



JAMSHEDPUR MINERALS & CHEMICALS

Manufacturer of Low Carbon Ferro Alloys

Through Speed Post

December 27, 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) Dated 27-11-2012

Sir,

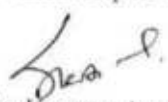
We have obtained environment clearance and NOC/CTE from the concerned authorities prior to starting the work at site. All mandatory clearances, authorizations and permission obtained prior to commissioning and operation of the plant.

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 April 2020 to 30th September 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 01.04.2020 to 30.09.2020 with Annexures



JAMSHEDPUR MINERALS & CHEMICALS

Manufacturer of Low Carbon Ferro Alloys

Through Speed Post

December 27, 2020

To,
The Director, IA-Division (Industry-1),

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) Dated 27-11-2012

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Enclosure: Compliance Report for the period 01.04.2020 to 30.09.2020 with Annexures



JAMSHEDPUR MINERALS & CHEMICALS

Manufacturer of Low Carbon Ferro Alloys

Through Speed Post

December 27, 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(1) Dated 27-11-2012

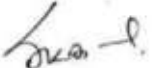
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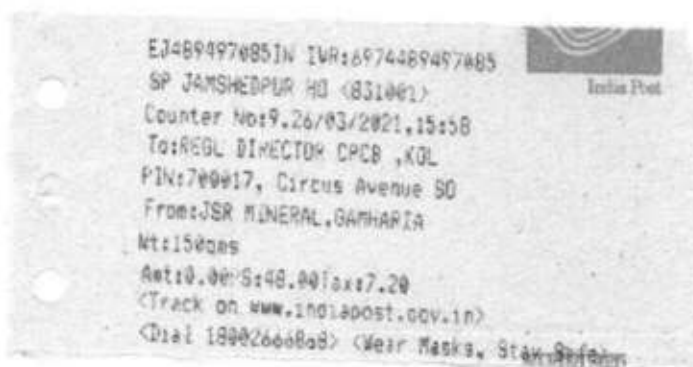
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Enclosure: Compliance Report for the period 01.04.2020 to 30.09.2020 with Annexures



JAMSHEDPUR MINERALS & CHEMICALS
Manufacturer of Low Carbon Ferro Alloys

Through Speed Post

December 27, 2020

To,
The Regional Officer,
Jharkhand State Pollution Control Board,
Adityapur, Jamshedpur, Jharkhand- 831013

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) Dated 27-11-2012

Sir,

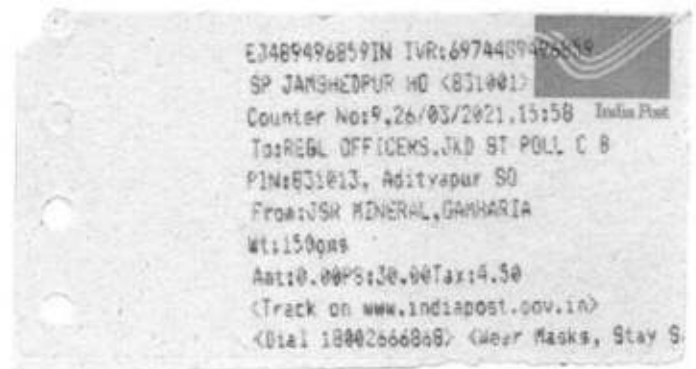
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Enclosure: Compliance Report for the period 01.04.2020 to 30.09.2020 with Annexures



JAMSHEDPUR MINERALS & CHEMICALS

Manufacturer of Low Carbon Ferro Alloys

Through Speed Post

December 27, 2020

To,
The Member Secretary,
Jharkhand State Pollution Control Board,
T.A. Division Building, Dhurwa,
Ranchi, Jharkhand- 834004

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) Dated 27-11-2012.

Sir,

We have obtained environment clearance and NOC/CTE 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 01.04.2020 to 30.09.2020 with Annexures

ENVIRONMENT CLEARANCE COMPLIANCE REPORT

Environmental Clearance F.No.J-11011/76/2011-IA-II(I) dt.27.11.2012

CONDITION	COMPLIANCE/ STATUS (01.04.2020 – 30.09.2020)
SPECIFIC CONDITIONS	
1 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.
2 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 .
3 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
4 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.
5 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.	No water requirement or any wastewater/effluent generated from the process. Domestic waste water is routed to septic tank – soak pit.
6 The total water requirement shall not exceed 1.5 m ³ /day. 'Zero' effluent discharge shall be strictly followed and no wastewater should be discharged outside the premises.	The total water requirement does not exceed 1.0 m ³ /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.

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GENERAL CONDITIONS:

1	The project authorities must strictly adhere to the stipulations made by the Jharkhand State Pollution Control Board and the State Government.	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.
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment & Forests.	We confirm that no expansion or modification in the plant shall be carried out without prior approval of MoEF&CC.
3	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19 th 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.	It will be strictly complied with
4	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.	AAQ monitoring carried out. Reports enclosed as Annexure - 1
5	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).	It will be strictly complied with. Noise monitoring carried out and report attached as Annexure - 1
6	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Occupational health surveillance of the workers done as per statute and records maintained. – Annexure - 2
7	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.	Rain water tank and RWH pit for entire premises constructed

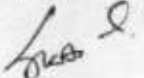
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7	Efforts shall be made to make use of rain water harvested if needed; capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.	Rain water tank-cum-pit constructed for collection and use of water harvested for plant purposes or recharge to ground water.
8	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.	Slag produced, used in the lining of vessel for manufacturing of Ferro Manganese.
9	No Ferro Chrome shall be manufactured without prior approval from the Ministry of Environment & Forests.	No Ferro Chrome manufacturing. We hereby confirm that we will not manufacture Ferro Chrome without the prior approval of MoEF&CC.
10	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.	Risk and Disaster Management Plan already submitted as per direction.
11	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.	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.
12	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.	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 April 20 to September'20 on social welfare work is approx. Rs. NIL (Due to COVID Pandemic no expenses under CSR incurred)
13	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.	The unit has been installed and is in operation since 26.02.2015. No construction at present.

8	<p>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 April 20 to September '20 on social welfare work is approx. Rs NIL (Due to COVID Pandemic no expenses under CSR incurred)</p>
9	<p>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 01.04.2020 to 30.09.2020 is approx. Rs 2.34 Lacs, details attached as Annexure -3</p>
10	<p>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>
11	<p>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>

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12	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.	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.
13	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 along with 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.	Being complied as directed. Environment Statement for the period ending September 2020 attached as Annexure - 4
14	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.	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.
15	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.	Finance for the project has been approved by : 1. Bank of Baroda, Main Branch, Jamshedpur on 6 th April 2013. 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.

JAMSHEDPUR MINERALS & CHEMICALS

Loka P.
Partner

ANNEXURE - 2

Jamshedpur Minerals & Chemicals
B-29(P), VITH PHASE, INDUSTRIAL AREA,
GAMHARIA, JAMSHEDPUR - 832108
GSTIN - 20AAGFJ4862R1ZY

OCCUPATIONAL HEALTH CHECKUP Ledger Account

1-Apr-2020 to 8-Dec-2020

Date	Particulars	Vch Type	Vch No.	Debit	Page 1 Credit
31-5-2020	To CGST PAYABLE (RCM)	RCM TAX INVOICE	RCM/TI/16/19-20	23,600.00	
	By Closing Balance			23,600.00	23,600.00
				23,600.00	23,600.00

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[Signature]
Partner

ANNEXURE - 3

REPAIR & MAINTENANCE FOR POLLUTION CONTROL EQUIPMENT
PERIOD : 01.04.2020 TO 30.09.2020

	PERTICULARS	AMOUNT (Rs.)
A)	Salary for 6 month of 1 Mainenance Staff	60,000.00
B)	Expencess incurred on repair & maintenance Period 01.04.2020 to 30.09.2020	126,461.00
C)	Salary for Gardener 6 months	48,000.00
	Total	<u>234,461.00</u>

JAMSHEDPUR MINERALS & CHEMICALS


Partner

ANNEXURE - 3

Jamshedpur Minerals & Chemicals
 B-29(P), VITH PHASE, INDUSTRIAL AREA,
 GAMHARIA, JAMSHEDPUR - 832108
 GSTIN - 20AAGFJ4862R1ZY

REPAIR & MAINT. (P/M)
 Ledger Account

1-Apr-2020 to 30-Sep-2020

Date	Particulars	Vch Type	Vch No.	Debit	Page 1 Credit
19-5-2020	To GUPTA SHEETS INDUSTRY	Journal		7,050.88	
30-5-2020	To LAXMI MACHINE TOOLS	Journal		3,660.00	
5-6-2020	To GAMHARIA TRADE CENTRE	Journal		4,415.00	
18-6-2020	To KARMAKAR ELECTRICAL WORKS	Journal		4,200.00	
19-6-2020	To KARMAKAR ELECTRICAL WORKS	Journal		800.00	
22-6-2020	To BHAROTI INDUSTRIAL SUPPLIERS	Journal		2,410.00	
25-6-2020	To GAMHARIA TRADE CENTRE	Journal		810.00	
22-7-2020	To KAMAKHYA ENTERPRISES	Journal		5,950.00	
	To GAMHARIA TRADE CENTRE	Journal		1,950.00	
7-7-2020	To LAXMI MACHINE TOOLS	Journal		2,800.00	
4-8-2020	To KAMAKHYA ENTERPRISES	Journal		1,320.00	
11-8-2020	To CHOUDHARY ENTERPRISES (JUGSALAI)	Journal		3,240.00	
12-8-2020	To CHOUDHARY ENTERPRISES	Journal		6,610.00	
26-8-2020	To ASL ENTERPRISES LTD	Journal		35,550.00	
31-8-2020	To UNIVERSAL BEARING CORPORATION	Journal		1,000.00	
9-9-2020	To LAXMI MACHINE TOOLS	Journal		550.00	
15-9-2020	To JAMSHEDPUR SPRING & ENGINEERING COMPANY PVT LTD	Journal		8,000.00	
18-9-2020	To UNIVERSAL BEARING CORPORATION	Journal		5,044.80	
21-9-2020	To KAMAKHYA ENTERPRISES	Journal		5,334.00	
	To BHAROTI INDUSTRIAL SUPPLIERS	Journal		490.25	
22-9-2020	To BHAROTI INDUSTRIAL SUPPLIERS	Journal		1,200.00	
	To KAMAKHYA ENTERPRISES	Journal		8,442.00	
23-9-2020	To LAXMI MACHINE TOOLS	Journal		450.00	
24-9-2020	To BHAROTI INDUSTRIAL SUPPLIERS	Journal		460.00	
25-9-2020	To LAXMI MACHINE TOOLS	Journal		2,940.00	
	To KARMAKAR ELECTRICAL WORKS	Journal		4,450.00	
26-9-2020	To BHAROTI INDUSTRIAL SUPPLIERS	Journal		3,382.50	
	To KAMAKHYA ENTERPRISES	Journal		3,952.00	
				1,26,461.43	
By	Closing Balance				1,26,461.43
				1,26,461.43	1,26,461.43

JAMSHEDPUR MINERALS & CHEMICALS

[Signature]
 Partner



JHARKHAND STATE POLLUTION CONTROL BOARD
T.A Division Building (Ground Floor) HEC Campus, Dhurwa, Ranchi- 834004.
Phone No:-0651- 2400852, 2400851. Fax No:- 2400850.

Ref.no. PC/NOC/JSR/02/11-14/114

Ranchi, Dated. 6/1/13

No Objection Certificate (Consent to establish) under section 25 & 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981.

1. Reference application no. 25679 dated 13.12.2012 of M/s. Jamshedpur Minerals & Chemicals, 410, Ashiana Trade Centre, Adityapur, Dist. Saraikela Kharsawan for setting up a Plant for manufacturing of Ferro Manganese, Ferro Molybdenum & Ferro Titanium at Plot No. B-29 (P) Phase-VI, Mauza-Adityapur Industrial Area, P.O. Gambaria, Dist. Saraikela Kharsawan. The production capacity and proposed investment of the industry will be as follows :-

Ferro Manganese:	4800 TPA
Ferro Molybdenum	600 TPA
Ferro Titanium	600 TPA
Proposed investment	98.40 Lakh.

2. The documents relied upon :

- (i) The contents of N.O.C. application, Project report and the documents furnished in support of application.
- (ii) The related provisions of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986.
- (iii) Public Hearing conducted on 11.01.2011.
- (iii) On the basis of Environmental Clearance issued by MOEF vide letter no. F No.J-11011/76/2011-LA-II (I) dated 27.11.12.

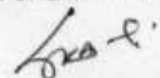
3. After considering the above, N.O.C. (Consent to establish) is accorded subject to the compliance of the following conditions :-

- (i) That, the proponent shall obtain consent to operate from State Pollution Control Board under section 25 & 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 prior to commissioning of the plant.
- (ii) That, the proponent shall install water meter to measure the water to be consumed for different purposes to meet the requirement of the water, furnish returns of water to be consumed and pay water-cess under the Water (Prevention & Control of Pollution) Cess Act, 1977.
- (iii) That, the proponent shall obtain authorization under the Hazardous Waste (Management & Handling) Rules, 1989, the Bio-medical Waste (Management & Handling) Rules, 1998 and the Municipal Solid Waste (Management & Handling) Rules, 2000 whichever is applicable.
- (iv) That, the proponent shall abide by the provisions of the Environment (Protection) Act, 1986 and submit the reports of effluent, emission, ambient air quality and noise level monitored before and after commissioning of the plant in compliance of the standards prescribed in the Environment (Protection) Rules, 1986.
- (v) That, the proponent shall collect and treat the effluent in foolproof latest system and shall recycle treated effluent to the system for reuse and shall ensure the discharge of effluent (if at all necessary) in up stream of the water intake point.

JAMSHEDPUR MINERALS & CHEMICALS

- (vi) That, the proponent shall make stack(s) of the height and with the provision(s) of emission monitoring port hole(s), ladder(s) and platform(s) as prescribed by Central Pollution Control Board.
- (vii) That, the proponent shall ensure continuous and uninterrupted power supply with provision of separate energy meters for the pollution control systems to enable the pollution control systems to function uninterruptedly.
- (viii) That, the proponent shall use D.G. set(s) of standard as prescribed in the Environment (Protection) Rules, 1986 and shall house it (them) in integral acoustic enclosure(s) and shall keep the height of exhaust pipe as per Central Pollution Control Board norms.
- (ix) That, the proponent shall dispose of hazardous wastes, bio-medical wastes, municipal solid wastes and batteries wastes (whichever is applicable) in the manner as specified under respective Rules.
- (x) That the proponent shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently.
- (xi) That, the proponent shall do tree plantation in at least 33% of vacant spaces of the premises.
- (xii) That, the proponent shall implement plan of rainwater harvesting with establishment of the project duly approved by the Directorate of Ground Water, Government of Jharkhand.
- (xiii) That, the total water requirement shall not exceed 1.5 m³ day. Zero effluent discharge shall be strictly followed and no waste water should be discharged out side the premises.
- (xiv) That, the proponent shall install air pollution control devices such as fume extraction system with bag filter etc. to control emission within prescribed limit.
- (xv) That, the proponent shall make arrangements to control secondary fugitive emission from all the sources within the latest permissible limits issued by the Ministry and shall be monitored regularly.
- (xvi) That, the proponent shall make all roads pucca inside the premises and shall maintain a good house keeping by regular cleaning and wetting of the roads and dust prone areas.
- (xvii) That, the proponent shall store all raw materials and products under shed and shall as far as practicable, do their processing and transfer under footproof cover(s) and shall install dust catchers over uncovered spaces of processing and transfers.
- (xviii) That, the proponent shall install on-line stack monitoring system with connectivity of data to Head Office, Ranchi.
- (xix) That, the proponent shall use slag produced in Ferro Manganese production in manufacture of Silico-Manganese.
- (xx) That, the proponent shall use all the Ferro Alloys Slag in the preparation of building materials.
- (xxi) That, the proponent shall not manufacture Ferro Chrome without prior approval from Ministry of Environment & Forest, Govt. of India, New Delhi.
- (xxii) That, the proponent shall comply all the specific and general condition imposed in Environmental Clearance issued by the MOEF vide letter no. F. No.J-1101/76/2011-IA-II (4) dated 27.11.12.

JAMSHEDPUR MINERALS & CHEMICALS


Partner

- (xxiii) That, the proponent shall submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the Regional Office of MOEF, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.
- (xxiv) That, the proponent shall use fly ash and or fly ash bricks in construction of the project.
- (xxv) That, the proponent shall maintain the quality and table of ground water.
- (xxvi) That, the proponent shall keep the waste water in close circuit.
- (xxvii) That, the proponent shall use all solid wastes as resource as a raw material or a product.
4. This shall be valid subject to authenticity of documents furnished in support of application and bonafide ownership and possession of the land by the proponent.
5. The Jharkhand State Pollution Control Board reserves the right to revise and/or add any other conditions, if necessary, for the protection of Environment and to ensure pollution control or any.
6. The present N.O.C. should not be considered as an assurance for granting consent to operate the proposed plant and is subject to installation of all pollution control devices and their monitoring facilities with establishment of the facilities and compliance of all conditions as mentioned above.
7. This N.O.C. is valid for a period of six months from the date of issue.

Sd/-
(S.K. Sinha)
Member-Secretary

Memo no. PC/NOC/JSR/251/08-14114

Ranchi, Dated. 7-1-13

Copy forwarded to : M/s. Jamshedpur Minerals & Chemicals, 410, Ashiana Trade Centre, Adityapur, Dist. Saraikela Kharsawan Chief Inspector of Factories, Doranda, Ranchi/Director Industries, Govt. of Jharkhand, Ranchi/Deputy Commissioner, Saraikela Kharsawan Regional Office, J.S.P.C. Board, Jamshedpur/concerned officer dealing with consent.

(S.K. Sinha)
Member-Secretary

JAMSHEDPUR MINERALS & CHEMICALS

Partner



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004
Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref No. JSPCB/HO/RNC/CTO-8949750/2020/1734

Dated : 2020-10-18

Consent to operate (CTO) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981

- Application (s) dated 2020-09-19 of Jamshedpur Minerals And Chemicals, Occupier Name :Shiv Kumar Agarwal for consent under section 25 (1)(b)/25 (1) (c)/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21(1) of the Air (Prevention & Control of Pollution) Act,1981..
- Documents Relied Upon:**
 - The content of Environmental Clearance granted by MoEF&CC, GoI vide ref. no. J-11011/76/2011-1(A).II(1), dated 27.11.2012 for 6000 TPA Low and Medium Carbon Ferro Alloys Project at Adityapur Industrial Area with compliance report and photographs as compliance;
 - The content of Consent-to-Establish (CTE), Ref No. G-114 Ranchi, Dated 06.01.2013 for G-114 dated 08.01.2013 for Ferro Manganese - 4800 TPA, Ferro Molybdenum- 600 TPA, Ferro Titanium - 600 TPA;
 - The content of Consent-to-Operate (CTO), vide Ref No. PC/JSR/AIR/J-76/14/395641/ RANCHI Dated : 2016-01-18 for Ferro Manganese - 4800 TPA, Ferro Molybdenum- 600 TPA, Ferro Titanium - 600 TPA valid up to 30.09.2020 with compliance report;
 - The content of Declaration that no Hazardous wastes is generated and as there is no water in the process so, no ETP is required; AND Self declaration to procure raw material from valid sources and submitted list of Raw materials supplier of Manganese Ore;
 - The content of Registered land lease agreement made on 04.11.2008 with AIADA for the period of 30 years and also uploaded copy of possession certificate;
 - The content of Inspection Report (I/R), Ref No. 939 dated 25.09.2020 Regional Officer, Regional Office-Cum-Laboratory, Jamshedpur;
- The consent is granted under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 to operate the project in Mauza -Gangpur , P S -Adityapur Industrial Area , District -SERAIKELA KHARSAWAN , as follows:

Project	Site-Area		Investment (Rs)	Product & Capacity	Period of CTO
	Plot Nos.	Area			Date of issue To

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Before Expansion	B-29 (P), Phase VI, Adityapur Industrial Area, Gamharia, Dist. – Saraikela Kharsawan	0.46 Acres	160 Lac	Ferro Manganese : 4800 TPA, Ferro Molybdenum – 600 TPA, Ferro Titanium – 600 TPA	30/09/2025
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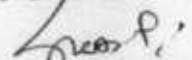
(A) Specific Conditions:

1. That, the occupier shall not utilize ferro chrome without prior approval from Ministry of Environment, Forest & Climate change;
2. That, the occupier shall comply with all the conditions mentioned in environmental clearance and NOC.
3. That the occupier shall submit compliance report of CTO Conditions every year to the Board.
4. That, the total water requirement shall not exceed 1.5 m³/day
5. That, the occupier shall utilize slag produced in Ferro-Manganese production in manufacture of Silica Manganese and shall utilize other ferro alloy slag in the preparation of building materials.
6. That, the occupier shall install and operate online stack emission monitoring system with connectivity to Jharkhand State Pollution Control Board server
7. That, the occupier shall operate and maintain air pollution control equipment such as fume extraction system, Bag filters, Cyclone separators regularly.
8. That, the occupier shall make necessary arrangement for control of secondary fugitive emission and shall follow the guidelines/code of practice issued by Central Pollution Control Board.
9. That, the occupier shall not use charcoal as fuel and Pet coke shall be used as fuel.
10. That, the occupier shall submit applications for renewal of consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 again 120 days prior to the date of expiry of this consent i.e. 30.09.2025, with requisite fee and documents showing compliance of all of the above conditions.

(B) General Conditions :

- (1) That, the occupier shall maintain the **National Ambient Air Quality Standard** given below:

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S N	Pollutant	Time Weighted Average	Concentration in Ambient Air	
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Govt.)
(1)	(2)	(3)	(4)	(5)
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual 24 hours	50 80	20 80
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual 24 hours	40 80	30 80
3.	Particulate Matter (size less than 10 µm) or PM ₁₀ , µg/m ³	Annual 24 hours	60 100	60 100
4.	Particulate Matter (size less than 2.5 µm) or PM _{2.5} , µg/m ³	Annual 24 hours	40 60	40 60
5.	Ozone(O ₃), µg/m ³	8 hours 1 hour	100 180	100 180
6.	Lead (Pb) µg/m ³	Annual 24 hours	0.50 1.0	0.50 1.0
7.	Carbon Monoxide (CO) mg/m ³	8 hours 1 hour	02 04	02 04
8.	Ammonia (NH ₃) µg/m ³	Annual 24 hours	100 400	100 400
9.	Benzene (C ₆ H ₆) µg/m ³	Annual	05	05
10.	Benzo(a) Pyrene(BaP) Particulate Phase only ng/m ³	Annual	01	01
11.	Arsenic (As) ng/m ³	Annual	06	06
12.	Nickel (Ni) ng/m ³	Annual	20	20

Note : Serial no. 1 to 4 – Mandatory
Serial no. 5 to 12 As applicable for specific type of industry.

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- (2) That, the occupier shall maintain the emission quality within the standard and the quantity, as follows:

S N	Parameter	Standard
1	Particulate Matter	100 mg/ Nm ³

- (3) That, the occupier shall keep process effluent in close-circuit and the quality of effluent from other sources in conformity with the standard (s) and the discharge quantity as below:

S N	Parameter	Standard
1	Total Suspended Solids	100 mg/L
2	BOD	30 mg/L
3	COD	250 mg/L
4	Oil & Grease	10 mg/L

- (4) That, the occupier shall dispose of solid wastes as follows:

S N	Waste Type	Mode of Disposal
1	Hazardous Carbonaceous Wastes	In co-processing in high temperature furnaces or kilns
2	Hazardous Non-Carbonaceous Wastes	In TSDF
3	Non-Carbonaceous Non-Hazardous solid wastes/ Mine Over Burden	As a substitute of Soil or Mineral

- (5) That, the occupier shall keep D G Set(s) within acoustic enclosure and shall keep the height(s) of exhaust pipe(s) as per Central Pollution Control Board norm.
- (6) That, the occupier shall install and maintain Central Ground Water Board/ State Ground Water Directorate approved system of rain water harvesting-cum-ground water recharge and submit the photographic view of the structures within a month.
- (7) That, the occupier shall grow and maintain greenery of the project in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.
- (8) That, the occupier shall submit environmental statement with supporting stoichiometric calculations analyses reports, every year latest by 30th September of the next financial year.
- (9) That, the occupier shall submit report(s) duly monitored and issued by an NABL accredited / ISO 9001:2008 and OHSAS 18001:2007 certified laboratory in compliance sub-para (2), (3), (4) and (5) of paragraph 3 of this CTO yearly at required periodicity.

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[Signature]
Partner

- (10) That, this CTO is valid subjected to the validity of mining Lease/Mining Plan/Ecofriendly/Environmental Clearance, if applicable. In case of no renewal of Mining Lease/Mining Plan, this consent shall be treated as revoked automatically.
- (11) That, this CTO is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ occupier.
- (12) That, this CTO shall not in any way, adversely affect or jeopardize the legal proceeding, if any, instituted in the past or that could be, instituted against you by the State Board for violation of the provisions of the Act or the Rules made there under.
- (13) That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Water (Prevention & Control of Pollution) Cess Act, 1977; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and Rules made there under.
4. That, this CTO shall not absolve the occupier from making compliance of other statutory prescribed under any law or direction of courts or any other instrument for the time being in force.
5. That, this CTO is being issued on the basis of information/ documents/ certificate submitted by the unit. This CTO will be revoked if any of the information/documents/certificates/undertaking given by the occupier is found false/fictitious/forged in future.
6. The Order shall be valid subject to compliance of all other legal requirements applicable to the unit.
7. The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alteration in conditions of this consent.

This is issued with the approval of the Competent authority

DINESH PRASAD SINGH
 Digitally signed by DINESH PRASAD SINGH
 Date: 2020.10.18 13:01:24 +05'30'
(Dinesh Prasad Singh)
 Environmental Engineer

Dated : 2020-10-18

Memo No. : JSPCB/HO/RNC/CTO-8949750/2020/1734

Copy to: M/s Jamshedpur Minerals & Chemicals, At- B-29(P), Phase - VI, Adityapur Industrial Area, Gamharia, Dist. - Saraikela Kharsawan / the Director of Industry, Government of Jharkhand, Ranchi/ the Deputy Commissioner, Saraikela Kharsawan/ the Chief Inspector of Factories, Ranchi/ the Regional Office-cum-Laboratory, Jamshedpur for information & necessary action. Regional Officer is requested to examine the status of compliance every year and shall submit the report to the Board.

DINESH PRASAD SINGH
 Digitally signed by DINESH PRASAD SINGH
 Date: 2020.10.18 13:01:35 +05'30'
(Dinesh Prasad Singh)
 Environmental Engineer

JAMSHEDPUR MINERALS & CHEMICALS

[Signature]
 Partner



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Certificate No. TC-5100

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Manoj Talkies Basement, Kumarpur
ASANSOL-713304 (W.B.)

ULR NO - TC51092000000617P

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. No.(ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09260	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 18.09.20 to 19.09.20
Sample Collection by : Mr. Sumit Sarkar & Team	Period of Analysis : 21.09.20 to 22.09.20
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	74.52
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	40.53
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	26.95
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	31.66
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.27
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	6.25
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.125
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	36.36
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.129
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	41.58
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.133

*Note:- Latitude-22°48'0.79069"(N)Longitude-86°6'54.16275"(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

JAMSHEDPUR MINERALS & CHEMICALS

Partner



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Manoj Talkies Basement, Kumarpur

ASANSOL-713304 (W.B.)

ULR NO - TCS1092000000618P

Format No. : EC/TR/42/PM/04

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. No.(ARS) : EC/ARF/29/200953
Test Report No : EC/TR/42/09261	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 18.09.20 to 19.09.20
Sample Collection by : Mr. Sumit Sarkar & Team	Period of Analysis : 21.09.20 to 22.09.20
Sample Details : Ambient Air	Sample Condition : Sealed & Preserved
Name & Address : Jamshedpur Minerals & Chemicals B-29(P), VI th Phase A.L.A, Gamharria 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	58.74
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix I	60	29.88
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	15.23
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	25.48
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.31
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	< 0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	5.87
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.134
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	38.16
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.109
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	43.56
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.125

*Note:- Latitude-22°48'0.5 6672"(N)Longitude-86°6'53.8658"(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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Partner



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Manoj Talkies Basement, Kumpurpur

ASANSOL-713304 (W.B.)

ULR NO - TC51092000000619P

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. No.(ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09262	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 19.09.20 to 20.09.20
Sample Collection by : Mr. Sumit Sarkar & Team	Period of Analysis : 21.09.20 to 22.09.20
Sample Details : Ambient Air	Sample Condition : Sealed & Preserved
Name & Address : Jamshedpur Minerals & Chemicals	Remarks : ---
B-29(P), VI th Phase	Sample Drawn By : ECO CARE
A.I.A, Gamharia	Sampling Plan & Procedure : EC/SOP/03/01
Dist - Sarikela Kharsawan	Deviation if any : None
Jharkhand	

3. Sampling Location: North East Corner of the Plant

SL NO	TEST'S	PROTOCOL	Limit as per NAAQS	RESULT
1	Particulate Matter PM ₁₀ µg/m ³	IS 5182:Part 23:2006	100	67.05
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	35.47
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	19.14
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	27.54
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.34
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	< 0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	5.62
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.123
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	43.56
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.117
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	39.26
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.128

*Note:- Latitude-22°48'1.40041"(N)Longitude-86°6'55.92058"(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 – TC51092000000620P

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. No (ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09263	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 19.09.20 to 20.09.20
Sample Collection by : Mr. Sumit Sarkar & Team	Period of Analysis : 21.09.20 to 22.09.20
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	71.15
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix I	60	38.11
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	23.05
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	33.03
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.24
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	0.129
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	40.09
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.131
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	34.72
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.137

*Note:- Latitude-22°48'0.487"(N)Longitude-86°6'56.1268"(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.

(Signature)

Authorised Signatory
NIRANJAN LAL AGARWALLA
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(Signature)
Partner



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ASANSOL-713304 (W.B.)

ULR NO - TC51092000000621F

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. No.(ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09264	Source of Sample : Ferro Alloys Plant
Type of Sample : Noise	Sampling Date : 19.09.20 to 20.09.20
Sample Collected by : Mr. Sumit Sarkar & Team	Period of Analysis : ---
Sample Details : Ambient Noise	Sample Condition : ---
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

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	29.6
2	Average Relative Humidity (%)	81.0
3	Barometric Pressure (mm of Hg)	751
4	Weather Condition	Clear Day

AMBIENT NOISE QUALITY REPORT

Sampling Location		NOISE LEVEL		
		Minimum	Leq - Mean	Maximum
1. Near Main Gate Lat-22°48'0.79069" (N), Long-86°6'54.17381" (E)	Day	55.80 dB(A)	66.35 dB(A)	71.60 dB(A)
	Night	49.20 dB(A)	54.39 dB(A)	59.20 dB(A)
2. South West Corner of the Plant Lat-22°48'0.487" (N), Long-86°6'56.1296" (E)	Day	53.40 dB(A)	62.77 dB(A)	67.50 dB(A)
	Night	44.90 dB(A)	51.17 dB(A)	54.90 dB(A)
3. North East Corner at the Plant Lat-22°48'1.4046" (N), Long-86°6'55.92058" (E)	Day	54.10 dB(A)	63.72 dB(A)	68.40 dB(A)
	Night	42.40 dB(A)	48.41 dB(A)	51.90 dB(A)

1. Test values are reported based on the samples received.
2. The Test report shall not be reproduced, without the written approval of laboratory

Authorised Signatory

NIRANJANA LAL AGARWALLA
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Scientist & Chief Executive

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Partner



Eco Care



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Manoj Talkies Basement, Kumarpur

ASANSOL-713304 (W.B.)

ULR NO - TC51092000000616F

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

TEST REPORT

Report Release Date	: 23.09.2020	Sample Ref. No.(ARF)	: EC/ARF/29/200953
Test Report No	: EC/TR/42/09259	Source of Sample	: Ferro Alloys Plant
Type of Sample	: Dust & Gaseous Emission	Sampling Date	: 18.09.2020
Sample Collected by	: Mr. Sumit Sarkar & Team	Period of Analysis	: 21.09.20 to 22.09.20
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 - 307
		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	65 °C	IS 11255 : Part 3
2	Barometric Pressure	751 mm Hg	IS 11255 : Part 3
3	Velocity of Flue Gas	7.12 m/sec	IS 11255 : Part 3
4	Flue Gas Quantity	8596 NM ³ /hr	IS 11255 : Part 3
5	Concentration of Particulate Matter	56.09 mg/NM ³	IS 11255 : Part 1
6	Concentration of Carbon Dioxide %	2.2	IS 13270
7	Concentration of SO ₂	31.92 mg/NM ³	IS 11255 : Part 2
8	Concentration of NO _x	47.28 mg/NM ³	IS 11255 : Part 7

Note:- Latitude - 22°48'0.34357"(N), Longitude - 86°6'56.24769"(E)

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3. The Test report shall not be reproduced, without the written approval of laboratory

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ULR NO – TC51092000000617P

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. NO (ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09260	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 18.09.20 to 19.09.20
Sample Collection by : Mr. Sumit Sarkar & Team	Period of Analysis : 21.09.20 to 22.09.20
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	74.52
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	40.53
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	26.95
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	31.66
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.27
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	6.25
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.125
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	36.36
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.129
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	41.58
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.133

*Note:- Latitude-22°48'0.79069"(N)Longitude-86°6'54.16275"(E)

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ASANSOL-713304 (W.B.)

ULR NO – TC51092000000618P

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. NO.(ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09261	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 18.09.20 to 19.09.20
Sample Collection by : Mr. Sumit Sarkar & Team	Period of Analysis : 21.09.20 to 22.09.20
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	58.74
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix I	60	29.88
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	15.23
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	25.48
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.31
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	< 0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	5.87
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.134
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	38.16
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.109
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	43.56
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.125

*Note:- Latitude-22°48'0.5 6672"(N)Longitude-86°6'53.8658"(E)

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(Signature)

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ULR NO – TC51092000000619P

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. NO.(ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09262	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 19.09.20 to 20.09.20
Sample Collection by : Mr. Sumit Sarkar & Team	Period of Analysis : 21.09.20 to 22.09.20
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	67.05
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	35.47
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	19.14
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	27.54
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.34
6	Arsenic (As), ng/m ³	AAS METHOD AFTER SAMPLING	6	< 0.50
7	Nickel (Ni), ng/m ³	AAS METHOD AFTER SAMPLING	20	5.62
8	Carbon Monoxide (CO), mg/m ³	NDIR SPECTROSCOPY	2	0.123
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	43.56
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.117
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	39.26
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.128

*Note:- Latitude-22°48'1.40041"(N)Longitude-86°6'55.92058"(E)

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ULR NO – TC51092000000620P

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. No.(ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09263	Source of Sample : Ferro Alloys Plant
Type of Sample : Suspended Dust & Gases	Sampling Date : 19.09.20 to 20.09.20
Sample Collection by : Mr. Sumit Sarkar & Team	Period of Analysis : 21.09.20 to 22.09.20
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	71.15
2	Particulate Matter PM _{2.5} µg/m ³	EPA CFR40(pt50), Appendix 1	60	38.11
3	Sulphur Dioxide (SO ₂), µg/m ³	IS 5182:Part 2:2001	80	23.05
4	Nitrogen Dioxide (NO _x), µg/m ³	IS 5182:Part 6:2006	80	33.03
5	Lead (Pb), µg/m ³	AAS METHOD AFTER SAMPLING	1.0	0.24
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	0.129
9	Ammonia (NH ₃), µg/m ³	INDO PHENOL BLUE METHOD	400	40.09
10	Benzo(Alpha) Pyrene, ng/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	1	0.131
11	Ozone (O ₃), µg/m ³	CHEMICAL METHOD	180	34.72
12	Benzene (C ₆ H ₆), µg/m ³	ABSORPTION & DESORPTION FOLLOWED BY GC ANALYSIS	5	0.137

*Note:- Latitude-22°48'0.487"(N)Longitude-86°6'56.1268"(E)

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ULR NO - TC510920000000621F

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

TEST REPORT

Report Release Date : 23.09.2020	Sample Ref. No.(ARF) : EC/ARF/29/200953
Test Report No : EC/TR/42/09264	Source of Sample : Ferro Alloys Plant
Type of Sample : Noise	Sampling Date : 19.09.20 to 20.09.20
Sample Collected by : Mr. Sumit Sarkar & Team	Period of Analysis : ----
Sample Details : Ambient Noise	Sample Condition : ----
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

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	29.6
2	Average Relative Humidity (%)	81.0
3	Barometric Pressure (mm of Hg)	751
4	Weather Condition	Clear Day

AMBIENT NOISE QUALITY REPORT

Sampling Location		NOISE LEVEL		
		Minimum	Leq - Mean	Maximum
1. Near Main Gate Lat-22°48'0.79069"(N), Long-86°6'54.17381" (E)	Day	55.80 dB(A)	66.35 dB(A)	71.60 dB(A)
	Night	49.20 dB(A)	54.39 dB(A)	59.20 dB(A)
2. South West Corner of the Plant Lat-22°48'0.487" (N), Long-86°6'56.1296" (E)	Day	53.40 dB(A)	62.77 dB(A)	67.50 dB(A)
	Night	44.90 dB(A)	51.17 dB(A)	54.90 dB(A)
3. North East Corner at the Plant Lat-22°48'1.4046" (N), Long-86°6'55.92058" (E)	Day	54.10 dB(A)	63.72 dB(A)	68.40 dB(A)
	Night	42.40 dB(A)	48.41 dB(A)	51.90 dB(A)


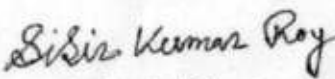
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TAX INVOICE (ORIGINAL FOR RECIPIENT)

INVOICE NO. 200917/20-21/101		DATE. 23.09.2020	
	OUR COMPANY Eco Care ManojTalkies, (Basement Floor) Kumarpur, Asansol-713304 West Bengal		BILLED TO Jamshedpur Minerals & Chemicals B-29(P),Vith Phase, A.I.A, Gamharia Dist - Saraikela Kharsawan Jharkhand
	E-Mail : ecocareasansol@rediffmail.com E-Mail : ecocareranchi@rediffmail.com		E-Mail
GSTN: 19ACXPA1424H12L	GSTN: 20AAGFJ4862R12Y		
SAC: 998346	HSN/SAC:		
PAN: ACXPA1424H	PAN- AAGFJ4862R		
STATE: West Bengal	PLACE OF SUPPLY: Saraikela Kharsawan (Jharkhand)		
BANK: AXIS BANK, ASANSOL			
A/C No: 150010200000930			
IFSC CODE: UTIB0000150			
SI. No.	PARTICULARS	RATE	AMOUNT
1	Stack Monitoring 1 Point	2,500.00	2,500.00
2	Ambient Air Quality Monitoring (2.5) 4 Points	8,500.00	34,000.00
3	A.A.Q (Fugitive)		-
4	Noise Quality Monitoring (Day & Night) 6 Points	1,000.00	6,000.00
5	Ground Water Analysis		-
6	Effluent Water Analysis		-
7	Conveyance & other expenses		2,000.00
Order : Verbal			
RNC	REVERSE CHARGE : NOT APPLICABLE	TAXABLE AMOUNT	44,500.00
SGST:		SGST:	-
CGST:		CGST:	-
IGST: Rupees Eight Thousand Ten Only		IGST: 18%	8,010.00
Amt. Chargeable: Rupees Fifty Two Thousand Five Hundred Ten Only		TOTAL	52,510.00
Terms & Conditions 1. Subject To Asansol Jurisdiction 2. If the bill is not paid within the due date interest will be charged @ 15% per annum		For ECO CARE  Authorised Signatory	

