas Temperature	54 °C	IS 11255 : Part 3
2 Barometric Pressure	758 mm Hg	IS 11255 : Part 3
3 Velocity of Flue Gas	7.31 m/sec	IS 11255 : Part 3
4 Flue Gas Quantity	91989 NM ³ /hr	IS 11255 : Part 3
5 Concentration of Particulate Matter	67.05 mg/NM ³	IS 11255 : Part 1
6 Concentration of Carbon Dioxide %	2.4	IS 13270
7 Concentration of SO ₂	32.76 mg/NM ³	IS 11255 : Part 2
8 Concentration of NO _x	44.42 mg/NM ³	IS 11255 : Part 7

Note:- Latitude – 22°48'0.34365"(N), Longitude – 86°6'56.24778"(E)

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

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ULR NO – TC510920000000314P

Format No. : EC/TRT/42/FM/04

TEST REPORT

Report Release Date : 21.03.2020	Sample Ref. NO.(ARF) : EC/ARF/29/200350
Test Report No : EC/TR/42/03252	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 12.03.20 to 13.03.20
Sample Collection by : Mr. Sisir Kumar Roy & Team	Period of Analysis : 16.03.20 to 20.03.20
Sample Details : Ambient Air	Sample Condition : Sealed & Preserved
Name & Address : Jamshedpur Minerals & Chemicals B-29(P), VI th Phase A.I.A, Gamharia Dist – Saraikela Kharsawan Jharkhand	Remarks : --- Sample Drawn By : ECO CARE Sampling Plan & Procedure : EC/SOP/03/01 Deviation if any : None

1. Sampling Location: Near Main Gate

SL NO	TESTS	PROTOCOL	Limit as per NAAQS	RESULT
1	Particulate Matter PM ₁₀ µg/m ³	IS 5182:Part 23:2006	100	68.06
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	34.15
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	25.00
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	29.18
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.28
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	< 0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	5.95
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.116
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	45.11
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.123
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	35.61
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.119

*Note:- Latitude-22°48'0.79075"(N)Longitude-86°6'54.17283"(E)

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory.

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ULR NO – TC510920000000315P

Format No. : EC/TRT/42/FM/04

TEST REPORT

Report Release Date : 21.03.2020	Sample Ref. NO.(ARF) : EC/ARF/29/200350
Test Report No : EC/TR/42/03253	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 12.03.20 to 13.03.20
Sample Collection by : Mr. Sisir Kumar Roy & Team	Period of Analysis : 16.03.20 to 20.03.20
Sample Details : Ambient Air	Sample Condition : Sealed & Preserved
Name & Address : Jamshedpur Minerals & Chemicals B-29(P), VI th Phase A.I.A, Gamharia Dist – Saraikela Kharsawan Jharkhand	Remarks : ----
	Sample Drawn By : ECO CARE
	Sampling Plan & Procedure : EC/SOP/03/01
	Deviation if any : None

2. Sampling Location: Near Administrative Building

SL NO	TESTS	PROTOCOL	Limit as per NAAQS	RESULT
1	Particulate Matter PM ₁₀ µg/m ³	IS 5182:Part 23:2006	100	61.27
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	32.08
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	17.42
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	23.66
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.30
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	< 0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	6.17
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.127
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	39.95
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.118
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	40.42
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.124

*Note:- Latitude-22°48'0.5 6677"(N)Longitude-86°6'53.8665"(E)

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2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
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ULR NO – TC510920000000316P

Format No. : EC/TRT/42/FM/04

TEST REPORT

Report Release Date : 21.03.2020	Sample Ref. No.(ARF) : EC/ARF/29/200350
Test Report No : EC/TR/42/03254	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 13.03.20 to 14.03.20
Sample Collection by : Mr. Sisir Kumar Roy & Team	Period of Analysis : 16.03.20 to 20.03.20
Sample Details : Ambient Air	Sample Condition : Sealed & Preserved
Name & Address : Jamshedpur Minerals & Chemicals B-29(P), VI th Phase A.I.A, Gamharia Dist – Saraikela Kharsawan Jharkhand	Remarks : ---- Sample Drawn By : ECO CARE Sampling Plan & Procedure : EC/SOP/03/01 Deviation if any : None

3. Sampling Location: North East Corner of the Plant

SL NO	TESTS	PROTOCOL	Limit as per NAAQS	RESULT
1	Particulate Matter PM ₁₀ µg/m ³	IS 5182:Part 23:2006	100	70.52
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	37.54
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	28.79
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	35.38
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.33
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	< 0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	5.74
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.123
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	35.08
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.114
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	42.17
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.131

*Note:- Latitude-22°48'1.40046"(N)Longitude-86°6'55.92065"(E)

1. Test values are reported based on the samples received.
2. Sample(s) will be destroyed after 7 days from date of issues of the Test Report subject to nature of Preservation. Sample will be preserved as per the standard method.
3. The Test report shall not be reproduced, without the written approval of laboratory.

Authorised Signatory
NIRANJAN LAL AGARWALLA
B Tech MS (USA), A.M.I.E.
Scientist & Chief Executive



Eco Care



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Specialised House on Environmental Monitoring, Analysis, Assessment & Management
ISO 9001 : 2015 Certified, OHSAS 18001:2007 Certified

E-mail : ecocareansol@rediffmail.com
Manoj Talkies Basement, Kumarpur
ASANSOL-713304 (W.B.)

ULR NO – TC51092000000317P

Format No. : EC/TRT/42/FM/04

TEST REPORT

Report Release Date : 21.03.2020	Sample Ref. NO.(ARF) : EC/ARF/29/200350
Test Report No : EC/TR/42/03255	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 13.03.20 to 14.03.20
Sample Collection by : Mr. Sisir Kumar Roy & Team	Period of Analysis : 16.03.20 to 20.03.20
Sample Details : Ambient Air	Sample Condition : Sealed & Preserved
Name & Address : Jamshedpur Minerals & Chemicals B-29(P), VI th Phase A.I.A, Gamharia Dist – Saraikela Kharsawan Jharkhand	Remarks : ---- Sample Drawn By : ECO CARE Sampling Plan & Procedure : EC/SOP/03/01 Deviation if any : None

4. Sampling Location: South East Corner of the Plant

SL NO	TESTS	PROTOCOL	Limit as per NAAQS	RESULT
1	Particulate Matter PM ₁₀ µg/m ³	IS 5182:Part 23:2006	100	73.12
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	29.48
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	21.21
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	30.56
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.37
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	< 0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	6.38
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.133
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	33.64
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.127
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	37.03
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.112

*Note:- Latitude-22°48'0.487"(N)Longitude-86°6'56.1296"(E)

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ULR NO – TC51092000000318F

Format No. : EC/TRT/42/FM/07

TEST REPORT

Report Release Date : 21.03.2020	Sample Ref. No.(ARF) : EC/ARF/29/200350
Test Report No : EC/TR/42/03256	Source of Sample : Ferro Alloys Plant
Type of Sample : Noise	Sampling Date : 12.03.20 to 13.03.20
Sample Collected by : Mr. Sisir Kumar Roy & Team	Period of Analysis : ----
Sample Details : Ambient Noise	Sample Condition : ----
Name & Address : Jamshedpur Minerals & Chemicals	Remarks : ----
B-29(P), VI th Phase	Sample Drawn By : ECO CARE
A.I.A, Gamharia	Sampling Plan &
Dist – Saraikela Kharsawan	Procedure : EC/SOP/03/01
Jharkhand	Deviation if any : None

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	30.6
2	Average Relative Humidity (%)	67.0
3	Barometric Pressure (mm of Hg)	758
4	Weather Condition	Clear Day

AMBIENT NOISE QUALITY REPORT

Sampling Location		NOISE LEVEL		
		Minimum	Leq – Mean	Maximum
1. Near Main Gate Lat-22°48'0.79075"(N), Long-86°6'54.17383" (E)	Day	50.50 dB(A)	64.11 dB(A)	69.70 dB(A)
	Night	48.70 dB(A)	55.42 dB(A)	59.10 dB(A)
2. South West Corner of the Plant Lat-22°48'0.487" (N), Long-86°6'56.1296" (E)	Day	50.60 dB(A)	59.37 dB(A)	63.10 dB(A)
	Night	46.30 dB(A)	53.88 dB(A)	57.50 dB(A)
3. North East Corner at the Plant Lat-22°48'1.4046" (N), Long-86°6'55.92065" (E)	Day	56.80 dB(A)	61.62 dB(A)	65.90 dB(A)
	Night	41.00 dB(A)	49.07 dB(A)	55.40 dB(A)

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FORM-V

ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR ENDING 31st MARCH 2020

PART-A

- (i) Name and address of the occupier of the industry / operation or process. : **Jamshedpur Minerals & Chemicals B-29(P), VIth Phase, Adityapur Industrial Area, P.O - Gamharia- 832108**
- Industry Category : **SSI Unit**
- Primary (SIC code) : **-**
- Secondary (SIC Code) : **Ferro Alloy**
- (ii) Production Category (Units)
- a) Ferro Manganese : 4800 TPA**
- b) Ferro Molybdenum : 600 TPA**
- c) Ferro Titanium : 600 TPA**
- (iii) Year of establishment : **01.12.2014**
- (iv) Date of last Environmental Statement submitted : **17.05.2019**

PART- B

WATER AND RAW MATERIAL CONSUMPTION

(A) Water Consumption 0.80 KLD:

Process	0.00
Cooling	0.00
Domestic and Others	0.80 KLD

Name of the product	Process water consumption per unit of product output.	
	During the previous financial year 2018-19	During the current financial year 2019-20
Ferro Manganese	Nil	Nil
Ferro Molybdenum	Nil	Nil
Ferro Titanium	Nil	Nil
No use of water in production process or cooling.		

(B) Raw Material Consumption : Low Carbon Ferro Manganese

Name of Raw Material	Consumption of raw material per unit of output:	
	During the previous financial year 2018-19 Low Carbon Ferro Manganese Total Production: 696.971 Tons	During the current financial year 2019-20 Low Carbon Ferro Manganese Total Production: 425.734 Tons
Aluminium Scrap	0.565 T/T.	0.724 T/T.
Aluminium Powder	0.00093 T/T.	0.000 T/T.
Ferro Silicon Powder	0.00 T/T.	0.0012 T/T.
Silico Manganese	0.70096 T/T.	0.162 T/T.
Manganese Ore	1.80124 T/T.	1.438 T/T.
M.S Scrap	0.16987 T/T.	0.088 T/T.
Lime	0.23308 T/T	0.0925 T/T

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 Discharged (mass/volume)	Percentage of variation From prescribed Standards with reasons
(A) Water	No discharge of effluent.	NA	NA
(B) Air	Within norms as per the monitoring reports attached.		NA

PART- D

HAZARDOUS WASTES

(AS SPECIFIED UNDER HAZARDOUS WASTES MANAGEMENT RULES 2016)

Hazardous Waste	Total Quantity (kg/years)
	During the current financial year
(a) From process	Nil
(b) From Pollution Control	Nil

PART -E
SOLID WASTES

Solid waste	Total Quality (t/year)	
	During the previous Financial year 2018-19	During the Current Financial year 2019-20
a)From process Slag (FN+LC)	1219.143 M.T.	475.531 M.T.
(b) From pollution Control facility	Recycled	Recycled
Quantities recycled Or reutilized	395.350 M.T.	595.645 M.T.
. Sold	303.000 M.T.	182.970 M.T.
. Disposed	Nil	Nil

PART- F

Characteristics of wastes and Indicative Disposal practice adopted
The slag generated from Low Carbon Ferro Manganese is used in lining of vessel for production of Low Carbon Ferro manganese.

PART- G

Impact of pollution control measures on conservation of natural resources and consequently on the cost of production.
Fume extraction system with cyclone and bag filter has been installed and slag is stored/reused properly. PPE provided to worker, thus work zone environment is maintained, resulting in improved efficiency.

PART- H

Additional investment proposal for environment protection including abatement of pollution
Plantation, RWH, Regular maintenance of APCD & water sprinkling is being continued for abatement of Pollution. Estimated annual expenditure for the period 2019-20 is Rs. 2.90 lakhs

PART- I

Any other particulars for improving in respect of environmental protection and abatement of pollution.
PPEs provided and its use made regular. Directions of regulatory authorities complied with

Signature of Applicant

ANNEXURE -4

REPAIR & MAINTENANCE FOR POLLUTION CONTROL EQUIPMENT PERIOD : 01.10.2019 TO 31.03.2020

	<u>Particulars</u>	<u>Amount (Rs.)</u>
A)	Salary for 6 month of 1 Maintenance Staff	120,000.00
B)	Expenses incurred on repair & maintenance Period 01.10.2019 to 31.03.2020	122,651.00
c)	Salary for Gardener 6 months	<u>48,000.00</u>
	Total	<u>290,651.00</u>