

FACOR / Bhadrak / Legal / 114 /2022

Dtd.25.04.2022

To

Deputy Director General of Forests (C),
Ministry of Env., Forest and Climate Change,
Integrated Regional Office,
A/3, Chandrasekharpur,
Bhubaneswar – 751023
Email: roez.bsr-mef@nic.in

- Ref :**
1. **Environment Clearance letter No. :** F.No.J-11011/594/2008-IA II (I), dtd. 04.05.2009.
 2. **Name of the Project:** Expansion of Ferro Alloys Plant (High Carbon Ferro Chrome, 65,000 TPA to 1,30,000 TPA) at Randia, District Bhadrak, Orissa by M/s. Ferro Alloys Corporation Ltd.
- Sub :** **Submission of Six Monthly Compliances Report against Environment Clearance letter No. :** F.No. J- 11011/594/2008-IA II (I), dtd. 04.05.2009 issued to M/s. Ferro Alloys Corporation Ltd. for the period from October 2021 to March 2022

Dear Sir,

In compliance to General Condition No. ix of the Environment Clearance letter No. : F.No.J-11011/594/2008-IA II (I), dtd. 04.05.2009, issued by your good office, we are submitting herewith Six-Monthly Compliance Report with respect to Charge Chrome Plant of M/s. Ferro Alloys Corporation Limited, situated at -D.P Nagar, Po-Randia, District – Bhadrak for the period from October 2021 to March 2022.

The Monthly Environmental Monitoring data and other required information with respect to compliance of the said Environment Clearance for the period from October 2021 to March 2022 are also enclosed herewith as Annexure for your kind perusal and records.

Received of the same may kindly be acknowledged herewith.

Thanking you

Yours faithfully

For Ferro Alloys Corporation Ltd.


Factory Manager
Charge Chrome Plant

Enclosed: As above.

Copy to : Director I.A. Division, Ministry of Environment and Forest, Paryavaran Bhawan, New Delhi.

**Six Monthly Environmental Compliance Report
For the period from October -2021 upto March-2022**

S.No	Conditions	Compliance of Conditions
	A. Specific Conditions	
1	i Continuous monitoring facilities for all the stacks and sufficient air pollution control equipment's viz. fume extraction system, cyclones and bag filters to the gas cleaning plant (GCP), ID fan and stack of adequate height to submerged arc furnace shall be provided to control particulate matter emissions below 100 mg/Nm ³ . Bag filters shall be provided to control the dust generated from the briquetting plant. The Orissa 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. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	Complied. The exhaust gas from the semi opened Smelting Arc Furnace generated at a temperature of over 350°C containing dust Particulates, Sulphur Dioxide; Oxides of Nitrogen, Carbon Monoxide is cleaned by Dry Gas Cleaning Plant. GCP consists of Ducts, Equalizer, Trombone Cooler, ID Fan, Bag Filters for separation of dust from the flue gas. Regular preventive maintenance of pollution control equipment's is carried out. AAQMS and Stack monitoring is done by authorized 3rd Party on monthly basis. Report enclosed herewith as Annexure -A . The emission level is within prescribed standard.
2	ii At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated In consultation with the OPCB. Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar, OPCB and CPCB once in six months.	Complied. The ambient air quality monitoring is done in four different location of the plant - Auto garage, MRP Plant, MRSS and R&C Lab. Stack monitoring of GCP and Dryer stack is done by authorized 3rd party Kalyani laboratories PVT. LTD. Data on ambient air quality and stack emission are being regularly submitted to OSPCB.
3	iii In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dry fog dust suppression system will be provided at crushing (and screening section of metal recovery plant to control fugitive emissions generated during crushing, screening etc. Dust extraction system shall be provided to control the fugitive dust from raw material handling, screening and conveying section along with product handling section, transfer and feeding points to control fugitive dust emissions to meet the OPCB norms. Internal roads shall be made black topped and asphalted. Water spraying shall also be done to prevent the dust emanation due to vehicular movement.	Complied. In order to control the fugitive emission there are bag filters attached to dryer plant. Water sprinklers are provided at storage hopper and feeding points of raw material handling system. Plant roads & approach roads have already made concreted, with the help of one water tankers of 10KL capacity are being sprinkled over the roads throughout the working shift to prevent the dust emanation due to vehicular movement.
4	iv Data on ambient air quality, stack emissions and fugitive emissions shall be uploaded on the Company's website and also regularly submitted on-line to the Ministry's Regional Office at Bhubaneswar, Orissa Pollution Control Board (OPCB) and Central Pollution Control Board (CPCB) as well as hard copy once in six months. Data on SPM, SO ₂ and NO _x shall also be displayed prominently outside the premises at the appropriate place for the information of general public.	Authorized 3rd party monitoring report of air quality and stack emission is being submitted in monthly for the concern Orissa Pollution Control Board (OPCB). Report enclosed herewith as Annexure -B . Data on ambient air quality, stack emission and fugitive emissions will be uploaded on company's website shortly after resumption of server error in the company portal. Data on SPM, SO ₂ and NO _x are being displayed prominently outside the premises at the appropriate place for the information of general public.
5	v 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.	Complied. Secondary fugitive emissions are being controlled by bag houses at dryer & briquetting plant, water sprinklers and water tankers all other area of the plant.
6	vi Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.	Complied. The water tanker of 10KLD capacity are being used as dust suppression on concrete roads through out working shift with proper housekeeping contract service to control dust emissions during loading and unloading of the raw material and finished product.
7	vii Total water requirement should not exceed 168 m ³ /day ground water as per the 'permission' accorded by the Central Ground Water Authority vide letter no. 21 4(74)/SER/CGWA/2008-1281 dated 24h October, 2008. Closed circuit cooling system shall be adopted to reduce water consumption. Effluent from Soft water plant shall be neutralized and collected in equalization-cum-settling pond and clear water recycled/reused for dust suppression, metal cooling, slag granulation, green belt development and other plant related activities within the plant premises. Cooling under blow down shall be treated and completely recycled. Wastewater from Jigging Plant shall be treated in a settling tank and reused in Jigging plant. No wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted. Domestic wastewater shall be treated in septic tanks followed by soak pit system and used for green belt development.	Complied. We have obtained NOC from Central Ground water authority (CGWA) for use of ground water in our charge chrome plant and the total water are being used within the prescribed limit of CGWA. Closed circuit cooling system are being adopted to reduce water consumption. No wastewater are being discharged outside the factory premises and 'zero' discharge are being adopted. Work in progress for installation of STP and the treated water to be used for green belt development.
8	viii Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.	Complied. 'Zero' effluent discharge are being strictly followed and no wastewater are being discharged outside the premises.




 Manoj Kumar Shaw
 Factory Manager
 Ferro Alloys Corporation Ltd.
 D.P. Nagar, Randia
 Bhadrak-756135

**Six Monthly Environmental Compliance Report
For the period from October -2021 upto March-2022**

S.No		Conditions	Compliance of Conditions
9	ix	Metal Recovery Plant shall be installed to recover metal in metal recovery plant (Jigging plant) through hydraulic juzzing process. Discharge from metal recovery plant shall be monitored for the Chromium content and maintained within the permissible limit before recycling-and-reuse. Slag-tailings shall be dumped-in-own-premises in secured-land fill as per CPCB guidelines after recovery of the metal. Used oils/lubricants shall be sold to authorized recyclers / reproprocessors.	Complied. Metal Recovery Plant has already been installed. Discharge from metal recovery plant are being monitored for the Chromium content and maintained within the permissible limit before recycling-and-reuse. Slag-tailings are being dumped-in-own-premises in secured-land fill as per CPCB guidelines after recovery of the metal. Used oil is being disposed within 90 days to authorized vendor according to hazardous authorization 2016.
10	x	Chromate slag shall be used for road making only after passing through Toxic Chemical Leachability Potential (TCLP) test. Otherwise, Ferro chrome shall be recovered from the slag and output waste shall be disposed in secured landfill as per CPCB guidelines. All the other solid waste shall be properly disposed off in environment-friendly manner. No hazardous materials shall be spilled out and good house keeping practices shall be adopted. Hazardous waste shall be handled as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments.	Complied. The slag is been reused as a filling in the low lying areas and for the road making purpose as per the approval of OSPCB. All the other solid waste are being properly disposed off in environment-friendly manner. No hazardous materials are being spilled out and good house keeping practices has already been adopted. Hazardous waste are being handled as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments.
11	xi	Product fines, flue dust should not be dumped anywhere but reused in the process. Flue dust and briquette plant dryer dust along with chrome ore fines shall be reused for making briquettes after ensuring non-hazardous in nature. Sewage sludge from Septic tank shall be used as manure.	Complied. The flue dust is reused by Collecting in Silo through chain conveyor and made into pellets, Pellets are charged into furnace on day-to-day basis. The work is under progress for use of sewage sludge from Septic tank as manure.
12	xii	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneswar, OPCB and CPCB.	Complied. Solid and hazardous waste is being monitored and intimation to the concern authorities before and after the disposal of waste. FORM 4 annual report is submitted to OSPCB on yearly basis. Copy enclosed herewith as Annexure -C.
13	xiii	As proposed, green belt shall be developed in at least 84 acres (33 %) out of total 205.50 acres within and around the plant premises as per the CPCB guidelines in consultation with DFO.	We have developed greenbelt in & around the plant premises. However we are going to conduct green belt survey by engaging authorized third party to assess the actual percentage of coverage.
14	xiv	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Ferro chrome units shall be strictly implemented.	Complied. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Ferro chrome units are being implemented.
15	xv	All the issues raised during the Public Hearing / Public Consultation meeting and commitments made shall be satisfactorily Implemented.	It has been clarified vide Para 4.0 of the Environment Clearance dated on 04.05.2009 that no public hearing is required as per section 7(ii) of EIA notification, 2006.
B		General Condition	
1	i	The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OPCB) and the State Government.	All the necessary measures have been taken to adhere to the stipulations made by Orissa Pollution Control (OPCB) and the State Government.
2	ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	No further modification / expansion has been carried out in the plant premises till date
3	iii	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	The Industrial waste water are properly collected through garland drain and recycle to the process. The treated wastewater is being utilized for plantation purpose.
4	iv	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	We have provided three nos rainwater harvesting pond in plant as well as colony area to conserve rain water and utilize in lean season.
5	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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Noise level is being monitored internally in all major working location inside the plant premises and are within the standard.



Manoj K. Shaw
Manoj Kumar Shaw
Factory Manager
Ferro Alloys Corporation Ltd.
D.P. Nagar, Randia
Bhadrak-756135

**Six Monthly Environmental Compliance Report
For the period from October -2021 upto March-2022**

S.No	Conditions	Compliance of Conditions
6	vi Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Periodic Medical Examination is being conducted yearly for all employees and workmen on regular basis and records are also being maintained as per the Factories Act.
7	vii 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.	We are complying with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, we have already engaged our CSR team for undertaking socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
8	viii As proposed, Rs. 10.00 Crores and Rs. 4.00 Crores shall be earmarked towards capital cost and recurring cost/annum for the environment pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	The company has been acquired by Vedanta Ltd. As per the order dated 30.01.2020 of National Company Law Tribunal Cuttack bench. A new board has also been constituted on dated 21.09.2020 pursuant to the order of NCLT and the provision of IBC - 2016. The new management has already proposed specific budget to be utilized for environment pollution control measures and to implement the conditions stipulated by MOEF as well as the state government.
9	ix The Regional Office of this Ministry at Bhubaneswar / CPCB / OPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Monitoring data is being sent to OPCB on monthly basis. Six monthly compliance report submitted to MOEF herewith.
10	x 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 OPCB 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 shall be forwarded to the Regional office at Bhubaneswar.	We have published and circulated the environment clearance of our plant on daily odia newspaper Samaj and Sambad dated 01.10.2009 for information of public. Copy enclose dherewith as Annexure.D.
11	xi 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.	Complied.




Manoj Kumar Shaw
 Factory Manager
 Ferro Alloys Corporation Ltd.
 D.P. Nagar, Randia
 Bhadrak-756135



KALYANI LABORATORIES PVT. LTD.

78/9-44, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000009620P

Test Report No : 1119 | KLPL/10/21/ENVN/01347

Amendment No : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135, BHADRAK, ODISHA.

Date of receipt : 25-Oct-2021

Commenced On : 25-Oct-2021

Completion On : 27-Oct-2021

Issue Date : 01-Nov-2021

Amendment Date : -

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 2 NOS

Ref. To Sampling Procedure: QSP-07

Parameters	Unit	Standard	Value	Results	Test Method
Location & Date : DRYER STACK-4 DT-20.10.2021					
Sulphur Dioxide	mg/Nm ³	-	22.2		IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	79.5		KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	30.1		IS 11255 (part-7):2005
Location & Date : GCP STACK DT-21.10.2021					
Sulphur Dioxide	mg/Nm ³	-	17.9		IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	64.7		KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	23.8		IS 11255 (part-7):2005

Remarks : NIL

Any unusual feature observed during determination : NIL

..... End of Test Report

Analysed By D. Axylala
For Kalyani Laboratories Pvt. Ltd.

D. Axylala
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000010217P

Test Report No : 1149 | KLPL/11/21/ENVN/01385

Issue Date : 03-Dec-2021

Amendment No : -

Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 27-Nov-2021 Commenced On : 27-Nov-2021 Completion On: 29-Nov-2021

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 2 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : DRYER STACK-4 DT-24.11.2021				
Sulphur Dioxide	mg/Nm ³	-	18.8	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	72.5	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	24.6	IS 11255 (part-7):2005
Location & Date : GCP STACK DT-23.11.2021				
Sulphur Dioxide	mg/Nm ³	-	15.1	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	61.2	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	20.3	IS 11255 (part-7):2005

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By : *D Anilcha*
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory : *D. Anilcha*
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000010948P

Test Report No : KLPL/12/21/ENVN/01428 Issue Date : 06-Jan-2022
Amendment No : - Amendment Date : -
Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019
Customer Name : FERRO ALLOYS CORPORATION LTD.
Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.
Date of receipt : 31-Dec-2021 Commenced On : 31-Dec-2021 Completion On: 03-Jan-2022

Sample Name : FLUE GAS | STACK MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
Quantity : 2 NOS
Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
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Location & Date : DRYER STACK-4 DT-30.12.2021

Sulphur Dioxide	mg/Nm ³	-	22.9	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	74.6	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.36	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	377	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	28.8	IS 11255 (part-7):2005
Quantity of Gas Flow	Nm ³ / hr	-	4709.98	KLPL/SOP/AIR-06

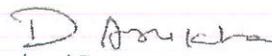
Location & Date : GCP STACK DT-30.12.2021

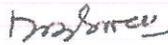
Sulphur Dioxide	mg/Nm ³	-	11.3	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	59.3	KLPL/SOP/AIR-06
Velocity	m/sec	-	6.88	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	353	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	16.2	IS 11255 (part-7):2005
Quantity of Gas Flow	Nm ³ / hr	-	842.88	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****


 Analysed By
 For Kalyani Laboratories Pvt. Ltd.


 Authorised Signatory
 For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

PLOT NO-72/944, MILLENNIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000011337P

Test Report No : 1220 | KLPL/1/22/ENVN/01500 **Issue Date** : 03-Feb-2022

Amendment No : - **Amendment Date** : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 31-Jan-2022 **Commenced On** : 31-Jan-2022 **Completion On**: 02-Feb-2022

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 2 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : DRYER STACK-4 DT-27.01.2022				
Sulphur Dioxide	mg/Nm ³	-	24.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	80.3	KLPL/SOP/AIR-06
Velocity	m/sec	-	10.45	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	382	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	30.6	IS 11255 (part-7):2005
Quantity of Gas Flow	Nm ³ / hr	-	4720.55	KLPL/SOP/AIR-06
Location & Date : GCP STACK DT-28.01.2022				
Sulphur Dioxide	mg/Nm ³	-	13.8	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	55.8	KLPL/SOP/AIR-06
Velocity	m/sec	-	7.88	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	358	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	17.2	IS 11255 (part-7):2005
Quantity of Gas Flow	Nm ³ / hr	-	850.25	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : Nil
***** End of Test Report *****

D Anujata
Analysed By
For Kalyani Laboratories Pvt. Ltd.



Dasgupta
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000011559P

Test Report No : 1241 | KLPL/2/22/ENVN/01545

Issue Date : 02-Mar-2022

Amendment No : -

Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 01-Mar-2022 Commenced On : 01-Mar-2022 Completion On: 02-Mar-2022

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 2 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : DRYER STACK-4 DT-27.02.2022				
Sulphur Dioxide	mg/Nm ³	-	28.8	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	85.6	KLPL/SOP/AIR-06
Velocity	m/sec	-	9.91	KLPL/SOP/AIR-06
Stack Temperature In Deg kelvin	--	--	380	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	34.5	IS 11255 (part-7):2005
Quantity of Gas Flow	Nm ³ / hr	-	5539.16	KLPL/SOP/AIR-06
Location & Date : GCP STACK DT-28.02.2022				
Sulphur Dioxide	mg/Nm ³	-	18.8	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	63.5	KLPL/SOP/AIR-06
Velocity	m/sec	-	8.45	KLPL/SOP/AIR-06
Stack Temperature In Deg kelvin	--	--	361	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	22.5	IS 11255 (part-7):2005
Quantity of Gas Flow	Nm ³ / hr	-	1015.74	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000012123P

Test Report No : 1286 | KLPL/3/22/ENVN/01586

Issue Date : 06-Apr-2022

Amendment No : -

Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CIROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 29-Mar-2022 Commenced On : 29-Mar-2022 Completion On: 02-Apr-2022

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 2 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
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Location & Date : DRYER STACK-4 DT-26.03.2022

Sulphur Dioxide	mg/Nm ³	-	31.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	90.8	KLPL/SOP/AIR-06
Velocity	m/sec	-	9.20	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	382	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	38.7	IS 11255 (part-7):2005
Quantity of Gas Flow	Nm ³ / hr	-	5340.81	KLPL/SOP/AIR-06

Location & Date : GCP STACK DT-25.03.20220

Sulphur Dioxide	mg/Nm ³	-	21.5	IS 11255(part-2):1985(RA 2014)
Particulate Matter	mg/Nm ³	-	70.2	KLPL/SOP/AIR-06
Velocity	m/sec	-	7.31	KLPL/SOP/AIR-06
Stack Temperature in Deg kelvin	--	--	366	KLPL/SOP/AIR-06
Nitrogen Dioxide	mg/Nm ³	--	26.4	IS 11255 (part-7):2005
Quantity of Gas Flow	Nm ³ / hr	-	896.18	KLPL/SOP/AIR-06

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By *D. Ananta*
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

Kalyani Laboratories

78/9-44, PAHALI, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704321000009619P
 Test Report No : 1118 | KLPL/10/21/ENVN/01346
 Amendment No : -
 Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019
 Customer Name : FERRO ALLOYS CORPORATION LTD.
 Address : CHARGE CHROME PLANT, D.P. NAGAR, RANDIA-756135, BHADRAK, ODISHA.
 Date of receipt : 25-Oct-2021 Commenced On : 25-Oct-2021 Completion On : 27-Oct-2021
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 4 NOS
 Ref. To Sampling Procedure: QSP-07

Issue Date : 01-Nov-2021

Amendment Date : -

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : AUTO GARAGE DT-22-23.10.2021				
Sulphur Dioxide	µg/m ³	80	8.61	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.40	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	51.51	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	25.75	KLPL/SOP/AIR-02
Location & Date : FPHS & MRP PLANT DT-20-21.10.2021				
Sulphur Dioxide	µg/m ³	80	8.77	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.24	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	60.09	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	30.05	KLPL/SOP/AIR-02
Location & Date : MRSS & CPP DT-21-22.10.2021				
Sulphur Dioxide	µg/m ³	80	9.07	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.04	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	57.28	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	35.25	KLPL/SOP/AIR-02
Location & Date : R & C LAB DT-19-20.10.2021				
Sulphur Dioxide	µg/m ³	80	7.61	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	17.11	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	53.35	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	26.67	KLPL/SOP/AIR-02

Remarks : NIL

Any unusual feature observed during determination : NIL

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



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KLPL-348208A1



KALYANI LABORATORIES PVT. LTD.

78/944, PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT

NABL ULR NO : TC704321000010216P



Test Report No : 1148 | KLPL/11/21/ENVN/01384 Issue Date : 03-Dec-2021
 Amendment No : - Amendment Date : -
 Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019
 Customer Name : FERRO ALLOYS CORPORATION LTD.
 Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.
 Date of receipt : 27-Nov-2021 Commenced On : 27-Nov-2021 Completion On: 01-Dec-2021
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 4 NOS
 Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : AUTO GARAGE DT-25-26.11.2021				
Sulphur Dioxide	µg/m ³	80	8.99	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.85	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	62.24	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	31.12	KLPL/SOP/AIR-02
Location & Date : FPHS & MRP PLANT DT-23-24.11.2021				
Sulphur Dioxide	µg/m ³	80	9.05	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.28	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	68.68	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	38.63	KLPL/SOP/AIR-02
Location & Date : MRSS & CPP DT-24-25.11.2021				
Sulphur Dioxide	µg/m ³	80	9.58	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.97	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	66.39	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	35.41	KLPL/SOP/AIR-02
Location & Date : R & C LAB DT-22-23.11.2021				
Sulphur Dioxide	µg/m ³	80	7.87	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.35	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	59.58	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	29.79	KLPL/SOP/AIR-02

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000010949P

Test Report No : KLPL/12/21/ENVN/01427

Issue Date : 06-Jan-2022

Amendment No : -

Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 31-Dec-2021 Commenced On : 31-Dec-2021 Completion On: 03-Jan-2022

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 4 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
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Location & Date : AUTO GARAGE DT-30-31.12.2021

Sulphur Dioxide	µg/m ³	80	8.61	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.35	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	68.09	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	29.79	KLPL/SOP/AIR-02

Location & Date : FPHS & MRP PLANT DT-28-29.12.2021

Sulphur Dioxide	µg/m ³	80	9.25	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.99	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	71.14	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	37.66	KLPL/SOP/AIR 02

Location & Date : MRSS & CPP DT-29-30.12.2021

Sulphur Dioxide	µg/m ³	80	10.65	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.30	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	67.28	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	35.88	KLPL/SOP/AIR-02

Location & Date : R & C LAB DT-27-28.12.2021

Sulphur Dioxide	µg/m ³	80	7.59	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.76	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	66.68	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	31.12	KLPL/SOP/AIR-02

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000010949P

Test Report No : KLPL/12/21/ENVN/01427A

Issue Date : 07-Jan-2022

Amendment No : -

Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 24-Dec-2021

Commenced On : 24-Dec-2021

Completion On: 30-Dec-2021

Sample Name : SLAG

Sample Condition : SEALED IN POLY PACK

Quantity : 1 NO

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	: -			
Chromium Hexavalent	mg/l	5.0	0.052	TCLP Criteria of hazardous waste characterisation procedure
Total Chromium	mg/l	--	0.041	TCLP Criteria of hazardous waste characterisation procedure
Lead (Pb)	mg/l	--	0.054	TCLP Criteria of hazardous waste characterisation procedure
Nickel (Ni)	mg/l	--	0.107	TCLP Criteria of hazardous waste characterisation procedure
Cadmium	mg/l	1.0	BDL	TCLP Criteria of hazardous waste characterisation procedure
CO	mg/l	--	0.049	TCLP Criteria of hazardous waste characterisation procedure
Zinc (as Zn)	%	--	0.115	TCLP Criteria of hazardous waste characterisation procedure
Copper (as Cu)	%	--	BDL	TCLP Criteria of hazardous waste characterisation procedure

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000010996P

Test Report No : 4830 | 124882AF4KLPL/12/21/WATER/05728 Issue Date: 07-Jan-2022

Amendment No : - Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135, BHADRAK, ODISHA.

Date of receipt : 24-Dec-2021 Test Commenced On : 24-Dec-2021 Test Completion On: 30-Dec-2021

Sample Description : DRINKING WATER (IS 10500:2012)

Sample Condition : SEALED

Sample Identification * : GROUND WATER Sampling Date : 22-Dec-2021

Batch No , Lot No : NA MFG Date : NA EXP Date : NA

Received Quantity : 1LTR X 2 Place of Collection : NEAR CANTEEN, DATE-22.12.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
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BACTERIOLOGICAL QUALITY

i	Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii	Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009

CHEMICAL PARAMETER

i	Nitrate as NO3	mg/l, Max	45	0.75	IS 3025 (PART 34): 1988 RA 2003
ii	Chloride (as Cl)	mg/l, Max	250	16	IS 3025 (Part 32):1988 RA 2009
iii	Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
iv	Fluoride (as F)	mg/l, Max	1	0.28	IS 3025 (Part 60):2008
v	Iron (as Fe)	mg/l, Max	1	0.38	IS 3025 (Part 53):2003 RA 2014
vi	Total Hardness (as CaCO3),	mg/l, Max	200	176	IS 3025 (Part 21):2009
vii	Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
viii	Total Suspended Solids	mg/l, Max	--	<0.4	APHA 22nd Edition (2540 D),2012
ix	Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
x	Aluminum (as Al)	mg/l,Max	0.03	<0.02	IS 3025 (part-55)

PHYSICAL PARAMETER

i	Color -	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii	Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii	pH value	---	6.5-8.5	7.5	IS 3025 (Part-11):1983, RA 2012
iv	Taste	--	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006

TOXIC SUBSTANCES

i	Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
ii	Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
iii	Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009



4830 | 124882AF4



KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

Test Report No : 4830 | 124882AF4KLPL/12/21/WATER/05728



Parameters	Unit	Requirement	Result	Test Method
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Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

D. Aswatha
Analysed By
For Kalyani Laboratories Pvt. Ltd.

D. Aswatha
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000010997P

Test Report No : 4831 | 124892AF5KLPL/12/21/WATER/05729 Issue Date: 07-Jan-2022

Amendment No : - Amendment Date : -

Reference : W.NO-MA7/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 24-Dec-2021 Test Commenced On : 24-Dec-2021 Test Completion On: 30-Dec-2021

Sample Description : WASTE WATER

Sample Condition : SEALED

Sample Identification * : WASTE WATER Sampling Date : 22-Dec-2021

Batch No , Lot No : NA MFG Date : NA EXP Date : NA

Received Quantity : 1LTR X 2 Place of Collection :NEAR POND,DT-22.12.2021

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
i Total Suspended Solids	mg/l	-	12	APHA 23rd Edition (2540 D),2017
ii Total Dissolved Solid	mg/l	-	440	APHA 23rd Edition (2540 C), 2017
iii Chemical Oxygen Demand	mg/l	-	35	APHA 23rd Edition (5220 B), 2017
iv Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l	-	7	APHA 23rd Edition 2012(5210 B), 2017
v pH Value	mg/l	-	7.2	APHA 23rd Edition (4500 H- B), 2017
CHEMICAL PARAMETER				
i Oil & Grease	mg/l	--	0.4	APHA 23rd Edition (5520B),2017
ii Chromium Hexavalent	mg/l	--	<0.05	APHA 23rd Edition (3500-CR-B):2017

Remarks : NIL

Any unusual feature observed during determination :

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory
For Kalyani Laboratories Pvt. Ltd





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/9-4, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000011336P

Test Report No : 1219 | KLPL/1/22/ENVN/01499

Issue Date : 03-Feb-2022

Amendment No : -

Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 31-Jan-2022 Commenced On : 31-Jan-2022 Completion On: 02-Feb-2022

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 4 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
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Location & Date : AUTO GARAGE DT-28-29.01.2022

Sulphur Dioxide	µg/m ³	80	7.84	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.06	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	60.49	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	27.92	KLPL/SOP/AIR-02

Location & Date : FPHS & MRP PLANT DT-25-26.01.2022

Sulphur Dioxide	µg/m ³	80	9.74	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.52	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	72.97	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	38.63	KLPL/SOP/AIR-02

Location & Date : MRSS & CPP DT-27-28.01.2022

Sulphur Dioxide	µg/m ³	80	10.89	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.31	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	63.37	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	31.68	KLPL/SOP/AIR-02

Location & Date : R & C LAB DT-24-25.01.2022

Sulphur Dioxide	µg/m ³	80	8.36	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.48	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	62.24	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	31.12	KLPL/SOP/AIR-02

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



2C481133626110



KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000011558P

Test Report No : 1240 | KLPL/2/22/ENVN/01544

Issue Date : 02-Mar-2022

Amendment No : -

Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 19-Feb-2022 Commenced On : 01-Mar-2022 Completion On: 02-Mar-2022

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Quantity : 4 NOS

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
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Location & Date : AUTO GARAGE DT-28-01.02.2022

Sulphur Dioxide	µg/m ³	80	7.76	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	12.16	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	64.39	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	31.12	KLPL/SOP/AIR-02

Location & Date : FPHS & MRP PLANT DT-26-27.02.2022

Sulphur Dioxide	µg/m ³	80	9.79	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.64	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	74.79	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	37.40	KLPL/SOP/AIR-02

Location & Date : MRSS & CPP DT-27-28.02.2022

Sulphur Dioxide	µg/m ³	80	8.46	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.52	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	71.13	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	35.56	KLPL/SOP/AIR-02

Location & Date : R & C LAB DT-25-26.02.2022

Sulphur Dioxide	µg/m ³	80	7.35	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	11.82	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	64.39	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	30.05	KLPL/SOP/AIR-02

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

D. Aswaha

Analysed By
For Kalyani Laboratories Pvt. Ltd.



P. Chakraborty
21/3/2022
Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



2D261155826446



KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/9-14, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000012126P
Test Report No : 5321 | 139152F5EKLPL/3/22/WATER/06290 **Issue Date:** 02-Apr-2022
Amendment No : - **Amendment Date** : -
Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019
Customer Name : FERRO ALLOYS CORPORATION LTD.
Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.
Date of receipt : 22-Mar-2022 **Test Commenced On** : 22-Mar-2022 **Test Completion On** : 31-Mar-2022
Sample Description : **DRINKING WATER (IS 10500:2012)**

Sample Condition : SEALED
Sample Identification * : **GROUND WATER** **Sampling Date** : 21-Mar-2022
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : NA
Sample Collected By : By KLPL
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
ii Faecal Coliform	MPN/100ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Nitrate as NO3	mg/l, Max	45	0.4	IS 3025 (PART 34): 1988 RA 2003
ii Chloride (as Cl)	mg/l, Max	250	10	IS 3025 (Part 32):1988 RA 2009
iii Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
iv Fluoride (as F)	mg/l, Max	1	0.1	IS 3025 (Part 60):2008
v Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
vi Total hardness (as CaCO3),	mg/l, Max	200	120	IS 3025 (Part 21):2009
vii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
viii Total Suspended Solids	mg/l,	--	<0.4	APHA 22nd Edition (2540 D),2012
ix Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
x Aluminum (as Al)	mg/l,Max	0.03	<0.02	IS 3025 (part-55)
PHYSICAL PARAMETER				
i Colour.	Hazen, Max	5	<1.0	IS 3025 (Part 4):1983 RA 2012
ii Odour	--	Agreeable	AGREEABLE	IS 3025 (Part 5):1983 RA 2012
iii pH value	---	6.5-8.5	7.2	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
TOXIC SUBSTANCES				
i Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
ii Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
iii Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000012127P

Test Report No : 5322 | 139162F5FKLPL/3/22/WATER/06291 **Issue Date:** 02-Apr-2022

Amendment No : - **Amendment Date** : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 22-Mar-2022 **Test Commenced On** : 22-Mar-2022 **Test Completion On:** 31-Mar-2022

Sample Description : WASTE WATER

Sample Condition : SEALED

Sample Identification * : WASTE WATER **Sampling Date** : 21-Mar-2022

Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA

Received Quantity : 1 LTR X 2 **Place of Collection** :NEAR POND

Sample Collected By : By KLPL

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Requirement	Result	Test Method
CHEMICAL PARAMETER				
i Oil & Grease (Free)	mg/l	--	<0.4	Clause 6 of IS 3025 (Part 39):1991
ii Chromium Hexavalent	mg/l	--	<0.05	APHA 23rd Edition (3500-CR-B):2017
iii Total Dissolved Solid	mg/l,	--	310	APHA 23rd Edition (2540 C), 2017
iv Chemical Oxygen Demand	mg/l,	--	30	APHA 23rd Edition (5220 B), 2017
v Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l,	--	6	APHA 23rd Edition 2012(5210 B), 2017
vi Total Suspended Soilds	mg/l,	--	8	APHA 23rd Edition (2540 D),2017
PHYSICAL PARAMETER				
i pH Value	---	--	7.0	APHA 23rd Edition (4500-H+-B), 2017

Remarks : NIL

Any unusual feature observed during determination : NIL
***** End of Test Report *****

D Anupha
Analysed By
For Kalyani Laboratories Pvt. Ltd.



roshanee
Authorized Signatory
For Kalyani Laboratories Pvt. Ltd





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

NABL ULR NO : TC704322000012122P

TEST REPORT



Test Report No : 1285 | KLPL/3/22/ENVN/01585 Issue Date : 06-Apr-2022
 Amendment No : - Amendment Date : -
 Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019
 Customer Name : FERRO ALLOYS CORPORATION LTD.
 Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.
 Date of receipt : 29-Mar-2022 Commenced On : 29-Mar-2022 Completion On: 02-Apr-2022
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED
 Quantity : 4 NOS
 Ref.To Sampling Procedure: QSP-07

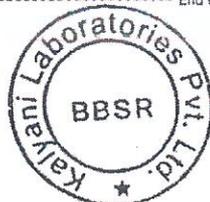
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : AUTO GARAGE DT-28-29.03.2022				
Sulphur Dioxide	µg/m ³	80	8.32	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.43	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	74.25	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	39.31	KLPL/SOP/AIR-02
Location & Date : FPMS & MRP PLANT DT-26-27.03.2022				
Sulphur Dioxide	µg/m ³	80	9.85	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.51	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	73.29	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	38.80	KLPL/SOP/AIR-02
Location & Date : MRSS & CPP DT-27-28.03.2022				
Sulphur Dioxide	µg/m ³	80	8.32	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.43	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	74.25	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	39.31	KLPL/SOP/AIR-02
Location & Date : R & C LAB DT-25-26.03.2022				
Sulphur Dioxide	µg/m ³	80	7.25	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	14.70	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	66.09	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	35.25	KLPL/SOP/AIR-02

Remarks : NIL

Any unusual feature observed during determination : NIL

End of Test Report

Analysed By
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



2F5A1212227532
KLPL-354503A



KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/94, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

TEST REPORT



NABL ULR NO : TC704322000012124P

Test Report No : 1287 | KLPL/3/22/ENVN/01587

Issue Date : 06-Apr-2022

Amendment No : -

Amendment Date : -

Reference : W.NO-MAT/80/36/1920 DATED 05.06.2019

Customer Name : FERRO ALLOYS CORPORATION LTD.

Address : CHARGE CHROME PLANT ,D.P. NAGAR, RANDIA-756135,BHADRAK,ODISHA.

Date of receipt : 29-Mar-2022

Commenced On : 29-Mar-2022

Completion On: 02-Apr-2022

Sample Name : SLAG

Sample Condition : SEALED IN POLY PACK

Quantity : 1 NO

Ref.To Sampling Procedure: QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date	: -			
Chromium Hexavalent	mg/l	5.0	0.056	TCLP Criteria of hazardous waste characterisation procedure
Copper (as Cu)	mg/l	--	BDL	TCLP Criteria of hazardous waste characterisation procedure
Total Chromium	mg/l	--	0.043	TCLP Criteria of hazardous waste characterisation procedure
Zinc (as Zn)	mg/l	--	0.118	TCLP Criteria of hazardous waste characterisation procedure
Lead (Pb)	mg/l	--	0.059	TCLP Criteria of hazardous waste characterisation procedure
Nickel (Ni)	mg/l	--	0.111	TCLP Criteria of hazardous waste characterisation procedure
Cadmium	mg/l	1.0	BDL	TCLP Criteria of hazardous waste characterisation procedure
CO	mg/l	--	0.051	TCLP Criteria of hazardous waste characterisation procedure

Remarks : NIL

Any unusual feature observed during determination : NIL

***** End of Test Report *****

Analysed By
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory
For Kalyani Laboratories Pvt. Ltd.



2F5C1212427534



Registered Office :

FERRO ALLOYS CORPORATION LIMITED

Charge Chrome Plant

D.P. Nagar, P.O. Randia, Pin-756 135

Dist.- Bhadrak, Odisha, India

Phone : 06784 - 240272 / 240347 / 240320

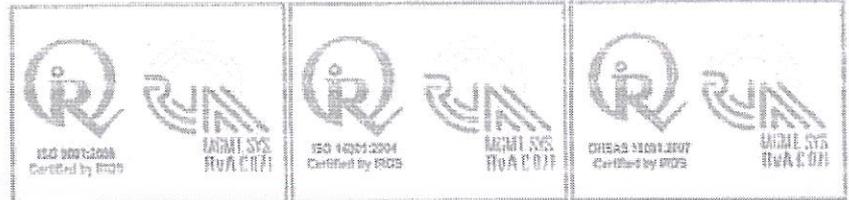
Fax : 06784 - 240628

E-mail : facorccp@facorccp.in / facorccp@gmail.com

facorccp@dataone.in / bis_facorccp@tsnl.in

Website : www.facorgroup.in

CIN No. : L45201OR1955PLC008400



Ref. No: FACOR/HSE/CCP/25-82
Dt. 08.07.2021

To,

The Member Secretary
State Pollution Control Board,
Paribesh Bhawan, A/118,
Nilakantha Nagar, Unit-VIII,
Bhubaneswar.

Sub: Submission of Annual Return in Form-4 under Hazardous Waste (Management & Handling) Rules, 1989 by M/s Ferro Alloys Corporation Ltd, Charge Chrome Plant, Randia, Bhadrak.

Dear Sir,

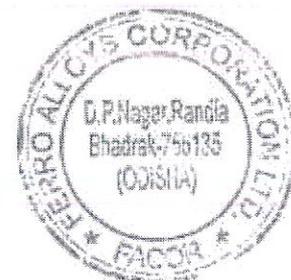
We refer to the subject cited above and enclose herewith the Annual Return regarding handling of Hazardous Waste in Form-4, duly filled in for the year 2020-21 by M/s Ferro Alloys Corporation Ltd., Charge Chrome Plant for your kind information and record.

Thanking you,

Yours faithfully,

For Ferro Alloys Corporation Ltd


Ajit Kumar Parida
Head (O&M)-CCP



FORM 4
[See rules 5(f) and 22 (2)]

**FORM FOR FILING ANNUAL RETURNS
BY THE OCCUPIER OR OPERATOR OF FACILITY**

[To be submitted by occupier/operator of disposal facility to State Pollution Control Board/Pollution Control Committee by 30th June of every year for the preceding period April to March]

1.	Name and address of the generator/operator of facility	:	Ferro Alloys Corporation Ltd., Charge Chrome plant, At- Randia, Dist- Bhadrak				
2.	Name of the authorised person and full address with telephone and fax number	:	Mr. Ajit Parida, Head (O&M) Charge Chrome Plant, D.P.Nagar, Randia, Bhadrak Phone: 06784-240516 Fax: 06784-240626				
3.	Description of hazardous waste	:	Physical form with description	Chemical form			
			Used Oil	Stream-5.1, Schedule-I			
			Flue gas cleaning residue	Stream-35.1, Schedule-I			
			Waste containing oil	Stream-5.2, Schedule-I			
4.	Quantity of hazardous wastes (in MTA)	:	Type of hazardous waste	Quantity (in Tonnes/KL)			
			(a) Used oil	0.00 KL			
			(b) Flue dust	1701.77MT			
			(c) Waste containing oil	0.00 MT			
5.	Description of Storage	:	1. Used oil collected in drums and are being stored on concrete platform under shed. After generation of larger quantity we used to sell it to registered recycler.				
			2. Waste containing oil has been utilized in furnace. 3. Flue dust are being utilized as raw material in the furnace after making pallets / briquettes.				
6.	Description of Treatment	:	N.A				
7.	Details of transportation	:	NA	Name & address of	Mode of packing	Mode of transportation	Date of transportation
8.	Details of disposal of hazardous waste	:		Name & address of	Mode of packing	Mode of transportation	Date of transportation
				Flue dust- 1701.77MT are utilized as raw material in the furnace after making pallets/ briquettes.			
9.	Quantity of useful materials sent back to the manufacturers* and others*	:	NA	Name and type of material sent back	Quantity in Tonnes/KL		
				Manufacturers			
			Others*				

Date : 08.07.2021

Place: Bhadrak



Signature : 
Designation: Head (O&M)

FACOR

CHARGE CHROME PLANT

COPY

Ref : CCP/Mech/78
Date : 03.10.2009

THROUGH COURIER SERVICE

The Environmental Engineer-II,
State Pollution Control Board, Orissa,
Paribesh Bhawan,
A/118, Nilakantha Nagar, Unit-VIII,
BHUBANESWAR - 751 012.

Dear Sir,

Sub : Display of copy of Environmental Clearance for 30 days
for reference of Public.

Ref : Your Memo No. 14880 dated 16.09.09.

With reference to your above Memo and general condition No. X of Environmental Clearance, we have displayed an advertisement regarding Environmental Clearance on 1st October '09 in the daily Oriya Newspaper, SAMAJ and SAMBAD for information of Public. Copy of the same are enclosed herewith for your kind information and record.

Thanking you.

Yours faithfully,
for Ferro Alloys Corporation Ltd.,
Charge Chrome Plant.

(P.G SURESH KUMAR)
GENERAL MANAGER

Encl : As above.

Co to : Collector & District Magistrate, Bhadrak.
General Manager, D.I.C., Bhadrak.
Regional Officer, State Pollution Control Board, Balasore.

Cc to : ~~SM (P&S)~~, SM (Maint.), MF, REC.



PUBLIC NOTICE

is hereby informed to the General Public that
M/s. Ferro Alloys Corpn. Ltd. accorded
Environmental Clearance from Ministry of
Environment & Forest Govt. of India for
increasing production capacity of Chrome
Chrome Plant, Randia Bhadrak from 65,000MT
to 1,30,000MT p.a. The copy of the clearance
letter is available with the State Pollution Control
Board, Bhubaneswar, Odisha, as also see on
website of Ministry of Environment & Forests at
<http://envfor.nic.in>

S/3764



ସର୍ବସାଧାରଣ ବିଜ୍ଞପ୍ତି

ଏତଦ୍ୱାରା ସର୍ବସାଧାରଣଙ୍କ ଅବଗତ ନିମନ୍ତେ ଜଣାଇ
ଦିଆଯାଉଛି କି ସେ ଯେକୌଣସି ବାଣିଜ୍ୟୋପ ପ୍ଲଟ୍ ରହିଆ, ତାହାର
ବାକିକ ଭଦ୍ରାବନ କ୍ଷମତା ୧୫,୦୦୦ ଟଙ୍କାରୁ ୧,୩୦,୦୦୦
ଟଙ୍କା କୁ ବୃଦ୍ଧି କରିବା ପାଇଁ ଭାରତ ସରକାରଙ୍କ ନିର୍ଦ୍ଦେଶ
ଏବଂ ପରିଚେଷ୍ଟା ମହାଶାଳୟ ଦ୍ୱାରା ସ୍ୱୀକୃତି ପ୍ରାପ୍ତ ହୋଇଛି
ଭଲ୍ଟ ସ୍ୱୀକୃତି ପ୍ରାପ୍ତ ଚିଠି ଡିଡ଼ିଟି। ସରକାରଙ୍କ ପ୍ରତ୍ୟକ୍ଷଣ
ନିର୍ଦ୍ଦେଶ ଠାରେ ଉପଲବ୍ଧ । ଏହା ମଧ୍ୟ ଭାରତ ସରକାରଙ୍କ
ପ୍ରତ୍ୟକ୍ଷଣ ଏବଂ ନିର୍ଦ୍ଦେଶ ବିଭାଗର Website [http://
invtr.nic.in](http://invtr.nic.in) ରେ ଦେଖାଯାଇ ପାରିବ ।

