

Ref: FACL/BDK/MOEF/050/2024-25
Dtd: 31.05.2024

To

Member Secretary

State Environment Impact Assessment Authority (SEIAA), ORISSA,
Ministry of Environment and Forest Government of India
Qr. No. - 5RF-2/1, Unit-IX
Bhubaneswar - 751022, (Odisha).
Email: seiaaodisha@gmail.com

Ref : 1. **Environment Clearance letter Ref No. 538 /SEIAA dtd. 21.10.2011**
2. **Name of the Project:** Environment Clearance for expansion of CPP from 45 MW to 100 MW of M/s. FACOR Power Ltd. at Randia in the District of Bhadrak.

Sub : Submission of Six Monthly Compliances Report against Environment Clearance letter No. : Ref No. 538 /SEIAA dtd. 21.10.2011, issued to M/s. FACOR Power Ltd., presently named as M/s Ferro Alloys Corporation Ltd. (Power Plant) for the period from October 2023 to March-2024.

Dear Sir,

In compliance to the Stipulated Condition No.29 of the Environment Clearance letter No.538/SEIAA dtd. 21.10.2011 issued by your good office, we are submitting herewith Six-Monthly Compliance Report with respect to M/s Facor Power Limited presently known as M/s Ferro Alloys Corporation Ltd. (Power Plant) for the period from October 2023 to March 2024.

The monthly Environmental Monitoring data and other required information with respect to compliance of the said Six-Monthly compliance for the period from October 2023 to March 2024 are also enclosed herewith for your kind perusal and records.

Thanking you

Yours faithfully

For Ferro Alloys Corporation Ltd.


G C Mohanty
Factory Manager- Power Plant

Enclosed: As above.

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

Registered Office:

D.P.Nagar, PO : Randia, Dist.: Bhadrak, Odisha, India - 756 135
T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in
Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.

Six Monthly Environmental Compliance Report for the period from Oct 2023 up to March 2024

Condition No.	Stipulated Conditions	Compliance to conditions
i	The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including Solid waste management as mentioned by him in Form-1, Final EIA reports and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and conditions.	All necessary measures for prevention and control of air pollution, water pollution, Noise pollution and land pollution have been taken as per prescribed norms and conditions. Online as well as third party (OSPCB authorized agency) monitoring and analysis of all above parameters are being carried out on regular basis.
ii	The applicant will take necessary steps for socio economic development of the people of the area on need based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities etc. after a detailed primary socio-economic survey.	A professional CSR Team has been engaged for need based assessment and to take necessary steps for socio economic development of the area for providing employment, education, health care, drinking water and sanitation, road and communication facilities etc. after a detailed primary socio-economic survey. However, in the meantime we have taken some steps for socio-economic development such as local employment, development of infrastructure for education, black topping of village road, supply of drinking water for villagers, health care facility etc.
iii	The applicant will comply to the points, concerns and issues raised by the people during public hearing on 24.02.2011 in accordance with the commitments made by him thereon.	The points, concerns and issue raised by the people during public hearing on 24.02.2011 have already been complied.
iv	The applicant will take statutory clearance/ approval / permissions from the concerned authorities in respect of his project as and when required.	All statutory clearance / approval / permission from the concerned authorities in respect of project have been obtained as and when required.
v	For post environmental clearance monitoring, the applicant will submit half-yearly compliance report in respect of the stipulated terms and conditions of Environmental Clearance to the State Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Odisha on 1st June and 1st December of each calendar year.	Half yearly compliance report in respect of the stipulated terms and conditions of Environmental clearance are being submitted to the SEIAA, Odisha on stipulated date.



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vi	High efficiency electrostatic precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³ .	ESP installed to maintain SPM emission below 50mg/ Nm ³ . We have also installed an online monitoring facility with RT-DAS as well as manual monitoring and analysis by an OSPCB approved outsource agency, which shows the particulate emission is within the standard. Report is enclosed as Annexure-1 .
vii	Excess water along with storm water during monsoon should not be discharged into the surrounding low-lying area. The storm water during monsoon will be collected in a pond and after appropriate treatment shall be stored in a reservoir for use in plantation, dust suppression etc.	Excess water along with storm water during monsoon are not being discharged into the surrounding low-lying area. Separate drains are provided to collect storm water during monsoon and Surface Runoff Treatment Facility has been implemented to treat the water and reuse in process and dust suppression.
viii	Under no circumstances the process water shall be discharged to a nearby water body. It should be properly treated, stored and 100% recycled in the process.	100% recycling of process water is done through ETP (R.O. Plant). Zero discharge scheme is adopted to ensure no discharge to outside.
ix	The proponent shall obtain permission from Water Resources Department, Govt. of Odisha for drawal of water.	Permission for drawal of water from river Salandi has already obtained from Water Resource Dept., Govt. of Odisha on dated 27.12.2013.
x	No ground water shall be extracted for the project work at any stage.	No ground water is being extracted for this project.
xi	The technical specification of CFBC system, lime requirement along with point of injection into the bed, peak temperature of combustion, SO ₂ and NO _x emission potential etc. from the manufacturer to ensure the pollution potential (both qualitative and quantitative) of the proposed project with respect to bed ash, fly ash, effluents, emissions etc. to be submitted to SEIAA before commissioning of the plant.	All technical specifications of CFBC system along with pollution potential had been submitted to the authority before commissioning of the plant. Online monitoring for SO _x , NO _x & SPM has been carried out. Evacuation of Fly ash and Bed ash from Boiler to silo is being done through pneumatic conveying system. Zero discharge has been adopted.
xii	The proponent shall treat the flue gas through Flue Gas De-sulfurisation (FGD), if SO ₂ emission level exceeds the prescribed norm.	SO ₂ emission level is very less than the prescribed standard. Hence treatment of Flue gas is not required. Regular monitoring by third party on monthly basis has also been carried out. Copy of monitoring report from Oct 2023 to March 2024 are enclosed herewith as Annexure-1
xiii	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Dust suppression and Dust extraction system have been provided in Coal Handling Plant transfer areas, Wagon Tippler etc. Sprinkling and spray arrangements have been provided in coal stockpile area and Ash Handling Points. Photocopies are enclosed as Annexure-2

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xiv	Fly ash shall be collected in dry form and storage facility (silos) shall be provided 100% fly ash utilization shall be ensured as per fly ash notification of MoEF, Govt. of India. Unutilized fly ash and bottom ash shall be stored in the ash pond separately through high concentration slurry disposal method. Mercury levels along with other heavy metals (Pb,Cr,As etc) should be monitored in the fly ash/ bottom ash, leachates and effluents emanating from the ash pond.	Pneumatic conveying system has been provided for dry ash disposal along with silos. As per fly ash notification of MoEF, Govt. of India almost 100% ash utilization has been achieved since August-2013. There are no effluents emanating from ash pond. However, ground water monitoring near ash pond is being conducted regularly. Test report of is attached as Annexure 3 .
xv	Ash Pond shall be lined with HDPE/ LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	Lining with HDPE sheet was done in Ash Pond. Grass turfing and plantation has done in ash pond dyke to avoid erosion.
xvi	The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary. Arrangements shall be made so that effluents and storm water do not get mixed.	Effluent from process is being treated through ETP and recycled in process. ETP reject water is being used in dust suppression in ash silos. There is no discharge of wastewater outside the plant boundary. Arrangement has been made so that effluents and storm water do not get mixed. Runoff from plant is being treated through Surface Runoff Treatment System (SRTS).
xvii	A sewage treatment plant shall be provided, and the treated sewage shall be used for raising green belt/ plantation.	10 KLD STP is in operational condition. All the treated water is being used for green belt development. Report of the treated water is enclosed herewith as Annexure- 4 .
xviii	The project proponent shall undertake proactive water harvesting measures and water storage for a larger period not less than 30 days storage shall be developed. The rainwater harvesting system shall be put in place before commissioning of the plant. Central Ground water Authority, Board shall be consulted for finalization of appropriate rainwater harvesting technology/ design within a period of three months from the date of this clearance and details shall be furnished. The design of rainwater harvesting shall comprise of rainwater collection from the built up and open area in the plant premises. Action plan and road map for implementation shall be submitted to the SEIAA within six months.	There are two nos of reservoir of 290000 m3 total capacity for storage of water which are adequate to provide storage of water more than 30days. Two nos. of rooftop rainwater harvesting structures in admin building and control room has been provided to emphasize water harvesting. Photographs are attached as Annexure 5 .



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xix	Adequate safety measures shall be provided in the plant area to check/ minimize spontaneous fires in coal yard, especially during summer season. Details of these measures to be taken along with location plant layout shall be submitted to the SEIAA, Odisha.	Hydrant firefighting system & sprinkler system have been incorporated to meet such situation. Fire hydrant line super impose with plant layout is enclosed in Annexure-6 . Details of these measures and plant layout has been submitted to the SEIAA, Odisha.
xx	Storage facilities for auxiliary liquid fuel such as LDO and HFO/ LSHS shall be made in the plant area where risk is minimum. On site and off site Disaster Management Plans shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be incorporated in the Disaster Management Plan (DMP). Sulfur content in the liquid fuel will not exceed 0.5%.	Storage facility has been provided for HSD. Onsite and off-site disaster Management Plans are available. Mock drills are being conducted regularly. Mock drill Report enclosed in Annexure-7 . Sulphur content in the liquid fuel is not exceeding 0.5%.
xxi	Regular monitoring of ground water in and around the ash pond area shall be carried out records maintained, and half yearly reports shall be furnished to the SEIAA, Odisha.	Regular monitoring of ground water near the ash pond area has been carried out and records are maintained. Monitoring Report has been attached with half yearly reports, sent to the SEIAA, Odisha. Report enclosed herewith as Annexure-3 .
xxii	A green belt of adequate width and density, preferably with local species along with periphery of the plant & alongside roads etc. shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green belt throughout the year & for this purpose they may engage professionals in this field for creation and accordingly and submitted to the SEIAA, Odisha.	Power Plant has achieved 36.43% greenbelt coverage. However, we are continuing greenbelt development in and around the plant vacant areas of different species which can provide protection against particulate matter and noise.
xxiii	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First aid and sanitation arrangement were provided during construction phase.
xxiv	Noise levels emanating from turbines and air compressors shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipments like earplugs/ earmuffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy areas.	Acoustic enclosure around the TG set has been provided and the noise level is within the limit. Periodical health check-up is being carried out and no such abnormality of hearing loss has been found yet. Noise reports are enclosed herewith as Annexure- 8 .



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xxv	Regular monitoring of ground level concentration of SO ₂ , NO _x , RSPM (PM ₁₀ & PM _{2.5}) etc. shall be carried out in the impact zone and records to be maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB, Odisha.	Regular monitoring of ambient air (SO _x , NO _x , PM ₁₀ & PM _{2.5}) has been carried out and the results are within the prescribed limits. The reports of above parameters are enclosed herewith in Annexure-9
xxvi	Management and disposal of other solid waste and hazardous waste generated shall be done by the project proponent as per the provisions of the relevant statutory rules.	Management and disposal of other solid waste and hazardous waste generated are being done by the project proponent as per the provisions of the relevant statutory rules. Water sprinkling is done to suppress dust and all other solid waste. Hazardous wastes are being disposed to authorized vendors.
xxvii	Provision shall be made for housing of construction labourers 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.	It was provided during construction.
xxviii	An Environmental cell comprising of at least one expert in environmental science/ engineering, occupational health and social scientist, shall be created at the project site itself and shall be headed by an officer or appropriate superiority and qualification. It shall be ensured that the Head of the cell shall directly report to the head of the organisation and he shall be held responsible for implementation of environmental regulations and social impact improvement/ mitigation measures.	An environment Cell consisting of expert in environmental science / engineering has been created and being followed accordingly.
xxix	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to the appropriate authorities (SEIAA, Odisha)	Half yearly compliance report of the stipulated conditions is being submitted to the SEIAA, Odisha.
xxx	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported.	A separate budget has been allocated for implementation of environment protection measures and the same is being utilized for the said purposes. Yearwise expenditure is being reported in Environmental Statement (Form V).

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xxxi	The need of the local people should be appropriately addressed in the CSR activities to be undertaken by the project proponent in the area. An action plan in this regard should be prepared and submitted to SEIAA, Odisha.	CSR activities are continuing by the help of local people. It includes health camp ie, health check-up, blood donation camp, distribution of medicines from village to village, facilitate drinking water to the villagers, construction of college science block, renovation of village roads and plantation of trees on and around the villages, school, college, banks etc.
xxxii	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board and SEIAA.	The project proponent was advertised in the local newspaper dated 11.05.2009. Copy enclosed herewith as Annexure-10 .
xxxiii	A copy of the 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 received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	A copy of the Environment Clearance letter was sent by the Project Proponent to the concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local body and the Local NGO. A copy of the EC has been displayed on the company website. Screenshot of company website is enclosed in Annexure -11
xxxiv	The environment 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 clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	The Environment statement in Form-V is being submitted to the Board annually and the same has been displayed on the website of the company. Copy enclosed in Annexure -12.
xxxv	The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract penal action under the provisions of Environment Protection (EP) Act, 1986.	Agree to abide.



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KALYANI LABORATORIES PVT.LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in

Annexure 1

TEST REPORT

Test Report No	: KLPL/03/24/ENVN/00120	Issue Date	: 05-April-2024	
Amendment No	: -	Amendment Date	: -	
Reference	: P.O NO-FPPL/3100006601,DATE-8.11.2022			
Customer Name	: POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.			
Address	: D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA			
Date of receipt	: 28-March-2024	Commenced On :	29- March -2024	
		Completion On:	04-April-2024	
Sample Name	: FLUE GAS STACK MONITORING			
Sample Condition	: GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED			
Sample Collected By	: MR. SUDHIR KUMAR BARIK			
Ref.To Sampling Procedure	: KLPL/SOP/AIR-20			
Parameters	Unit	Standard Value	Results	Test Method
Location & Date : STACK ATTACHED TO ESP BOILER, DATE-28.03.2024				
Particulate Matter	mg/Nm³	--	42.32	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	--	<0.001	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO2)	%	--	8.1	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm³	--	84.5	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	468	IS 11255(Part-1):1985,RA:2019
Velocity	m/sec	--	9.8	IS 11255(Part-1):1985,RA:2019
Quantity of Gas Flow	Nm3 / hr	--	286151	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm³	--	0.015	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO2	mg/Nm³	--	132.25	IS 11253(part-2):1985,RA:2019

Remarks

Any unusual feature observed during determination :NIL
The results relate only to samples tested and test parameters

Analysed By

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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





KALYANI LABORATORIES PVT.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752



+91 9861463904

M: kalyanilab@yahoo.co.in



TC-12063



TEST REPORT

NABL ULR NO : TC1206324000001137

Test Report No : KLPL/02/24/ENVN/00095

Issue Date : 05-Mar-2024

Amendment No : -

Amendment Date : -

Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 24-Feb-2024

Commenced On : 24-Feb-2024

Completion On: 26-Feb-2024

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Sample Collected By : MR. SUDHIR KUMAR BARIK

Ref.To Sampling Procedure : KLPL/SOP/AIR-20

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : STACK ATTACHED TO ESP BOILER, DATE-23.02.2024				
Particulate Matter	mg/Nm ³	--	38.32	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	--	<0.001	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO ₂)	%	--	7.5	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm ³	--	86.2	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	465	IS 11255(Part-1):1985,RA:2019
Velocity	m/sec	--	8.55	IS 11255(Part-1):1985,RA:2019
Quantity of Gas Flow	Nm ³ / hr	--	246432	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm ³	--	0.013	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO ₂	mg/Nm ³	--	128.25	IS 11255(part-2):1985,RA:2019

Remarks

Any unusual feature observed during determination :NIL
The results relate only to samples tested and test parameters

Analysed By

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.



End of Test Report



Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

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



+91 9861463904

M: kalyanilab@yahoo.co.in



TC-12063

TEST REPORT

Issue Date : 01-Feb-2024

Amendment Date : -

NABL ULR NO : TC1206324000000529

Test Report No : KLPL/01/24/ENVN/00091

Amendment No : -

Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 29-Jan-2024 Commenced On : 29-Jan-2024 Completion On: 31-Jan-2024

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Sample Collected By : MR. SUDHIR KUMAR BARIK

Ref.To Sampling Procedure : KLPL/SOP/AIR-20

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : STACK ATTACHED TO ESP BOILER, DATE-28.01.2024				
Particulate Matter	mg/m ³	--	34.32	IS 11255(Part-1):1985,RA,2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	--	<0.001	KLPL/SOP/AIR-20,2019
Carbon Dioxide (CO ₂)	%	--	7.3	KLPL/SOP/AIR-20,2019
Oxides of Nitrogen	mg/m ³	--	80.5	KLPL/SOP/AIR-20,2019
Stack Temperature	Deg. kelvin	--	414	IS 11255(Part-1):1985,RA,2019
Velocity	m/sec	--	8.2	IS 11255(Part-1):1985,RA,2019
Quantity of Gas Flow	nm ³ / hr	--	265333	IS 11255(Part-1):1985,RA,2019
Mercury (as Hg)	mg/m ³	--	0.012	KLPL/SOP/STACK-HM-21,2023
Sulphur Dioxide as SO ₂	mg/m ³	--	120.25	IS 11255(part-2):1985,RA,2019

Remarks

Any unusual feature observed during determination : NIL
 The results relate only to samples tested and test parameters

Analysed By

Mr. Digambar Arukha
 For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory

Dr. Debasis Biswal
 For Kalyani Laboratories Pvt. Ltd.

End of Test Report

KLPL-100T444B



Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

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



TC-12063

TEST REPORT

Issue Date : 24-Nov-2023

Amendment Date : -

NABL ULR NO : TC1206323000018757

Test Report No : KLPL/11/23/ENVN/02610A

Amendment No : -

Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 22-Nov-2023 Commenced On : 22-Nov-2023 Completion On: 23-Nov-2023

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : STACK ATTACHED TO ESP BOILER, DATE-21.11.2023				
Particulate Matter	mg/Nm ³	--	31.89	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	--	<0.1	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO ₂)	%	--	7.6	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm ³	--	86.3	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	395	IS 11255(Part-1):1985,RA:2019
Velocity	m/sec	--	7.7	IS 11255(Part-1):1985,RA:2019
Quantity of Gas Flow	Nm ³ / hr	--	261634	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm ³	--	0.012	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO ₂	mg/Nm ³	--	126.34	IS 11255(part-2):1985,RA:2019

Remarks : -

Any unusual feature observed during determination : NIL

The results relate only to samples tested and test parameters

Analysed By

 Mr. Digambar Arukha
 For Kalyani Laboratories Pvt. Ltd.


Authorised Signatory

 Dr. Debasis Biswal
 For Kalyani Laboratories Pvt. Ltd.

End of Test Report

KLPL- 364935A Page 1 of 1



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PLOT NO-78/944, MILLENNIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TC-12063

TEST REPORT



Issue Date : 30-Dec-2023

NABL ULR NO : TC71206323000018768

Test Report No : KLPL/12/23/ENVN/02609A

Amendment No : -

Amendment Date : -

Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 26-Dec-2023 Commenced On : 26-Dec-2023 Completion On: 30-Dec-2023

Sample Name : FLUE GAS | STACK MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : STACK ATTACHED TO ESP BOILER, DATE-24.12.2023				
Particulate Matter	mg/Nm ³	--	38.45	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	--	<0.001	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO ₂)	%	--	7.5	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm ³	--	86.4	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	411	IS 11255(Part-1):1985,RA:2019
Velocity	m/sec	--	8.6	IS 11255(Part-1):1985,RA:2019
Quantity of Gas Flow	Nm ³ / hr	--	285333	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm ³	--	0.013	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO ₂	mg/Nm ³	--	126.41	IS 11255(part-2):1985,RA:2019

Remarks

Any unusual feature observed during determination : NIL
The results relate only to samples tested and test parameters

Analysed By

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

End of Test Report



KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TEST REPORT

NABL ULR NO : TC1206323000018323



TC-12063

Test Report No	: 1924 KLPL/10/23/ENVN/02559	Issue Date	: 03-Nov-2023
Amendment No	: -	Amendment Date	: -
Reference	P.O NO-FPPL/3100006601, DATE-8.11.2022		
Customer Name	POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.		
Address	D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA		
Date of receipt	: 01-Nov-2023	Commenced On	: 01-Nov-2023
		Completion On	: 03-Nov-2023
Sample Name	FLUE GAS STACK MONITORING		
Sample Condition	GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED		
Sample Collected By	By KLPL(MR. SUDHIR KUMAR BARIK)		
Ref.To Sampling Procedure:	KLPL/QSP-07		

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : STACK ATTACHED TO ESP BOILER, DATE-31.10.2023				
Particulate Matter	mg/Nm ³	--	32.32	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	--	<0.1	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO ₂)	%	--	7.3	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm ³	--	86.6	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	393	IS 11255(Part-1):1985,RA:2019
Velocity	m/sec	--	7.8	IS 11255(Part-1):1985,RA:2019
Quantity of Gas Flow	Nm ³ / hr	--	261570	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm ³	--	0.011	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO ₂	mg/Nm ³	--	125.3	IS 11255(part-2):1985,RA:2019

Remarks

Any unusual feature observed during determination :NIL
The results relate only to samples tested and test parameters

Analysed By

D. Arukha
Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.

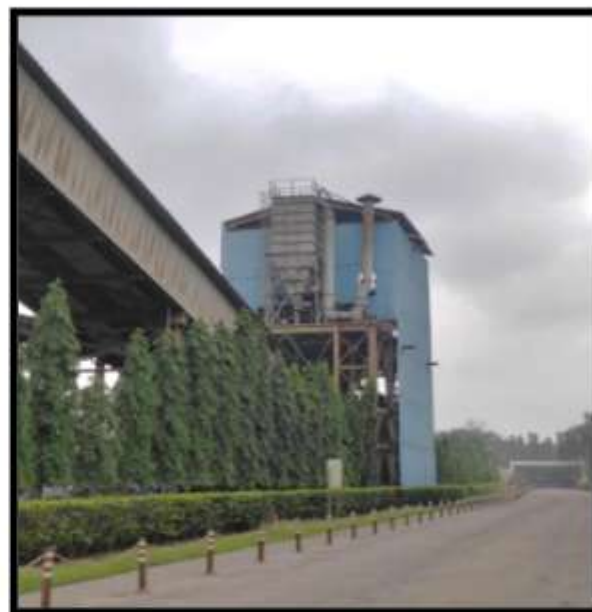


Authorised Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

Dust Suppression Systems



Dedusting Units in Coal Handling Plant



Water Sprinklers in Coal Stock Area



Water Sprinklers in Wagon Tippler

TEST REPORT



Test Report No : KLPL/4/23/WATER/08513A
Amendment No : -
Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.
Address : CHARGE CHROME PLANT, D.P. NAGAR, RANDIA-756135, BHADRAK, ODISHA.
Date of receipt : 26-Apr-2023 **Test Commenced On** : 26-Apr-2023 **Test Completion On** : 05-May-2023
Sample Description : **DRINKING WATER (IS 10500:2012)**

Issue Date : 05-May-2023

Amendment Date : -

Sample Condition : SEALED
Sample Identification * : **GROUND WATER**
Batch No, Lot No : NA **MFG Date** : NA **Sampling Date** : 24-Apr-2023
Received Quantity : 1LTR X 2 NOS **EXP Date** : NA
Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK) **Location** : Near Ash Pond
Ref.To Sampling Procedure : QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
i E.coli	MPN/100ml.	Shall not be detected in any 100ml. Sample	<2	IS 1622:1981 RA 2009
ii Total Coliforms	MPN/100 ml	Shall not be detected in any 100 ml sample	<2	IS 1622:1981 RA 2009
CHEMICAL PARAMETER				
i Chloride (as Cl)	mg/l, Max	250	30	IS 3025 (Part 32):1988 RA 2009
ii Free residual chlorine	mg/l, Min	0.2	<0.04	IS 3025 (Part 26):1986 RA 2009
iii Iron (as Fe)	mg/l, Max	1	<0.05	IS 3025 (Part 53):2003 RA 2014
iv Total hardness (as CaCO ₃),	mg/l, Max	200	152	IS 3025 (Part 21):2009
v Nitrate as NO ₃	mg/l, Max	45	0.36	IS 3025 (PART 34): 1988 RA 2003
vi Calcium (as Ca)	mg/l, Max	75	52.8	IS 3025 (Part 40):1991 RA 2009
vii Copper (as Cu)	mg/l, Max	0.05	<0.02	IS 3025 (Part 42):1992 RA 2009
viii Fluoride (as F)	mg/l, Max	1	0.5	IS 3025 (Part 60):2008
ix Magnesium (as Mg)	mg/l, Max	30	4.86	IS 3025 (Part 46):1994 RA 2003
x Manganese (as Mn)	mg/l, Max	0.1	<0.05	IS 3025 (Part 59):2006 RA 2012
xi Phenolic compounds (as C ₆ H ₅ OH)	mg/l, Max	0.001	<0.001	IS 3025 (Part 43):1992 RA 2009
xii Sulphate (as SO ₄)	mg/l, Max	200	20	IS 3025 (Part 24):1986 RA 2009
xiii Ammonia	mg/l, Max	0.5	<0.3	IS 3025 (Part 34): 1988 RA 2003
xiv Mineral oil	mg/l, Max	0.5	<0.5	Clause 6 of IS 3025 (Part- 39):1991 RA 2003
xv Selenium (as Se)	mg/l, Max	0.01	<0.005	IS 3025 (Part 56):2003 RA 2009
xvi Total alkalinity (as CaCO ₃),	mg/l, Max	200	160	IS 3025 (Part 23):1986 RA 2009
xvii Zinc (as Zn)	mg/l, Max	5	<0.05	IS 3025 (Part 49):1994 RA 2009
xviii Sulphide	mg/l, Max	0.05	<0.05	APHA 22nd Edition (4500-S ₂ -F)
xix Aluminum (as Al)	mg/l, Max	0.03	<0.02	IS 3025 (part-55)
xx Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	<0.1	Annex - K OF IS 13428:2005 RA 2009



Test Report No : **KLPL/4/23/WATER/08513A**



Parameters	Unit	Requirement	Result	Test Method
xxi Boron (as B)	mg/l, Max	0.5	<0.1	Annex H of IS 13428 : 2005 RA 2009
xxii Chromium (as Cr)	mg/l, Max	0.05	<0.02	Annex J of IS 13428 : 2005 RA 2009
xxiii Barium (as Ba)	mg/l, Max	0.7	<0.2	Annex F of IS 13428 RA 2012
xxiv Silver (as Ag)	mg/l, Max	0.1	<0.005	Annex J of IS 13428 : 2005 RA 2009
xxv Molybdenum (as Mo)	mg/l, Max	0.07	<0.02	IS 3025 (Part 2): 2002
xxvi Chloramines (Cl ₂)	mg/l, Max	0.2	<1.0	IS 3025 (Part 26):2009
xxvii Total Chromium	mg/l, Max	0.05	<0.02	IS 3025 (PART 52): 2003 RA 2009
xxviii Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.0001	APHA 22nd Edition (6440)
xxix Polychlorinated biphenyls	mg/l, Max	0.0005	<0.00005	APHA 22nd Edition 6630
xxx Bromoform	mg/l, Max	0.1	<0.1	APHA 22nd Edition 6232
xxxi Dibromochloromethane	mg/l, Max	0.1	<0.1	APHA 22nd Edition 6232
xxxii Chloroform	mg/l, Max	0.1	<0.2	APHA 22nd Edition 6232
xxxiii Bromodichloromethane	mg/l, Max	0.1	<0.06	APHA 22nd Edition 6232
PESTISIDE				
i p p DDE	µg/l, Max	1.0	<0.05	USEPA 508
ii p p DDD	µg/l, Max	1.0	<0.05	USEPA 508
iii p p DDT	µg/l, Max	1.0	<0.05	USEPA 508
iv o p DDT	µg/l, Max	1.0	<0.05	USEPA 508
v o p DDD	µg/l, Max	1.0	<0.05	USEPA 508
vi o p DDE	µg/l, Max	1.0	<0.05	USEPA 508
vii a-HCH	µg/l, Max	0.01	<0.01	USEPA 508
viii B -HCH	µg/l, Max	0.04	<0.01	USEPA 508
ix γ-HCH	µg/l, Max	0.04	<0.01	USEPA 508
x Lindane	µg/l, Max	2.0	<0.01	USEPA 508
xi Endosulfan a	µg/l, Max	0.4	<0.01	USEPA 508
xii Endosulfan sulphate	µg/l, Max	0.4	<0.01	USEPA 508
xiii Monocrotophos	µg/l, Max	1.0	<0.01	USEPA 8141 A
xiv Chlorpyrifos	µg/l, Max	30	<0.01	USEPA 8141 A
xv Phorate	µg/l, Max	2.0	<0.01	USEPA 8141 A
xvi Isoproturon	µg/l, Max	9.0	<0.01	USEPA 532
xvii Methyl Parathion	µg/l, Max	0.3	<0.01	USEPA 8141 A
xviii Malathion	µg/l, Max	190	<0.01	USEPA 8141 A
xix Aldrin	µg/l, Max	0.03	<0.01	USEPA 508
xx Endosulfan B	µg/l, Max	0.4	<0.01	USEPA 508
xxi 2,4-D	µg/l, Max	30	<0.05	USEPA 515.1



Test Report No : **KLPL/4/23/WATER/08513A**



Parameters	Unit	Requirement	Result	Test Method
xxii Butachlor	µg/l, Max	125	<0.01	USEPA 8141 A
xxiii Alachlor	µg/l, Max	20	<0.01	USEPA 507
xxiv Atrazine	µg/l, Max	2.0	<0.01	USEPA 8141 A
xxv Dieldrin	µg/l, Max	0.03	<0.01	USEPA 508
xxvi Ethion(Residue to be Determined as ethion and its oxygen analogue and expressed as ethion)	µg/l, Max	3.0	<0.01	USEPA 1657 A
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	6.8	IS 3025 (Part-11):1983, RA 2012
iv Taste	--	Agreeable	AGREEABLE	IS 3025 (Parts 8):1984 RA 2006
v Turbidity	NTU, Max	1	0.5	IS 3025 (Part 10):1984 RA 2006
vi Total dissolved solids	mg/l, Max	500	280	IS 3025 (Part 16):1984 RA 2006
TOXIC SUBSTANCES				
i Cadmium (as Cd)	mg/l, Max	0.003	<0.001	IS 3025 (Part 41):1992 RA 2009
ii Cyanide (as CN)	mg/l, Max	0.05	<0.02	IS 3025 (Part 27):1986 RA 2009
iii Lead (as Pb)	mg/l, Max	0.01	<0.005	IS 3025 (Part 47):1994 RA 2009
iv Mercury (as Hg)	mg/l, Max	0.001	<0.0005	IS 3025 (Part 48):1994 RA 2009
v Total arsenic (as As)	mg/l, Max	0.01	<0.001	IS 3025 (Part 37):1988 RA 2009
vi Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS 3025 (Part 54): 2003 RA 2009

Remarks :

Any unusual feature observed during determination :

Analysed By

D. Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory

Dr. Debasis Biswal

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd



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

TEST REPORT

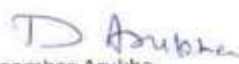
Test Report No	: KLPL/3/24/WATER/00622
Issue Date	: 05-Apr-2024
Amendment No	: --
Amendment Date	: --
Reference	: P.O NO-FPPL/3100006601,DATE-8.11.2022
Customer Name	: POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address	: D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt	: 29-Mar-2024 Commenced On : 29-Mar-2024 Completion On: 04-Apr-2024
Sample Description	: STP OUTLET WATER
Form\Shape\Appearance	: SEALED PET BOTTLE
Sample Identification	: STP OUTLET WATER
Batch No , Lot No	: -- MFG Date : -- EXP Date: --
Received Quantity	: 1 LITRE Sample Collection Location, & Date : PLANT STP OUTLET, DATE-28.03.2024
Sample Collected By	: MR. SUDHIR KUMAR BARIK
Sampling Procedure if Any	: KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
i	Faecal Coliform	MPN/100ml	<1000	110	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	1622:1981, RA 2009
CHEMICAL PARAMETER						
ii	Total Suspended Solids.	mg/l, Max	100	88	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	APHA 24th Edition (2540 D):2023
i	Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	30	5.0	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	APHA 24th Edition (5210 B):2023
PHYSICAL PARAMETER						
i	pH value	--	6.5-9.0	6.9	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	APHA 24th Edition (4500-H+-B): 2023

Opinion & Interpretation: --

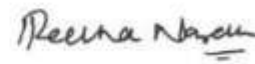
Any unusual feature observed during determination : NIL
 Customer information if any : NIL
 Confirmation statement as per decision rule , if applicable : --

Analysed By


 Mr. Digambar Arukha
 For Kalyani Laboratories Pvt. Ltd.



Authorised By


 Dr. Rekha Nayak
 For Kalyani Laboratories Pvt. Ltd.

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



KALYANI LABORATORIES PVT.LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in

TEST REPORT

NABL ULR NO : TC1206324000001104

Test Report No : KLPL/2/24/WATER/00476

Issue Date : 05-Mar-2024

Amendment No : --

Amendment Date : --



TC-12063

Reference : P.O NO-FPPL/3100006601,DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 24-Feb-2024 Commenced On : 24-Feb-2024 Completion On: 29-Feb-2024

Sample Description : STP OUTLET WATER

Form\Shape\Appearance : SEALED PET BOTTLE

Sample Identification : STP OUTLET WATER

Batch No , Lot No : NA

MFG Date : NA

EXP Date: NA

Received Quantity : 1L* 2 NOS

Sample Collection Location, & Date :

Sample Collected By : MR. SUDHIR KUMAR BARIK

PLANT STP OUTLET, DATE-23.02.2024

Sampling Procedure if Any : KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
CHEMICAL PARAMETER						
i	Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	30	5.0	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	APHA 24th Edition (5210 B):2023
ii	Total Suspended Solids.	mg/l, Max	100	10	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	APHA 24th Edition (2540 D):2023
PHYSICAL PARAMETER						
i	pH value	--	6.5-9.0	8.0	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	APHA 24th Edition (4500-H+-B): 2023

REMARKS:

--

Any unusual feature observed during determination

: NIL

Customer information if any

: NIL

Confirmation statement as per decision rule , if applicable

: --

To view "Terms & Conditions & NABL certificate of accreditation click report.kalyanilaboratories.com/images/NACNTC.pdf

Analysed By

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised By

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

End of Test Report



Kalyani Laboratories

KALYANI LABORATORIES PVT.LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in

TEST REPORT

Test Report No : KLPL/2/24/WATER/00476

Issue Date : 05-Mar-2024

Amendment No : --

Amendment Date : --

Reference : P.O NO-FPPL/3100006601,DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 24-Feb-2024 Commenced On : 24-Feb-2024 Completion On: 29-Feb-2024

Sample Description : STP OUTLET WATER

Form\Shape\Appearance : SEALED PET BOTTLE

Sample Identification : STP OUTLET WATER

Batch No , Lot No : NA

MFG Date : NA

EXP Date: NA

Received Quantity : 1L* 2 NOS

Sample Collection Location, & Date :

Sample Collected By : MR. SUDHIR KUMAR BARIK

PLANT STP OUTLET, DATE-23.02.2024

Sampling Procedure if Any : KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
1	Faecal Coliform	MPN/100ml	<1000	40	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	1622:1981, RA 2009

REMARKS:

Any unusual feature observed during determination : NIL

Customer information if any : NIL

Confirmation statement as per decision rule , if applicable : --

Analysed By

D Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised By

Rekha Nayak

Dr. Rekha Nayak
For Kalyani Laboratories Pvt. Ltd.

End of Test Report



KALYANI LABORATORIES PVT. LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in



TEST REPORT



TC-12063

NABL ULR NO : TC1206324000000525

Test Report No : KLPL/01/24/WATER/0355A

Issue Date: 05-Feb-2024

Amendment No : -

Amendment Date : -

Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 29-Jan-2024

Test Commenced On : 29-Jan-2024

Test Completion On: 05-Feb-2024

Sample Description : STP OUTLET WATER

Sample Condition : SEALED IN PET BOTTLE

Sample Identification : STP OUTLET WATER

Sampling Date : 28-Jan-2024

Batch No , Lot No : NA

MFG Date : NA

EXP Date : NA

Received Quantity : 1LTR X 2

Place of Collection : PLANT STP OUTLET, DATE-28.01.2024

Sample Collected By : MR. SUDHIR KUMAR BARIK

Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Requirement	Result	Test Method
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l	--	20	APHA 24th Edition (5220 B):2023
ii Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	30	4	APHA 24th Edition (5210 B):2023
iii Total Suspended Solids.	mg/l, Max	100	7.2	APHA 24th Edition (2540 D):2023
iv Oil & Grease	mg/l	--	<1.0	APHA 24th Edition (5520 C):2023
v Total Nitrogen	mg/l	--	<5.0	APHA 24th Edition (4500-Norg-B):2023
vi Amomnical Nitrogen (as N)	mg/l	--	<0.5	APHA 24th Edition (4500-NH3-C):2023
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.9	APHA 24th Edition (4500-H+B):2023

Remarks : -

Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th OCTOBER 2017

The results relate only to samples tested and test parameters

Any unusual feature observed during determination : NIL

Customer Information if any :NIL

Conformity statement as per decision rule, If applicable :--

Analysed By

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd

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



Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

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



+91 9861463904 M: kalyanilab@yahoo.co.in

TEST REPORT



Test Report No : KLPL/01/24/WATER/0355A **Issue Date** : 05-Feb-2024
Amendment No : - **Amendment Date** : -
Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt : 29-Jan-2024 **Test Commenced On** : 29-Jan-2024 **Test Completion On** : 05-Feb-2024
Sample Description : STP OUTLET WATER

Sample Condition : SEALED IN PET BOTTLE
Sample Identification : STP OUTLET WATER **Sampling Date** : 28-Jan-2024
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT STP OUTLET, DATE-28.01.2024
Sample Collected By : MR. SUDHIR KUMAR BARIK
Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Feacal Coliform	MPN/100ml.	<1000	70	IS 1622:1981, RA 2009

Remarks : Standard specification as per G.S.R. 1265(E), MOEF & CC, 13th OCTOBER 2017

Any unusual feature observed during determination : NIL

Analysed By

Smruti sephali panda
Miss. Smruti Sephali Panda
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory

Rekha Nayak
Dr. Rekha Nayak
For Kalyani Laboratories Pvt. Ltd.



KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENNIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TEST REPORT



TC-12063

NABL ULR NO : TC1206323000018767
Test Report No : KLPL/12/23/WATER/09738B
Amendment No : -
Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt : 26-Dec-2023
Sample Description : STP OUTLET WATER
Sample Condition : SEALED IN PET BOTTLE
Sample Identification : STP OUTLET WATER
Batch No, Lot No : NA
Received Quantity : 1LTR X 2
Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)
Ref.To Sampling Procedure : KLPL/QSP-07
Issue Date : 30-Dec-2023
Amendment Date : -
Test Completion On : 30-Dec-2023
Sampling Date : 24-Dec-2023
MFG Date : NA
EXP Date : NA
Place of Collection : PLANT STP OUTLET, DATE-24.12.2023

Parameters	Unit	Requirement	Result	Test Method
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l	--	15	APHA 24th Edition (5220 B):2023
ii Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	30	3	APHA 24th Edition (5210 B):2023
iii Total Suspended Solids.	mg/l, Max	100	6.0	APHA 24th Edition (2540 D):2023
iv Oil & Grease	mg/l	--	<1.0	APHA 24th Edition (5520 C):2023
v Total Nitrogen	mg/l	--	<5.0	APHA 24th Edition (4500-Norg-B):2023
vi Amonnical Nitrogen (as N)	mg/l	--	<0.5	APHA 24th Edition (4500-NH3-C):2023
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.85	APHA 24th Edition (4500-H+B):2023

Remarks : -

Standard specification as per G.S.R. 1265(E), MOEF & CC, 13th OCTOBER 2017

The results relate only to samples tested and test parameters

Any unusual feature observed during determination : NIL

Customer information if any :NIL

Conformity statement as per decision rule, If applicable :N/A

Analysed By

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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



KALYANI LABORATORIES PVT. LTD.

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



TEST REPORT



TC-12063

NABL ULR NO : TC1206323000018756
Test Report No : KLPL/11/23/WATER/09739A
Amendment No : -
Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt : 22-Nov-2023 **Test Commenced On** : 22-Nov-2023 **Test Completion On** : 28-Nov-2023
Sample Description : STP OUTLET WATER
Sample Condition : SEALED IN PET BOTTLE
Sample Identification : STP OUTLET WATER
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT STP OUTLET, DATE-21.11.2023
Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)
Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Requirement	Result	Test Method
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l	--	17	APHA 24th Edition (5220 B):2023
ii Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	30	4.0	APHA 24th Edition (5210 B):2023
iii Total Suspended Solids.	mg/l, Max	100	6.8	APHA 24th Edition (2540 D):2023
iv Oil & Grease	mg/l	--	<1.0	APHA 24th Edition (5520 C):2023
v Total Nitrogen	mg/l	--	<5.0	APHA 24th Edition (4500-Norg-B):2023
vi Ammonical Nitrogen (as N)	mg/l	--	<0.5	APHA 24th Edition (4500-NH3-C):2023
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.8	APHA 24th Edition (4500-H+B):2023

Remarks : -

Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th OCTOBER 2017

The results relate only to samples tested and test parameters

Any unusual feature observed during determination : NIL

Customer information if any :NIL

Conformity statement as per decision rule, If applicable :N/A

Analysed By

D Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory

Dr. Debasis Biswal

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd

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



Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

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

TEST REPORT



Test Report No : KLPL/11/23/WATER/09739A **Issue Date** : 29-Nov-2023
Amendment No : - **Amendment Date** : -
Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt : 22-Nov-2023 **Test Commenced On** : 22-Nov-2023 **Test Completion On** : 28-Nov-2023
Sample Description : STP OUTLET WATER
Sample Condition : SEALED IN PET BOTTLE
Sample Identification : STP OUTLET WATER **Sampling Date** : 21-Nov-2023
Batch No, Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT STP OUTLET, DATE-21.11.2023
Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)
Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
1. Faecal Coliform	MPN/100ml.	<1000	67	IS 1622:1981, RA 2009

Remarks : -

Any unusual feature observed during determination : NIL

Analysed By

Smruti S. Panda

Miss. Smruti Sephali Panda
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory

Rekha Nayak
Dr. Rekha Nayak 29/11/2023
For Kalyani Laboratories Pvt. Ltd

End of Test Report





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TEST REPORT

NABL ULR NO : TC1206323000018326



TC-12063

Test Report No : 8207 | 211474796KLPL/10/23/WATER/09668 Issue Date: 06-Nov-2023
Amendment No : - Amendment Date : -
Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt : 28-Oct-2023 Test Commenced On : 28-Oct-2023 Test Completion On: 04-Nov-2023
Sample Description : STP OUTLET WATER

Sample Condition : SEALED IN PET BOTTLE
Sample Identification : STP OUTLET WATER Sampling Date : 27-Oct-2023
Batch No , Lot No : NA MFG Date : NA EXP Date : NA
Received Quantity : 1LTR X 2 Place of Collection : PLANT STP OUTLET, DATE-27.10.2023
Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)
Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Requirement	Result	Test Method
CHEMICAL PARAMETER				
i Chemical Oxygen Demand	mg/l	--	20	APHA 24th Edition (5220 B):2023
ii Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	30	5.0	APHA 24th Edition (5210 B):2023
iii Total Suspended Solids.	mg/l, Max	100	7.2	APHA 24th Edition (2540 D):2023
iv Oil & Grease	mg/l	--	<1.0	APHA 24th Edition (5520 C):2023
v Total Nitrogen	mg/l	--	<5.0	APHA 24th Edition (4500-Norg-B):2023
vi Amonnical Nitrogen (as N)	mg/l	--	<0.5	APHA 24th Edition (4500-NH3-C):2023
PHYSICAL PARAMETER				
i pH value	---	6.5-9.0	7.9	APHA 24th Edition (4500-H+B):2023

Remarks : -

Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th OCTOBER 2017

The results relate only to samples tested and test parameters

Any unusual feature observed during determination : NIL

Customer information if any : NIL

Conformity statement as per decision rule, If applicable : N/A

Analysed By

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorized Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd

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



KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA

TEST REPORT



Test Report No : 8207 | 211474796KLPL/10/23/WATER/09668 **Issue Date:** 06-Nov-2023
Amendment No : - **Amendment Date** : -
Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt : 28-Oct-2023 **Test Commenced On** : 28-Oct-2023 **Test Completion On** : 04-Nov-2023
Sample Description : STP OUTLET WATER

Sample Condition : SEALED IN PET BOTTLE
Sample Identification : STP OUTLET WATER **Sampling Date** : 27-Oct-2023
Batch No , Lot No : NA **MFG Date** : NA **EXP Date** : NA
Received Quantity : 1LTR X 2 **Place of Collection** : PLANT STP OUTLET, DATE-27.10.2023
Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)
Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Requirement	Result	Test Method
BACTERIOLOGICAL QUALITY				
I Feacal Coliform	MPN/100ml.	<1000	72	IS 1622:1981, RA 2009

Remarks : -

Any unusual feature observed during determination : NIL

Analysed By

Smruti S. panda

Miss. Smruti Sephali Panda
For Kalyani Laboratories Pvt. Ltd.

Authorized Signatory

Rekha Nayak
Dr. Rekha Nayak 6/11/2023
For Kalyani Laboratories Pvt. Ltd



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

8207 | 211474796

Page 1 of 1

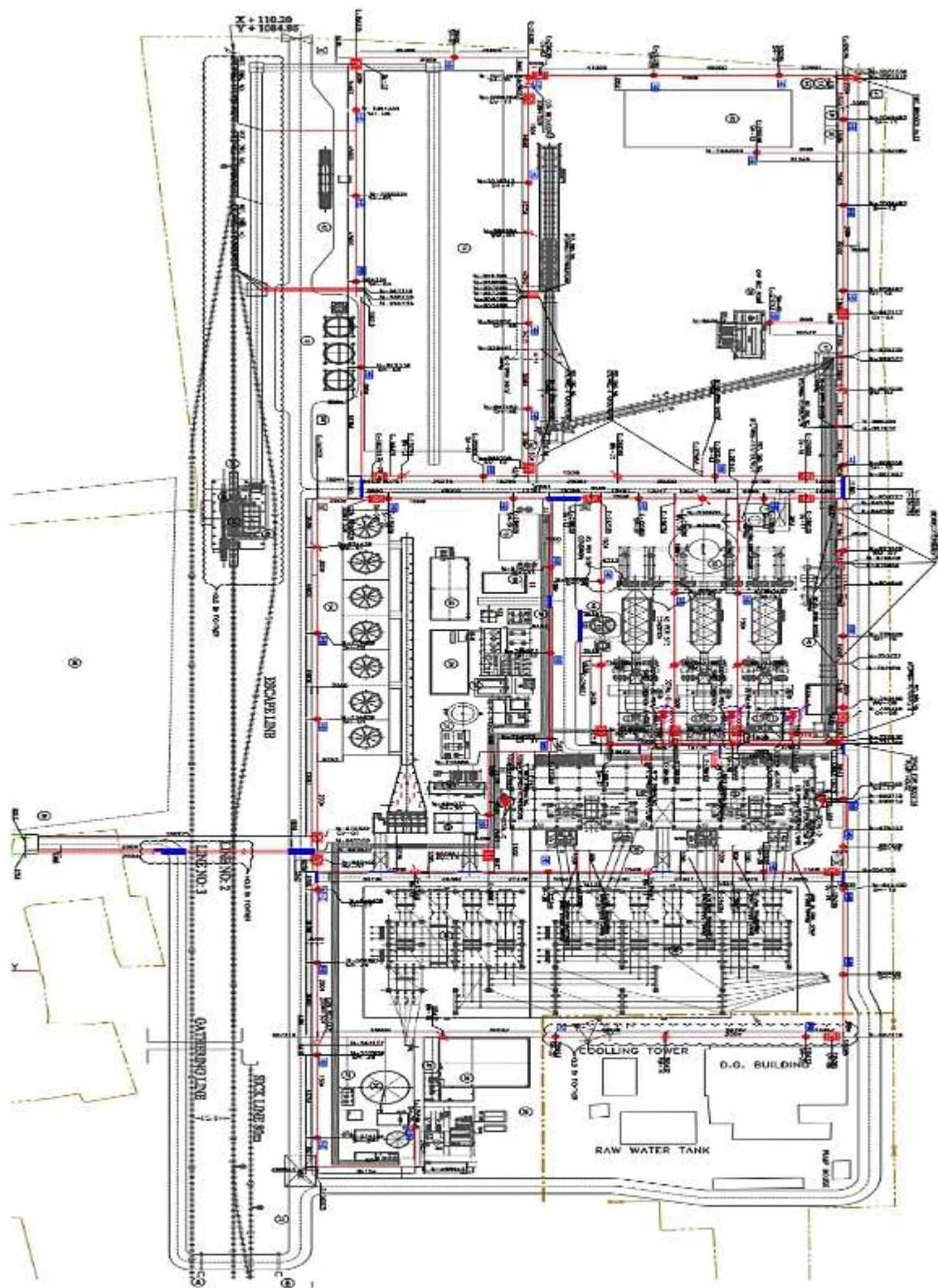
KLPL- 364152A

Annexure 5



Rooftop Rainwater Harvesting Structures.

Fire Hydrant Line Superimposed with Factory Layout



LIST OF EQUIPMENT		
ITEM No.	DESCRIPTION	Qty.
1	STG BUILDING – GROUND FLOOR–0.000M	1
	MEZZANINE FLOOR–5.000M	1
	OPERATING FLOOR–10.500M	1
2	BOILER	3
3	CHIMNEY	1
4	COOLING TOWER	1
5	CW PUMP HOUSE	1
6	RAW / FIRE WATER RESERVOIR	1
7	WATER TREATMENT PLANT	1
8	CPP SWITCH YARD	1
9	OPTCL SWITCHYARD	1
10	EXISTING 132 KV SWITCH YARD FOR FACOR	1
11	HSD TANK FARM	1
12	FLY ASH SILO	3
13	AIR COMPRESSOR & MCC ROOM	1
14	COAL STOCK PILE	1
15	GROUND HOPPER	1
16	PRIMARY CRUSHER HOUSE	1
17	SECONDARY CRUSHER HOUSE	1
18	–	–
19	TRANSFER TOWER	4
20	CW MCC ROOM	1
21	SIDE STEAM FILTER	1
22	TUNNEL	1
23	WAGON TIPPLER COMPLEX	1
24	CHP MCC ROOM	1
25	COAL UNLOADING MCC ROOM	1
26	RAW WATER CLARIFIER	1
27	PLACE FOR SLUDGE DRYING	1
28	–	–
29	GUARD POND	1
30	CULVERT	1
31	SOFTNER PLANT	1
32	SOFT WATER TANK	1
33	SECURITY OFFICE	2
34	TIME OFFICE	1
35	MEDICAL CENTER (FIRST AID)	1
36	CLARIFIED WATER STORAGE TANK	1
37	CLARIFIED WATER PUMP HOUSE	1
38	EFFLUENT TREATMENT PLANT	1
39	RW/FW PUMP HOUSE	1
40	RAILWAY CROSSING	1
41	CUBICAL ROOM	1
42	WEIGH BRIDGE	1
43	CENTRAL STORE	1
44	TOILET	3
45	ESP MCC ROOM	1
46	WAGON TIPPLER HOPPER	1
47	WAGON TIPPLER	1
48	DG HOUSE	1
49	BED ASH SILO	1
50	SERVICE WATER TANK	1

SR. NO.	DESCRIPTION	SH	WM	F E H	TOTAL EQUIVALENT
1	NO. OF SINGLE HYDRANT (SH)	48	15	18	111
2	NO. OF HOSE BOXES (HB) 1.5 Mtr	48	–	18	66

 vedanta transforming for good	MOCK DRILL ASSESSMENT REPORT		
DOC. NO. FACOR-IMS-FSF-08			
Issue No.: 01	Issuedate:01.11.2021	Revision date : --	Revision No. : 00

Mock Drill On Chemical Disaster

Date & Time: 11.01.2024 & 09.56 hours

Location: HSD Tank Area (PP)

Drill Start Time: 09.56 hours

Drill End Time: 10.56 hours

Total time of the

Drill: 60 Minutes

Emergency Scenario:

The mechanical crew entered the HSD storage area in accordance with the issued PTW. Upon arrival, they identified an HSD leak from a flange within the dyke wall. Both personnel promptly exited the HSD area and reported the incident to the Emergency Control Room/in charge.

Following internal communication, a Level-1 siren was activated. The QRT vehicle, along with QRT members, secured both sides of the affected area to prevent unauthorized access. Subsequently, the Combat Team and Auxiliary Team, accompanied by an ambulance, arrived at the site.

The Combat Team initiated their activities, while the Fire Fighting Team assumed positions with a foam-type fire-fighting system. A minor spark led to a fire during the spillage control activity. In the evacuation process, a member of the combat team fell within the HSD area. The Medical team promptly arrived for rescue, and the injured person was transported to the first aid center by ambulance.

Due to the escalating fire magnitude, a Level-2 emergency was declared, prompting the arrival of the Fire Tender from the district fire station. Both the internal fire team and district fire services team engaged in firefighting activities. Firefighting efforts ceased as the fire came under control, with discontinuation of foam-type fire extinguishing media. The internal fire team utilized Water Monitor & Tank Sprinkler systems to cool down the HSD tank, and the water deluge system was activated for additional cooling.

The ODRAF team arrived, and the team leader briefed the members on the situation and necessary actions. ODRAF conducted spill control and area clearance, with support from the Combat team using spill kits and hazardous waste containers. An injury occurred during spill control, and the injured person, belonging to the internal team, was transported to the ambulance.

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Issue No.: 01
Issuedate:01.11.2021
Revision date : --
Revision No. : 00

The "APADA MITRA" team, a wing of ODRAF, entered the site to assist with spill control. After completing their tasks, ODRAF cleared the area. Two members of the Combat team, equipped with safety gear, successfully addressed the leaking point using SCBA and protective clothing. The leakage was effectively stopped, and an all-clear siren signaled the conclusion of the incident. A closing briefing was conducted to review the response and actions taken.

Sequence of Event:

Time (HRS)	Event Description
9:56	Mechanical CREW entered inside the HSD storage area to perform some activity as per the PTW issued.
9:56	After entering the site, they observed that HSD is leaking from one of the flanges which is inside the dike wall.
9:57	Both workers walked out loudly from the HSD area. Then, they communicated the incident with their supervisor/in charge and ambulance.
9:59	After internal communications. Level-1 siren blown.
10:01	QRT vehicle arrived at site. (Round-1)
10:02	QRT members barricaded both sides of the affected area to restrict unauthorized access.
10:02	Combat Team arrived at site.
10:02	Auxiliary Team arrived at site.
10:03	Ambulance arrived at site.
10:03	Combat activity started.
10:04	QRT vehicle arrived at site with the rescue team. (Round-2)
10:05	Fire Team took position with foam type fire fighting system.
10:07	QRT team arrived. (Round-3)
10:09	QRT team arrived. (Round-4)

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Issue No.: 01
Issuedate:01.11.2021
Revision date : --
Revision No. : 00

10:14	Little spark converted to fire during the combat activity.
10:14	During evacuation, one person of the combat team fell on the ground inside the HSD area.
10:14	Medical team arrived at the location for rescue.
10:15	Ambulance left with the injured person to the first aid center.
10:15	Due to high magnitude of Fire, Level-2 emergency is declared, and siren is blown.
10:17	Fire Tender from the district fire station arrived at site.
10:17	Internal fire team started firefighting.
10:17	District fire services team started firefighting.
10:21	District fire services team changed their angle of firefighting.
10:21	Firefighting stopped as the fire is now under control. (Stopped the use of Foam type fire extinguishing media)
10:22	Water type fire extinguishing media used to cool down the HSD tank. (by both district fire team and internal fire team)
10:22	Water deluge system of the HSD tank is activated for cooling purpose.
10:23	Ambulance arrived at site.
10:23	Deluge system stopped and again restated after a gap of 30 sec approximately.
10:25	ODRAF (Odisha Disaster Rapid Action Force) team arrived at the location.
10:25	Deluge system stopped.
10:26	ODRAF team leader briefed his team members regarding the situation and action.
10:27	ODRAF team entered the site for spill control / area clear.
10:27	The combat team arrived to assist the ODRAF team for spill control. (Spill kits and hazardous waste dust bins are used.)

DOC. NO. FACOR-IMS-FSF-08
Issue No.: 01
Issuedate:01.11.2021
Revision date : --
Revision No. : 00

10:32	One of the persons was injured during the spill control activity. (Internal team)
10:33	Injured person is shifted to the ambulance.
10:35	"APADA MITRA" team (wing of ODRAF) entered inside the site to assist spill control.
10:38	ODRAF team completed its job and cleared the area.
10:39	All clear declared by ODRAF team.
10:40	Two people from the combat team came with all safety gears to arrest the leaking point. (SCBA & protective clothing were used)
10:42	Leakage is arrested.
10:44	All clear siren is blown.
10:45	Closing briefing started.

Observations

S No	Points	Responsibility	Timeline	Status
2	A Fire Bucket Stand is provided at the back side of the HSD storage area which is not easily accessible. It should be provided near the entry gate / in an approachable area.	Motiur Rahman	13.01.2024	Completed
3	Secondary exit provision is recommended for the highly hazardous areas like HSD storage area.	Balmiki Rout	15.02.2023	Completed
4	Handrail is not provided for the concrete stairs aside the dike wall to enter inside the storage tank area.	Aditya Sahu	15.03.2024	Completed
5	HSD tank area was not locked.	Balmiki Rout	Immediate	Completed

DOC. NO. FACOR-IMS-FSF-08
Issue No.: 01
Issuedate:01.11.2021
Revision date : --
Revision No. : 00

6	Mechanical workers came inside the HSD storage area with mobile phones.	Area In charge	Immediate	Completed
7	After the observation of the leak, they left the area unattended. They must wait in a safe distance till the combat team arrives at site. This is required to avoid communication gap.	Motiur Rahman	Immediate	Completed
8	In the ALS ambulance- There is no hand stretcher available which is appropriate for shifting of injured person.	Sanjeeb Patra		Completed
10	While the internal fire team started firefighting, the fire hose got disconnected & damaged (detached from its fittings). Approximately 30 sec lost due to the same.	Motiur Rahman	13.01.2024	Completed
11	Internal fire team was not directing the hose as per the wind direction.	Motiur Rahman	Immediate	Completed
12	Hand gloves were not used by the Internal fire team.	Motiur Rahman	Immediate	Completed

Positive Observations

S No.	Positive Observation:
1	Barrication of area on time.
2	The workforce remained calm, while the mock drill was in progress, and showed keen interest in getting knowledge about the emergency.
3	Workers were briefed about the emergency response procedure and fire Emergency.
4	Emergency contact number displayed, and all workers are aware of emergency contact number.

DOC. NO. FACOR-IMS-FSF-08**Issue No.: 01****Issuedate:01.11.2021****Revision date : --****Revision No. : 00**

5	Ambulance siren was in working condition.
6	Communication was well enough to reach the incident place in right time.
7	Response time of electrician was excellent to disconnect the power supply.
8	Emergency Siren Bowed.
9	Incident controller reached the location once received information.

Total 60 Persons Present During Mock Drill

Name of the Observer:

1. Manoj Patra (Sub Collector)
2. Tanmita Kara (Dy. Collector)
3. Umesh Chandra Sutar (Deputy Director of Factories & Boiler)
4. Sanjeeb Pradhan (Dist. Fire Officer)
5. Ranjan Nayak (Safety officer)

DOC. NO. FACOR-IMS-FSF-08

Issue No.: 01

Issuedate:01.11.2021

Revision date : --

Revision No. : 00



DOC. NO. FACOR-IMS-FSF-08
Issue No.: 01
Issuedate:01.11.2021
Revision date : --
Revision No. : 00


TEST REPORT

Test Report No	: KLPL/03/24/ENVN/00119	Issue Date	: 05-April-2024
Amendment No	: -	Amendment Date	: -
Reference	: PO NUMBER :FPPL/3100006601,DATE-8.11.2022		
Customer Name	: POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.		
Address	: D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA		
Date of receipt	: 29-Mar-2024	Commenced On :	29-Mar-2024
		Completion On:	29-Mar-2024
Sample Name	: NOISE		
Sample Condition	: --		
Sample Collected By	: MR. SUDHIR KUMAR BARIK		
Ref.To Sampling Procedure	: KLPL/NOISE/SOP-23		
Parameters	Unit	Standard Value	Results
Test Method			
Location & Date : INSIDE CONTROL ROOM, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	60.8
			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	51.4
			IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ADMIN OFFICE, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	62.9
			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.4
			IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-1, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	68.4
			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	59.5
			IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-2, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	70.2
			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	63.0
			IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-3, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	72.0
			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.6
			IS 9989:1981 (RA 2014):2014
Location & Date : NEAR COMPRESSOR HOUSE, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	66.6
			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	58.8
			IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ESP ID FAN-3, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	67.0
			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	56.2
			IS 9989:1981 (RA 2014):2014
Location & Date : DM PLANT, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	67.4
			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.6
			IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ESP ID FAN-1, DATE-28.03.2024			
Noise Level Indl. Area (Day)	dB(A)	75	64.8
			IS 9989:1981 (RA 2014):2014

KLPL

LABORATORIES PVT. LTD.

ISO 9001:2015

ISO 14001:2015

ISO 45001:2018

ISO 50001:2018

ISO 26001:2017

ISO 27001:2017

ISO 28001:2017

ISO 29001:2017

ISO 30001:2017

ISO 31001:2017

ISO 34001:2017

ISO 35001:2017

ISO 36001:2017

ISO 37001:2017

ISO 38001:2017

ISO 39001:2017

ISO 40001:2017

ISO 41001:2017

ISO 42001:2017

ISO 43001:2017

ISO 44001:2017

ISO 45001:2018

ISO 46001:2017

ISO 47001:2017

ISO 48001:2017

ISO 49001:2017

ISO 50001:2018

ISO 51001:2017

ISO 52001:2017

ISO 53001:2017

ISO 54001:2017

ISO 55001:2017

ISO 56001:2017

ISO 57001:2017

ISO 58001:2017

ISO 59001:2017

ISO 60001:2017

ISO 61001:2017

ISO 62001:2017

ISO 63001:2017

ISO 64001:2017

ISO 65001:2017

ISO 66001:2017

ISO 67001:2017

ISO 68001:2017

ISO 69001:2017

ISO 70001:2017

ISO 71001:2017

ISO 72001:2017

ISO 73001:2017

ISO 74001:2017

ISO 75001:2017

ISO 76001:2017

ISO 77001:2017

ISO 78001:2017

ISO 79001:2017

ISO 80001:2017

ISO 81001:2017

ISO 82001:2017

ISO 83001:2017

ISO 84001:2017

ISO 85001:2017

ISO 86001:2017

ISO 87001:2017

ISO 88001:2017

ISO 89001:2017

ISO 90001:2017

ISO 91001:2017

ISO 92001:2017

ISO 93001:2017

ISO 94001:2017

ISO 95001:2017

ISO 96001:2017

ISO 97001:2017

ISO 98001:2017

ISO 99001:2017

ISO 100001:2017

ISO 101001:2017

ISO 102001:2017

ISO 103001:2017

ISO 104001:2017

ISO 105001:2017

ISO 106001:2017

ISO 107001:2017

ISO 108001:2017

ISO 109001:2017

ISO 110001:2017

ISO 111001:2017

ISO 112001:2017

ISO 113001:2017

ISO 114001:2017

ISO 115001:2017

ISO 116001:2017

ISO 117001:2017

ISO 118001:2017

ISO 119001:2017

ISO 120001:2017

ISO 121001:2017

ISO 122001:2017

ISO 123001:2017

ISO 124001:2017

ISO 125001:2017

ISO 126001:2017

ISO 127001:2017

ISO 128001:2017

ISO 129001:2017

ISO 130001:2017

ISO 131001:2017

ISO 132001:2017

ISO 133001:2017

ISO 134001:2017

ISO 135001:2017

ISO 136001:2017

ISO 137001:2017

ISO 138001:2017

ISO 139001:2017

ISO 140001:2017

ISO 141001:2017

ISO 142001:2017

ISO 143001:2017

ISO 144001:2017

ISO 145001:2017

ISO 146001:2017

ISO 147001:2017

ISO 148001:2017

ISO 149001:2017

ISO 150001:2017

ISO 151001:2017

ISO 152001:2017

ISO 153001:2017

ISO 154001:2017

ISO 155001:2017

ISO 156001:2017

ISO 157001:2017

ISO 158001:2017

ISO 159001:2017

ISO 160001:2017

ISO 161001:2017

ISO 162001:2017

ISO 163001:2017

ISO 164001:2017

ISO 165001:2017

ISO 166001:2017

ISO 167001:2017

ISO 168001:2017

ISO 169001:2017

ISO 170001:2017

ISO 171001:2017

ISO 172001:2017

ISO 173001:2017

ISO 174001:2017

ISO 175001:2017

ISO 176001:2017

ISO 177001:2017

ISO 178001:2017

ISO 179001:2017

ISO 180001:2017

ISO 181001:2017

ISO 182001:2017

ISO 183001:2017

ISO 184001:2017

ISO 185001:2017

ISO 186001:2017

ISO 187001:2017

ISO 188001:2017

ISO 189001:2017

ISO 190001:2017

ISO 191001:2017

ISO 192001:2017

ISO 193001:2017

ISO 194001:2017

ISO 195001:2017

ISO 196001:2017

ISO 197001:2017

ISO 198001:2017

ISO 199001:2017

ISO 200001:2017

ISO 201001:2017

ISO 202001:2017

ISO 203001:2017

ISO 204001:2017

ISO 205001:2017

ISO 206001:2017

ISO 207001:2017

ISO 208001:2017

ISO 209001:2017

ISO 210001:2017

ISO 211001:2017

ISO 212001:2017

ISO 213001:2017

ISO 214001:2017

ISO 215001:2017

ISO 216001:2017

ISO 217001:2017

ISO 218001:2017

ISO 219001:2017

ISO 220001:2017

ISO 221001:2017

ISO 222001:2017

ISO 223001:2017

ISO 224001:2017

ISO 225001:2017

ISO 226001:2017

ISO 227001:2017

ISO 228001:2017

ISO 229001:2017

ISO 230001:2017

ISO 231001:2017

ISO 232001:2017

ISO 233001:2017

ISO 234001:2017

ISO 235001:2017

ISO 236001:2017

ISO 237001:2017

ISO 238001:2017

ISO 239001:2017

ISO 240001:2017

ISO 241001:2017

ISO 242001:2017

ISO 243001:2017

ISO 244001:2017

ISO 245001:2017

ISO 246001:2017

ISO 247001:2017

ISO 248001:2017

ISO 249001:2017

ISO 250001:2017

ISO 251001:2017

ISO 252001:2017

ISO 253001:2017

ISO 254001:2017

ISO 255001:2017

ISO 256001:2017

ISO 257001:2017

ISO 258001:2017

ISO 259001:2017

ISO 260001:2017

ISO 261001:2017

ISO 262001:2017

ISO 263001:2017

ISO 264001:2017

ISO 265001:2017

ISO 266001:2017

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ISO 270001:2017

ISO 271001:2017

ISO 272001:2017

ISO 273001:2017

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ISO 293001:2017

ISO 294001:2017

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ISO 297001:2017

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ISO 299001:2017

ISO 300001:2017

ISO 301001:2017

ISO 302001:2017

ISO 303001:2017

ISO 304001:2017

ISO 305001:2017

ISO 306001:2017

ISO 307001:2017

ISO 308001:2017

ISO 309001:2017

ISO 310001:2017

ISO 311001:2017

ISO 312001:2017

ISO 313001:2017

ISO 314001:2017

ISO 315001:2017

ISO 316001:2017

ISO 317001:2017

ISO 318001:2017

ISO 319001:2017

ISO 320001:2017

ISO 321001:2017

ISO 322001:2017

ISO 323001:2017

ISO 324001:2017

ISO 325001:2017

ISO 326001:2017

ISO 327001:2017

ISO 328001:2017

ISO 329001:2017

ISO 330001:2017

ISO 331001:2017

ISO 332001:2017

ISO 333001:2017

ISO 334001:2017

ISO 335001:2017

ISO 336001:2017

ISO 337001:2017

ISO 338001:2017

ISO 339001:2017

ISO 340001:2017

ISO 341001:2017

ISO 342001:2017

ISO 343001:2017

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ISO 349001:2017

ISO 350001:2017

ISO 351001:2017

ISO 352001:2017

ISO 353001:2017

ISO 354001:2017

ISO 355001:2017

ISO 356001:2017

ISO 357001:2017

ISO 358001:2017

ISO 359001:2017

ISO 360001:2017

ISO 361001:2017

ISO 362001:2017

ISO 363001:2017

ISO 364001:2017

ISO 365001:2017

ISO 366001:2017

ISO 367001:2017

ISO 368001:2017

ISO 369001:2017

ISO 370001:2017

ISO 371001:2017

ISO 372001:2017

ISO 373001:2017

ISO 374001:2017

ISO 375001:2017

ISO 376001:2017

ISO 377001:2017

ISO 378001:2017

ISO 379001:2017

ISO 380001:2017

ISO 381001:2017

ISO 382001:2017

ISO 383001:2017

ISO 384001:2017

ISO 385001:2017

ISO 386001:2017

ISO 387001:2017

ISO 388001:2017

ISO 389001:2017

ISO 390001:2017

ISO 391001:2017

ISO 392001:2017

ISO 393001:2017

ISO 394001:2017

ISO 395001:2017

ISO 396001:2017

ISO 397001:2017

ISO 398001:2017

ISO 399001:2017

ISO 400001:2017

ISO 401001:2017

ISO 402001:2017

ISO 403001:2017

ISO 404001:2017

ISO 405001:2017

ISO 406001:2017

ISO 407001:2017

ISO 408001:2017

ISO 409001:2017

ISO 410001:2017

ISO 411001:2017

ISO 412001:2017

ISO 413001:2017

ISO 414001:2017

ISO 415001:2017

ISO 416001:2017

ISO 417001:2017

ISO 418001:2017

ISO 419001:2017

ISO 420001:2017

ISO 421001:2017

ISO 422001:2017

ISO 423001:2017

ISO 424001:2017

ISO 425001:2017

ISO 426001:2017

ISO 427001:2017

ISO 428001:2017

ISO 429001:2017

ISO 430001:2017

ISO 431001:2017

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ISO 433001:2017

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ISO 437001:2017

ISO 438001:2017

ISO 439001:2017

ISO 440001:2017

ISO 441001:2017

ISO 442001:2017

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ISO 448001:2017

ISO 449001:2017

ISO 450001:2017

ISO 451001:2017

ISO 452001:2017

ISO 453001:2017

ISO 454001:2017

ISO 455001:2017

ISO 456001:2017

ISO 457001:2017

ISO 458001:2017

ISO 459001:2017

ISO 460001:2017

ISO 461001:2017

ISO 462001:2017

ISO 463001:2017

ISO 464001:2017

ISO 465001:2017

ISO 466001:2017

ISO 467001:2017

ISO 468001:2017

ISO 469001:2017

ISO 470001:2017

ISO 471001:2017

ISO 472001:2017

ISO 473001:2017

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ISO 488001:2017

ISO 489001:2017

ISO 490001:2017

ISO 491001:2017

ISO 492001:2017

ISO 493001:2017

ISO 494001:2017

ISO 495001:2017

ISO 496001:2017

ISO 497001:2017

ISO 498001:2017

ISO 499001:2017

ISO 500001:2017

ISO 501001:2017

ISO 502001:2017

ISO 503001:2017

ISO 504001:2017

ISO 505001:2017

ISO 506001:2017

ISO 507001:2017

ISO 508001:2017

ISO 509001:2017

ISO 510001:2017

ISO 511001:2017

ISO 512001:2017

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ISO 515001:2017

ISO 516001:2017

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ISO 518001:2017

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ISO 520001:2017

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ISO 523001:2017

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ISO 525001:2017

ISO 526001:2017

ISO 527001:2017

ISO 528001:2017

ISO 529001:2017

ISO 530001:2017

ISO 531001:2017

ISO 532001:2017

ISO 533001:2017

ISO 534001:2017

ISO 535001:2017

ISO 536001:2017

ISO 537001:2017

ISO 538001:2017

ISO 539001:2017

ISO 540001:2017

ISO 541001:2017

ISO 542001:2017

ISO 543001:2017

ISO 544001:2017

ISO 545001:2017

ISO 546001:2017

ISO 547001:2017

ISO 548001:2017

ISO 549001:2017

ISO 550001:2017

ISO 551001:2017

ISO 552001:2017

ISO 553001:2017

ISO 554001:2017

ISO 555001:2017

ISO 556001:2017

ISO 557001:2017

ISO 558001:2017

ISO 559001:2017

ISO 560001:2017

ISO 561001:2017

ISO 562001:2017

ISO 563001:2017

ISO 564001:2017

ISO 565001:2017

ISO 566001:2017

ISO 567001:2017

ISO 568001:2017

ISO 569001:2017

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ISO 571001:2017

ISO 572001:2017

ISO 573001:2017

ISO 574001:2017

ISO 575001:2017

ISO 576001:2017

ISO 577001:2017

ISO 578001:2017

ISO 579001:2017

ISO 580001:2017

ISO 581001:2017

ISO 582001:2017

ISO 583001:2017

ISO 584001:2017

ISO 585001:2017

ISO 586001:2017

ISO 587001:2017

ISO 588001:2017

ISO 589001:2017

ISO 590001:2017





Kalyani Laboratories

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



+91 9861463904

M: kalyanilab@yahoo.co.in

TEST REPORT

Test Report No : KLPL/03/24/ENVN/00119 **Issue Date** : 05-April-2024
Amendment No : - **Amendment Date** : -
Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt : 29-Mar-2024 **Commenced On** : 29-Mar-2024 **Completion On** : 29-Mar-2024
Sample Name : NOISE
Sample Condition : --
Sample Collected By : MR. SUDHIR KUMAR BARIK
Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Noise Level Indl. Area (Night)	dB(A)	70	53.5	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR ESP ID FAN-2, DATE-28.03.2024

Noise Level Indl. Area (Day)	dB(A)	75	66.2	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	57.2	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR ETP, DATE-28.03.2024

Noise Level Indl. Area (Day)	dB(A)	75	54.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	44.8	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR MAIN GATE, DATE-28.03.2024

Noise Level Indl. Area (Day)	dB(A)	75	58.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	47.3	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR PRIMARY CRUSHER, DATE-28.03.2024

Noise Level Indl. Area (Day)	dB(A)	75	70.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	62.1	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR SECONDRY CRUSHER, DATE-28.03.2024

Noise Level Indl. Area (Day)	dB(A)	75	70.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.8	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR STG CONDENSER, DATE-28.03.2024

Noise Level Indl. Area (Day)	dB(A)	75	70.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.5	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR WAGON TIPLER, DATE-28.03.2024

Noise Level Indl. Area (Day)	dB(A)	75	67.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	57.6	IS 9989:1981 (RA 2014):2014





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+91 9861463904 M: kalyanilab@yahoo.co.in

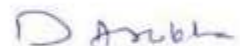
TEST REPORT

Test Report No	:	KLPL/03/24/ENVN/00119	Issue Date	:	05-April-2024
Amendment No	:	-	Amendment Date	:	-
Reference	:	PO NUMBER :FPPL/3100006601,DATE-8.11.2022			
Customer Name	:	POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.			
Address	:	D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA			
Date of receipt	:	29-Mar-2024	Commenced On :	29-Mar-2024	Completion On: 29-Mar-2024
Sample Name	:	NOISE			
Sample Condition	:	--			
Sample Collected By	:	MR. SUDHIR KUMAR BARIK			
Ref.To Sampling Procedure	:	KLPL/NOISE/SOP-23			
Parameters		Unit	Standard Value	Results	Test Method

Remarks : -

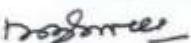
Any unusual feature observed during determination :NIL
Requirement is as per standard specification Noise Rule 2000
The results relate only to samples tested and test parameters

Analysed By


Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory


Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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



TEST REPORT

NABL ULR NO : TC1206324000001116

Test Report No : KLPL/02/24/ENVN/00094

Issue Date : 05-Mar-2024

Amendment No : -

Amendment Date : -

Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 24-Feb-2024 Commenced On : 24-Feb-2024 Completion On: 24-Feb-2024

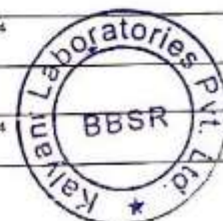
Sample Name : NOISE

Sample Condition : --

Sample Collected By : MR. SUDHIR KUMAR BARIK

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : INSIDE CONTROL ROOM, DATE-22.02.2024				
Noise Level Indl. Area (Day)	dB(A)	75	60.1	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	50.6	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ADMIN OFFICE, DATE-22.02.2024				
Noise Level Indl. Area (Day)	dB(A)	75	62.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	53.8	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-1, DATE-22.02.2024				
Noise Level Indl. Area (Day)	dB(A)	75	67.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	58.7	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-2, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	69.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	62.5	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-3, DATE-22.02.2024				
Noise Level Indl. Area (Day)	dB(A)	75	71.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.2	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR COMPRESSOR HOUSE, DATE-22.02.2024				
Noise Level Indl. Area (Day)	dB(A)	75	66.2	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	58.4	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ESP ID FAN-3, DATE-22.02.2024				
Noise Level Indl. Area (Day)	dB(A)	75	66.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	55.7	IS 9989:1981 (RA 2014):2014
Location & Date : DM PLANT, DATE-22.02.2024				
Noise Level Indl. Area (Day)	dB(A)	75	66.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.2	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ESP ID FAN-1, DATE-22.02.2024				
Noise Level Indl. Area (Day)	dB(A)	75	64.4	IS 9989:1981 (RA 2014):2014





KALYANI LABORATORIES PVT. LTD.

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+91 9861463904

M: kalyanilab@yahoo.co.in



TEST REPORT

TC-12063

NABL ULR NO	: TC1206324000001116	Issue Date	: 05-Mar-2024
Test Report No	: KLPL/02/24/ENVN/00094	Amendment Date	: -
Amendment No	: -		
Reference	: PO NUMBER : FPPL/3100006601, DATE-8.11.2022		
Customer Name	: POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.		
Address	: D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA		
Date of receipt	: 24-Feb-2024	Commenced On	: 24-Feb-2024
		Completion On	: 24-Feb-2024
Sample Name	: NOISE		
Sample Condition	: -		
Sample Collected By	: MR. SUDHIR KUMAR BARIK		
Ref.To Sampling Procedure	: KLPL/NOISE/SOP-23		

Parameters	Unit	Standard Value	Results	Test Method
Noise Level Indl. Area (Night)	dB(A)	70	53.0	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR ESP ID FAN-2, DATE-22.02.2024

Noise Level Indl. Area (Day)	dB(A)	75	65.7	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	56.8	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR ETP, DATE-23.02.2024

Noise Level Indl. Area (Day)	dB(A)	75	54.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	44.2	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR MAIN GATE, DATE-23.02.2024

Noise Level Indl. Area (Day)	dB(A)	75	57.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	46.7	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR PRIMARY CRUSHER, DATE-23.02.2024

Noise Level Indl. Area (Day)	dB(A)	75	70.1	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	61.6	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR SECONDRY CRUSHER, DATE-23.02.2024

Noise Level Indl. Area (Day)	dB(A)	75	69.7	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.2	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR STG CONDENSER, DATE-23.02.2024

Noise Level Indl. Area (Day)	dB(A)	75	70.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	63.8	IS 9989:1981 (RA 2014):2014

Location & Date : NEAR WAGON TIPLER, DATE-23.02.2024

Noise Level Indl. Area (Day)	dB(A)	75	67.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	57.1	IS 9989:1981 (RA 2014):2014





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



+91 9861463904

M: kalyanilab@yahoo.co.in



TEST REPORT

TC-12063

NABL ULR NO : TC1206324000001116

Test Report No : KLPL/02/24/ENVN/00094

Issue Date : 05-Mar-2024

Amendment No : -

Amendment Date : -

Reference

PO NUMBER : FPPL/3100006601, DATE-8.11.2022

Customer Name

POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

Address

D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA

Date of receipt

24-Feb-2024

Commenced On : 24-Feb-2024

Completion On: 24-Feb-2024

Sample Name

NOISE

Sample Condition

--

Sample Collected By

MR. SUDHIR KUMAR BARIK

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters

Unit

Standard Value

Results

Test Method

Remarks

-

Any unusual feature observed during determination : NIL

Requirement is as per standard specification Noise Rule 2000

The results relate only to samples tested and test parameters

Analysed By

D Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory

Dr. Debasis Biswal

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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



Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

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



+91 9861463904 M: kalyanilab@yahoo.co.in



TC-12063

TEST REPORT



NABL ULR NO : TC1206324000000528

Test Report No : KLPL/01/24/ENVN/00090

Issue Date : 01-Feb-2024

Amendment No : -

Amendment Date : -

Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 29-Jan-2024 Commenced On : 29-Jan-2024 Completion On : 29-Jan-2024

Sample Name : NOISE

Sample Condition : --

Sample Collected By : MR. SUDHIR KUMAR BARIK

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : DG SET-, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	64.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.1	IS 9989:1981 (RA 2014):2014
Location & Date : ADMIN BUILDING, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	63.2	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.5	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-1, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	68.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	59.5	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-2, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	70.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	63.1	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-3, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	72.2	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	65.0	IS 9989:1981 (RA 2014):2014
Location & Date : COMPRESSOR HOUSE, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	67.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	59.1	IS 9989:1981 (RA 2014):2014
Location & Date : DG SET, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	67.2	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	56.2	IS 9989:1981 (RA 2014):2014
Location & Date : DM PLANT, DATE-27.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	65.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	55.0	IS 9989:1981 (RA 2014):2014
Location & Date : ESP TD FAN, DATE-28.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	65.1	IS 9989:1981 (RA 2014):2014

Page 1 of 3
KLPL- 1001445B



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KALYANI LABORATORIES PVT. LTD.

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



+91 9861463904



M: kalyanilab@yahoo.co.in



TEST REPORT



TC-12063

NABL ULR NO : TC1206324000000528

Test Report No : KLPL/01/24/ENVN/00090

Issue Date : 01-Feb-2024

Amendment No : -

Amendment Date : -

Reference : PO NUMBER :FPPL/3100006601,DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 29-Jan-2024

Commenced On : 29-Jan-2024

Completion On: 29-Jan-2024

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Noise Level Indl. Area (Night)	dB(A)	70	53.6	IS 9989:1981 (RA 2014):2014
Location & Date : ESP TD FAN-2, DATE-28.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	66.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	57.2	IS 9989:1981 (RA 2014):2014
Location & Date : ETP, DATE-28.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	55.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	45.0	IS 9989:1981 (RA 2014):2014
Location & Date : MAIN GATE, DATE-28.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	58.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	47.4	IS 9989:1981 (RA 2014):2014
Location & Date : PRMATRY CRUSHER, DATE-28.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	71.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	62.4	IS 9989:1981 (RA 2014):2014
Location & Date : SECONDRY CRUSHER, DATE-28.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	70.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	65.0	IS 9989:1981 (RA 2014):2014
Location & Date : STG CONDENSER, DATE-28.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	70.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.4	IS 9989:1981 (RA 2014):2014
Location & Date : WAGON TIPPLER, DATE-28.01.2024				
Noise Level Indl. Area (Day)	dB(A)	75	67.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	57.6	IS 9989:1981 (RA 2014):2014





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+91 9861463904 M: kalyanilab@yahoo.co.in



TC-12063

TEST REPORT



NABL ULR NO : TC1206324000000528

Test Report No : KLPL/01/24/ENVN/00090

Issue Date : 01-Feb-2024

Amendment No : -

Amendment Date : -

Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED,

Address : D.P NAGAR, RANDJA, BHADRAK-756135, ODISHA

Date of receipt : 29-Jan-2024

Commenced On : 29-Jan-2024

Completion On: 29-Jan-2024

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
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Remarks : -

Any unusual feature observed during determination : NIL

Requirement is as per standard specification Noise Rule 2000

The results relate only to samples tested and test parameters

Analysed By

D. Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

Dr. Debas Biswal

Dr. Debas Biswal
For Kalyani Laboratories Pvt. Ltd.



KLPL- 1001045B



KALYANI LABORATORIES PVT. LTD.

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TEST REPORT



TC-12063

NABL ULR NO : TC71206323000018768

Test Report No : KLPL/12/23/ENVN/026098

Issue Date : 30-Dec-2023

Amendment No : -

Amendment Date : -

Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 26-Dec-2023

Commenced On : 26-Dec-2023

Completion On : 30-Dec-2023

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : DG SET-, DATE-23.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	64.7	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.7	IS 9989:1981 (RA 2014):2014
Location & Date : ADMIN BUILDING, DATE-23.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	63.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	55.1	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-1, DATE-23.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	69.2	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	60.3	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-2, DATE-23.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	63.8	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-3, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	72.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	65.7	IS 9989:1981 (RA 2014):2014
Location & Date : COMPRESSOR HOUSE, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	67.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	59.8	IS 9989:1981 (RA 2014):2014
Location & Date : DG SET, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	67.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	56.9	IS 9989:1981 (RA 2014):2014
Location & Date : DM PLANT, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	65.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	55.4	IS 9989:1981 (RA 2014):2014
Location & Date : ESP TD FAN, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	65.9	IS 9989:1981 (RA 2014):2014





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TEST REPORT



TC-12063

NABL ULR NO : TC71206323000018768

Test Report No : KLPL/12/23/ENVN/02609B

Issue Date : 30-Dec-2023

Amendment No : -

Amendment Date : -

Reference : PO NUMBER :FPPL/3100006601,DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 26-Dec-2023

Commenced On : 26-Dec-2023

Completion On : 30-Dec-2023

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Noise Level Indl. Area (Night)	dB(A)	70	54.3	IS 9989:1981 (RA 2014):2014
Location & Date : ESP TD FAN-2, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	66.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	57.9	IS 9989:1981 (RA 2014):2014
Location & Date : ETP, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	55.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	45.7	IS 9989:1981 (RA 2014):2014
Location & Date : MAIN GATE, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	59.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	48.1	IS 9989:1981 (RA 2014):2014
Location & Date : PRMATRY CRUSHER, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	63.0	IS 9989:1981 (RA 2014):2014
Location & Date : SECONDRY CRUSHER, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.1	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	65.5	IS 9989:1981 (RA 2014):2014
Location & Date : STG CONDENSER, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.9	IS 9989:1981 (RA 2014):2014
Location & Date : WAGON TIPPLER, DATE-24.12.2023				
Noise Level Indl. Area (Day)	dB(A)	75	68.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	58.2	IS 9989:1981 (RA 2014):2014





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PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TEST REPORT



TC-12063

NABL ULR NO : TC71206323000018768

Test Report No : KLPL/12/23/ENVN/026098

Issue Date : 30-Dec-2023

Amendment No : -

Amendment Date : -

Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 26-Dec-2023 Commenced On : 26-Dec-2023 Completion On: 30-Dec-2023

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
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Remarks : -

Any unusual feature observed during determination : NIL
Requirement is as per standard specification Noise Rule 2000
The results relate only to samples tested and test parameters

Analysed By

D. Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory

Debasis Biswal

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

End of Test Report



Kalyani Laboratories

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



TC-12063

TEST REPORT



NABL ULR NO : TC1206323000018324

Test Report No : KLPL/11/23/ENVN/02610B

Issue Date : 24-Nov-2023

Amendment No : -

Amendment Date : -

Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 22-Nov-2023 Commenced On : 22-Nov-2023

Completion On : 23-Nov-2023

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : DG SET-, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	64.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.0	IS 9989:1981 (RA 2014):2014
Location & Date : ADMIN BUILDING, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	63.1	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.2	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-1, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	69.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	60.4	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-2, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.1	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.2	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-3, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	73.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	65.9	IS 9989:1981 (RA 2014):2014
Location & Date : COMPRESSOR HOUSE, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	68.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	60.7	IS 9989:1981 (RA 2014):2014
Location & Date : DG SET, DATE-11.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	66.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	55.7	IS 9989:1981 (RA 2014):2014
Location & Date : DM PLANT, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	64.1	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	55.5	IS 9989:1981 (RA 2014):2014
Location & Date : ESP TD FAN, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	65.6	IS 9989:1981 (RA 2014):2014



KLPL- 364934A of 3



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TEST REPORT



Issue Date : 24-Nov-2023

Amendment Date : -

NABL ULR NO : TC1206323000018324

Test Report No : KLPL/11/23/ENVN/02610B

Amendment No : -

Reference : PO NUMBER : FPPL/3100006601, DATE-B.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED,

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

Date of receipt : 22-Nov-2023

Commenced On : 22-Nov-2023

Completion On : 23-Nov-2023

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Noise Level Indl. Area (Night)	dB(A)	70	54.8	IS 9989:1981 (RA 2014):2014
Location & Date : ESP TD FAN-2, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	66.7	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	59.9	IS 9989:1981 (RA 2014):2014
Location & Date : ETP, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	55.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	44.9	IS 9989:1981 (RA 2014):2014
Location & Date : MAIN GATE, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	58.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	47.5	IS 9989:1981 (RA 2014):2014
Location & Date : PRMATRY CRUSHER, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	62.5	IS 9989:1981 (RA 2014):2014
Location & Date : SECONDRY CRUSHER, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	67.1	IS 9989:1981 (RA 2014):2014
Location & Date : STG CONDENSER, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	65.1	IS 9989:1981 (RA 2014):2014
Location & Date : WAGON TIPLER, DATE-21.11.2023				
Noise Level Indl. Area (Day)	dB(A)	75	66.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	55.3	IS 9989:1981 (RA 2014):2014





Kalyani Laboratories

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



TC-12063

TEST REPORT

NABL ULR NO : TC1206323000018324

Test Report No : KLPL/11/23/ENVN/02610B

Amendment No : -

Issue Date : 24-Nov-2023

Amendment Date : -

Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 22-Nov-2023 Commenced On : 22-Nov-2023 Completion On: 23-Nov-2023

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
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Remarks : -

Any unusual feature observed during determination : NIL

Requirement is as per standard specification Noise Rule 2000

The results relate only to samples tested and test parameters

Analysed By

D. Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

Dr. Debasis Biswal

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KLPL- 365418A Page 3 of 3



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PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TEST REPORT

NABL ULR NO : TC1206323000018324



TC-12063

Test Report No : 1925 | KLPL/10/23/ENVN/02560 Issue Date : 03-Nov-2023
 Amendment No : - Amendment Date : -
 Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022
 Customer Name : POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.
 Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
 Date of receipt : 01-Nov-2023 Commenced On : 01-Nov-2023 Completion On : 03-Nov-2023
 Sample Name : NOISE
 Sample Condition : --
 Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)
 Ref.To Sampling Procedure: KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : DG SET-, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	64.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	53.2	IS 9989:1981 (RA 2014):2014
Location & Date : ADMIN BUILDING, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	62.7	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	52.4	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-1, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	70.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	63.8	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-2, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	71.2	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.6	IS 9989:1981 (RA 2014):2014
Location & Date : BOILER-3, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	72.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	66.4	IS 9989:1981 (RA 2014):2014
Location & Date : COMPRESSOR HOUSE, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	69.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	59.4	IS 9989:1981 (RA 2014):2014
Location & Date : DG SET, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	66.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	52.1	IS 9989:1981 (RA 2014):2014
Location & Date : DM PLANT, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	64.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	58.2	IS 9989:1981 (RA 2014):2014
Location & Date : ESP TD FAN, DATE-31.10.2023				
Noise Level Indl. Area (Day)	dB(A)	75	63.4	IS 9989:1981 (RA 2014):2014



KLPL- 364518A

TEST REPORT



NABL ULR NO : TC1206323000018324

Test Report No : 1925 | KLPL/10/23/ENVN/02560

Issue Date : 03-Nov-2023

Amendment No : -

Amendment Date : -

Reference : PO NUMBER :FPPL/3100006601,DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 01-Nov-2023

Commenced On : 01-Nov-2023

Completion On: 03-Nov-2023

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure: KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
Noise Level Indl. Area (Night)	dB(A)	70	54.6	IS 9989:1981 (RA 2014):2014

Location & Date : ESP TD FAN-2, DATE-31.10.2023

Noise Level Indl. Area (Day)	dB(A)	75	66.9	IS 9989:1981 (RA 2014):2014
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Noise Level Indl. Area (Night)	dB(A)	70	59.2	IS 9989:1981 (RA 2014):2014
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Location & Date : ETP, DATE-31.10.2023

Noise Level Indl. Area (Day)	dB(A)	75	54.3	IS 9989:1981 (RA 2014):2014
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Noise Level Indl. Area (Night)	dB(A)	70	43.6	IS 9989:1981 (RA 2014):2014
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Location & Date : MAIN GATE, DATE-31.10.2023

Noise Level Indl. Area (Day)	dB(A)	75	58.5	IS 9989:1981 (RA 2014):2014
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Noise Level Indl. Area (Night)	dB(A)	70	46.2	IS 9989:1981 (RA 2014):2014
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Location & Date : PRMATRY CRUSHER, DATE-31.10.2023

Noise Level Indl. Area (Day)	dB(A)	75	72.2	IS 9989:1981 (RA 2014):2014
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Noise Level Indl. Area (Night)	dB(A)	70	67.4	IS 9989:1981 (RA 2014):2014
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Location & Date : SECONDRY CRUSHER, DATE-31.10.2023

Noise Level Indl. Area (Day)	dB(A)	75	71.7	IS 9989:1981 (RA 2014):2014
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Noise Level Indl. Area (Night)	dB(A)	70	67.3	IS 9989:1981 (RA 2014):2014
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Location & Date : STG CONDENSER, DATE-31.10.2023

Noise Level Indl. Area (Day)	dB(A)	75	71.3	IS 9989:1981 (RA 2014):2014
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Noise Level Indl. Area (Night)	dB(A)	70	65.4	IS 9989:1981 (RA 2014):2014
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Location & Date : WAGON TIPLER, DATE-31.10.2023

Noise Level Indl. Area (Day)	dB(A)	75	66.4	IS 9989:1981 (RA 2014):2014
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Noise Level Indl. Area (Night)	dB(A)	70	53.2	IS 9989:1981 (RA 2014):2014
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KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TC-12063

TEST REPORT



NABL ULR NO : TC1206323000018324

Test Report No : 1925 | KLPL/10/23/ENVN/02560

Issue Date : 03-Nov-2023

Amendment No : -

Amendment Date : -

Reference : PO NUMBER :FPPL/3100006601,DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 01-Nov-2023

Commenced On : 01-Nov-2023

Completion On: 03-Nov-2023

Sample Name : NOISE

Sample Condition : --

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure: KLPL/NOISE/SOP-23

Parameters	Unit	Standard Value	Results	Test Method
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Remarks : -

Any unusual feature observed during determination :NIL

Requirement is as per standard specification Noise Rule 2000

The results relate only to samples tested and test parameters

Analysed By

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.



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

KLPL- 364516A

TEST REPORT

Test Report No : KLPL/3/24/ENVN/00118
Issue Date : 05-April-2024
Amendment No : -
Amendment Date : -



Reference : PO NUMBER : FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA

Date of receipt : 29-Mar-2024 Commenced On : 29-Mar-2024 Completion On : 03-April-2024
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK
Sample Collected By : MR. SUDHIR KUMAR BARIK
Ref.To Sampling Procedure: KLPL/SOP/AIR-20

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
Location & Date : ADMIN BUILDING, DATE:-28.03.2024					
i Benzene (C6 H6)	µg/m ³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
ii Sulphur Dioxide	µg/m ³	80	8.73	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
iii Nitrogen Dioxide	µg/m ³	80	17.59	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) : 2006
iv Particulate Matter (PM10)	µg/m ³	100	71.91	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) : 2006
v Particulate Matter (PM2.5)	µg/m ³	60	33.76	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02, Issue No.01: 2017
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.58	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m ³	180	6.5	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
ix Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05, Issue No.01: 2017
x Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
xi Arsenic (as As)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xii Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017

Location & Date : NEAR MAIN GATE, DATE:-28.03.2024

i Sulphur Dioxide	µg/m ³	80	10.58	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m ³	80	18.52	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) : 2006
iii Particulate Matter (PM10)	µg/m ³	100	62.43	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) : 2006
iv Particulate Matter (PM2.5)	µg/m ³	60	39.83	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02, Issue No.01: 2017
v Benzene (C6 H6)	µg/m ³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019



KALYANI LABORATORIES PVT.LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in

Test Report No : KLPL/3/24/ENVN/00118

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.67	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m ³	180	7.2	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017
ix Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05, Issue No.01: 2017
x Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
xi Arsenic (as As)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xii Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017

Location & Date : NEAR WAGAN GATE, DATE:- 28.03.2024

i Sulphur Dioxide	µg/m ³	80	8.76	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m ³	80	18.45	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m ³	100	76.33	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m ³	60	31.68	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02, Issue No.01:2017
v Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.52	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi Ozone (O3) (01 Hrs.)	µg/m ³	180	5.83	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017
viii Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05, Issue No.01: 2017
ix Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
x Arsenic (as As)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xi Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017
xii Benzene (C6 H6)	µg/m ³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019





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



+91 9861463904



M: kalyanilab@yahoo.co.in

Test Report No : KLPL/3/24/ENVN/00118

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
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Remarks:

Any unusual feature observed during determination : NIL

Customer information if any : —

Confirmation statement as per decision rule , if applicable : —

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Analysed By

Mr Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised By

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

TEST REPORT

NABL ULR NO : TC1206324000001109
 Test Report No : KLPL/2/24/ENVN/00093
 Issue Date : 05-Mar-2024
 Amendment No : -
 Amendment Date : -



TC-12063

Reference : PO NUMBER :FPPL/3100006601,DATE-8.11.2022
 Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
 Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA

Date of receipt : 24-Feb-2024 Commenced On : 24-Feb-2024 Completion On: 29-Feb-2024
 Sample Name : AMBIENT AIR QUALITY MONITORING
 Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK POLYTHENE BAG
 Sample Collected By : MR. SUDHIR KUMAR BARIK
 Ref.To Sampling Procedure: KLPL/QSP-07

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
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Location & Date : ADMIN BUILDING,DATE:-23.02.2024

i Sulphur Dioxide	µg/m ³	80	9.27	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m ³	80	11.19	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m ³	100	74.91	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m ³	60	30.98	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.74	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi Ozone (O3) (01 Hrs.)	µg/m ³	180	5.83	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
viii Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05,Issue No.01: 2017
ix Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
x Arsenic (as As)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xi Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017

Location & Date : NEAR MAIN GATE,DATE:-23.02.2024

xii Sulphur Dioxide	µg/m ³	80	10.04	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
xiii Nitrogen Dioxide	µg/m ³	80	14.17	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
xiv Particulate Matter (PM10)	µg/m ³	100	83.31	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
xv Particulate Matter (PM2.5)	µg/m ³	60	36.05	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017



Test Report No : KLPL/2/24/ENVN/00093

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
xvi Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.83	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
xvii Ozone (O3) (01 Hrs.)	µg/m ³	180	6.56	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
xviii Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xix Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05, Issue No.01: 2017
xx Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
xxi Arsenic (asAs)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xxii Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017

Location & Date : NEAR WAGAN GATE, DATE:- 23.02.2024

xxiii Sulphur Dioxide	µg/m ³	80	8.21	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
xxiv Nitrogen Dioxide	µg/m ³	80	13.24	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) : 2006
xxv Particulate Matter (PM10)	µg/m ³	100	70.16	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) : 2006
xxv Particulate Matter (PM2.5)	µg/m ³	60	33.62	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02, Issue No.01: 2017
xxv Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.70	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
xxv Ozone (O3) (01 Hrs.)	µg/m ³	180	7.29	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
xxi Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xxx Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05, Issue No.01: 2017
xxx Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
xxx Arsenic (asAs)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xxx Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017





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KALYANI LABORATORIES PVT.LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in

Test Report No : KLPL/2/24/ENVN/00093

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
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Remarks: --

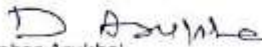
Any unusual feature observed during determination : NIL

Customer information if any : —

Confirmation statement as per decision rule , If applicable : —

To view "Terms & Conditions & NABL certificate of accreditation click report.kalyanilaboratories.com/images/NACNTC.pdf

Analysed By


Dr. Digambar Arukhal
For Kalyani Laboratories Pvt. Ltd.



Authorised By


Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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



KALYANI LABORATORIES PVT. LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in

TEST REPORT

NABL ULR NO : TC1206324000000415
Test Report No : KLPL/1/24/ENVN/00089
Issue Date : 01-Feb-2024
Amendment No : -
Amendment Date : -



TC-12063

Reference : -
Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA

Date of receipt : 29-Jan-2024 Commenced On : 29-Jan-2024 Completion On: 31-Jan-2024
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK
Sample Collected By : MR. SUDHIR KUMAR BARIK
Ref.To Sampling Procedure: KLPL/SOP/AIR-20

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
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Location & Date : ADMIN BUILDING, DATE:-28.01.2024

i Sulphur Dioxide	µg/m ³	80	11.44	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m ³	80	16.46	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) : 2006
iii Particulate Matter (PM10)	µg/m ³	100	62.30	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) : 2006
iv Particulate Matter (PM2.5)	µg/m ³	60	25.32	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02, Issue No.01:2017
v Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.62	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi Ozone (O3) (01 Hrs.)	µg/m ³	180	5.3	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017
viii Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05, Issue No.01: 2017
ix Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
x Arsenic (as As)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xi Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017

Location & Date : NEAR MAIN GATE, DATE:-28.01.2024

xii Sulphur Dioxide	µg/m ³	80	13.55	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
xiii Nitrogen Dioxide	µg/m ³	80	17.41	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) : 2006
xiv Particulate Matter (PM10)	µg/m ³	100	72.52	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) : 2006
xv Particulate Matter (PM2.5)	µg/m ³	60	30.05	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02, Issue No.01:2017



KLPL- 1001044B



KALYANI LABORATORIES PVT. LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in

Test Report No : KLPL/1/24/ENVN/00089

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
xvi Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.72	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
xvii Ozone (O3) (01 Hrs.)	µg/m ³	180	7.2	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
xviii Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017
xix Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05, Issue No.01: 2017
xx Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
xxi Arsenic (asAs)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xxii Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017

Location & Date : NEAR WAGAN GATE, DATE:- 28.01.2024

xxiii Sulphur Dioxide	µg/m ³	80	14.18	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
xxiv Nitrogen Dioxide	µg/m ³	80	17.51	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
xxv Particulate Matter (PM10)	µg/m ³	100	73.16	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
xxv Particulate Matter (PM2.5)	µg/m ³	60	34.49	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02, Issue No.01:2017
xxvi Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.75	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
xxvi Ozone (O3) (01 Hrs.)	µg/m ³	180	6.8	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
xxvii Lead (as Pb)	µg/m ³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017
xxx Ammonia (NH3)	µg/m ³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05, Issue No.01: 2017
xxx Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07, Issue No.01: 2019
xxx Arsenic (asAs)	µg/m ³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01: 2017
xxx Nickel (Ni)	µg/m ³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10, Issue No.01:2017





Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

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

+91 9861463904 M: kalyanilab@yahoo.co.in

Test Report No : KLPL/1/24/ENVN/00089

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
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Remarks:

Any unusual feature observed during determination : NIL

Customer information if any : —

Confirmation statement as per decision rule, if applicable : —

To view Terms & Conditions & NABL certificate of accreditation click report.kalyanilaboratories.com/images/NACNTC.pdf

Analysed By

D. Biswal

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.



Authorised By

D. Biswal

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

KLPL-1001447B



KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENNIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TEST REPORT



TC-12063

NABL ULR NO : TC71206323000018768

Test Report No : KLPL/12/23/ENVN/02609

Issue Date : 30-Dec-2023

Amendment No : -

Amendment Date : -

Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 26-Dec-2023 Commenced On : 26-Dec-2023 Completion On : 30-Dec-2023

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK POLYTHENE BAG

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : ADMIN BUILDING, DATE-23.12.2023				
Sulphur Dioxide	µg/m ³	80	9.76	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.85	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	61.98	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	28.59	KLPL/SOP/AIR-02, Issue No.01:2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.72	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.8	KLPL/SOP/AIR-19:2019
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10, Issue No.01:2017
Ammonia (NH3)	µg/m ³	400	<4.0	KLPL/SOP/AIR-05, Issue No.01: 2017
Benzo (a) Pyrene (BaP)	µg/m ³	01	<0.1	KLPL/SOP/AIR-07, Issue No.01: 2019
Arsenic (As)	ng/m ³	06	<1.0	KLPL/SOP/AIR-10, Issue No.01: 2017
Nickel (Ni)	ng/m ³	20	<4.0	KLPL/SOP/AIR-10, Issue No.01:2017
Location & Date : NEAR MAIN GATE, DATE-23.12.2023				
Sulphur Dioxide	µg/m ³	80	7.21	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.73	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	70.68	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	35.08	KLPL/SOP/AIR-02, Issue No.01:2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.70	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	µg/m ³	180	6.8	KLPL/SOP/AIR-19:2019
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10, Issue No.01:2017
Ammonia (NH3)	µg/m ³	400	<4.0	KLPL/SOP/AIR-05, Issue No.01: 2017
Benzo (a) Pyrene (BaP)	µg/m ³	01	<0.1	KLPL/SOP/AIR-07, Issue No.01: 2019
Arsenic (As)	ng/m ³	06	<1.0	KLPL/SOP/AIR-10, Issue No.01: 2017
Nickel (Ni)	ng/m ³	20	<4.0	KLPL/SOP/AIR-10, Issue No.01:2017
Location & Date : NEAR WAGON GATE, DATE-24.12.2023				
Sulphur Dioxide	µg/m ³	80	8.98	IS 5182(PART-2) : 2001





KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TEST REPORT



TC-12063

NABL ULR NO : TC71206323000018768

Test Report No : KLPL/12/23/ENVN/02609

Issue Date : 30-Dec-2023

Amendment No : -

Amendment Date : -

Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 26-Dec-2023 Commenced On : 26-Dec-2023 Completion On: 30-Dec-2023

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK POLYTHENE BAG

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	80	18.18	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	$\mu\text{g}/\text{m}^3$	100	77.98	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	$\mu\text{g}/\text{m}^3$	60	32.94	KLPL/SOP/AIR-02, Issue No.01:2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m^3	04	0.77	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	$\mu\text{g}/\text{m}^3$	180	6.2	KLPL/SOP/AIR-19:2019
Lead (Pb)	$\mu\text{g}/\text{m}^3$	1.0	<0.02	KLPL/SOP/AIR-10, Issue No.01:2017
Ammonia (NH3)	$\mu\text{g}/\text{m}^3$	400	<4.0	KLPL/SOP/AIR-05, Issue No.01:2017
Benzo (a) Pyrene (BaP)	$\mu\text{g}/\text{m}^3$	01	<0.1	KLPL/SOP/AIR-07, Issue No.01:2019
Arsenic (As)	ng/m^3	06	<1.0	KLPL/SOP/AIR-10, Issue No.01:2017
Nickel (Ni)	ng/m^3	20	<4.0	KLPL/SOP/AIR-10, Issue No.01:2017

Remarks : -

Any unusual feature observed during determination : NIL
Requirement is as per standard specification NAAQS:2009
The results relate only to samples tested and test parameters

Analysed By

D Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory

Dr. Debasis Biswal

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

TEST REPORT

NABL ULR NO : TC1206323000018757



Issue Date : 24-Nov-2023

Amendment Date : -

Test Report No : KLPL/11/23/ENVN/02610
Amendment No : -
Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022
Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.
Address : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt : 22-Nov-2023 **Commenced On** : 22-Nov-2023 **Completion On** : 23-Nov-2023
Sample Name : AMBIENT AIR QUALITY MONITORING
Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK POLYTHENE BAG
Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)
Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Location & Date : ADMIN BUILDING, DATE-21.11.2023				
Sulphur Dioxide	µg/m ³	80	9.67	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	16.41	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	58.48	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	28.57	KLPL/SOP/AIR-02, Issue No.01:2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.68	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.7	KLPL/SOP/AIR-19:2019
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10, Issue No.01:2017
Ammonia (NH3)	µg/m ³	400	<4.0	KLPL/SOP/AIR-05, Issue No.01: 2017
Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	KLPL/SOP/AIR-07, Issue No.01: 2019
Arsenic (As)	ng/m ³	06	<1.0	KLPL/SOP/AIR-10, Issue No.01: 2017
Nickel (Ni)	ng/m ³	20	<4.0	KLPL/SOP/AIR-10, Issue No.01:2017
Location & Date : NEAR MAIN GATE, DATE-21.11.2023				
Sulphur Dioxide	µg/m ³	80	7.28	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m ³	80	15.62	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	70.56	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	34.09	KLPL/SOP/AIR-02, Issue No.01:2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.72	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	µg/m ³	180	6.3	KLPL/SOP/AIR-19:2019
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10, Issue No.01:2017
Ammonia (NH3)	µg/m ³	400	<4.0	KLPL/SOP/AIR-05, Issue No.01: 2017
Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	KLPL/SOP/AIR-07, Issue No.01: 2019
Arsenic (As)	ng/m ³	06	<1.0	KLPL/SOP/AIR-10, Issue No.01: 2017
Nickel (Ni)	ng/m ³	20	<4.0	KLPL/SOP/AIR-10, Issue No.01:2017
Location & Date : NEAR WAGON GATE, DATE-21.11.2023				
Sulphur Dioxide	µg/m ³	80	8.94	IS 5182(PART-2) : 2001



TEST REPORT



NABL ULR NO : TC1206323000018757

Test Report No : KLPL/11/23/ENVN/02610

Issue Date : 24-Nov-2023

Amendment No : -

Amendment Date : -

Reference : P.O NO-FPPL/3100006601, DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 22-Nov-2023 **Commenced On** : 22-Nov-2023 **Completion On** : 23-Nov-2023

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK POLYTHENE BAG

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Nitrogen Dioxide	µg/m ³	80	17.87	IS 5182 (PART 6) : 2006
Particulate Matter (PM10)	µg/m ³	100	77.19	IS 5182(PART-23) : 2006
Particulate Matter (PM2.5)	µg/m ³	60	34.96	KLPL/SOP/AIR-02, Issue No.01: 2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.79	KLPL/SOP/AIR-19: 2019
Ozone (O3) (01 Hrs.)	µg/m ³	180	6.9	KLPL/SOP/AIR-19: 2019
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10, Issue No.01: 2017
Ammonia (NH3)	µg/m ³	400	<4.0	KLPL/SOP/AIR-05, Issue No.01: 2017
Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	KLPL/SOP/AIR-07, Issue No.01: 2019
Arsenic (As)	ng/m ³	06	<1.0	KLPL/SOP/AIR-10, Issue No.01: 2017
Nickel (Ni)	ng/m ³	20	<4.0	KLPL/SOP/AIR-10, Issue No.01: 2017

Remarks : -

Any unusual feature observed during determination : NIL

Requirement is as per standard specification NAAQS:2009

The results relate only to samples tested and test parameters

Analysed By

D Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory

Dr. Debasis Biswal

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

TEST REPORT

NABL ULR NO : TC1206323000018322



Test Report No : 1923 | KLPL/10/23/ENVN/02558

Issue Date : 03-Nov-2023

Amendment No : -

Amendment Date : -

Reference : P.O NO-FPPL/3100006601,DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 01-Nov-2023 **Commenced On** : 01-Nov-2023 **Completion On** : 03-Nov-2023

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure : KLPL/QSP-07

Parameters	Unit	Standard Value	Results	Test Method
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Location & Date : ADMIN BUILDING, DATE-31.10.2023

Sulphur Dioxide	µg/m ³	80	9.40	IS 5182(PART-2) : 2001 *
Nitrogen Dioxide	µg/m ³	80	16.46	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	57.23	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	27.16	KLPL/SOP/AIR-02,Issue No.01:2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.58	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	µg/m ³	180	4.3	KLPL/SOP/AIR-19:2019
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10,Issue No.01:2017
Ammonia (NH3)	µg/m ³	400	<4.0	KLPL/SOP/AIR-05,Issue No.01: 2017
Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	KLPL/SOP/AIR-07,Issue No.01: 2019
Arsenic (As)	ng/m ³	06	<1.0	KLPL/SOP/AIR-10,Issue No.01: 2017
Nickel (Ni)	ng/m ³	20	<4.0	KLPL/SOP/AIR-10,Issue No.01:2017

Location & Date : NEAR MAIN GATE, DATE-31.10.2023

Sulphur Dioxide	µg/m ³	80	7.21	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	69.58	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	33.03	KLPL/SOP/AIR-02,Issue No.01:2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.71	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	µg/m ³	180	5.9	KLPL/SOP/AIR-19:2019
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10,Issue No.01:2017
Ammonia (NH3)	µg/m ³	400	<4.0	KLPL/SOP/AIR-05,Issue No.01: 2017
Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	KLPL/SOP/AIR-07,Issue No.01: 2019
Arsenic (As)	ng/m ³	06	<1.0	KLPL/SOP/AIR-10,Issue No.01: 2017
Nickel (Ni)	ng/m ³	20	<4.0	KLPL/SOP/AIR-10,Issue No.01:2017

Location & Date : NEAR WAGON GATE, DATE-31.10.2023

Sulphur Dioxide	µg/m ³	80	8.91	IS 5182(PART-2) : 2001
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KALYANI LABORATORIES PVT. LTD.

PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-751032, ODISHA



TEST REPORT



TC-12063

NABL ULR NO : TC1206323000018322

Test Report No : 1923 | KLPL/10/23/ENVN/02558

Issue Date : 03-Nov-2023

Amendment No : -

Amendment Date : -

Reference : P.O NO-FPPL/3100006601,DATE-8.11.2022

Customer Name : POWER PLANT OF M/S FEERO ALLOYS CORPORATION LIMITED.

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

Date of receipt : 01-Nov-2023 Commenced On : 01-Nov-2023 Completion On: 03-Nov-2023

Sample Name : AMBIENT AIR QUALITY MONITORING

Sample Condition : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK

Sample Collected By : By KLPL(MR. SUDHIR KUMAR BARIK)

Ref.To Sampling Procedure: KLPL/QSP-07

Parameters	Unit	Standard Value	Results	Test Method
Nitrogen Dioxide	µg/m ³	80	17.41	IS 5182 (PART 6) :2006
Particulate Matter (PM10)	µg/m ³	100	76.88	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m ³	60	34.94	KLPL/SOP/AIR-02, Issue No.01:2017
Carbon Monoxide (CO) (01 Hrs.)	mg/m ³	04	0.77	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	µg/m ³	180	6.2	KLPL/SOP/AIR-19:2019
Lead (Pb)	µg/m ³	1.0	<0.02	KLPL/SOP/AIR-10, Issue No.01:2017
Ammonia (NH3)	µg/m ³	400	<4.0	KLPL/SOP/AIR-05, Issue No.01: 2017
Benza (a) Pyrene (BaP)	µg/m ³	01	<0.1	KLPL/SOP/AIR-07, Issue No.01: 2019
Arsenic (As)	ng/m ³	06	<1.0	KLPL/SOP/AIR-10, Issue No.01: 2017
Nickel (Ni)	ng/m ³	20	<4.0	KLPL/SOP/AIR-10, Issue No.01:2017

Remarks : -

Any unusual feature observed during determination : NIL

Requirement is as per standard specification NAAQS:2009

The results relate only to samples tested and test parameters

Analysed By

D. Arukha

Mr. Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.



Authorised Signatory

Dr. Debasis Biswal

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

ସର୍ବସାଧାରଣ ବିଜ୍ଞପ୍ତି

ଏଡ଼ୁଆରା ସର୍ବସାଧାରଣଙ୍କ ଅବଗତ କରିବା ଲିଖିତ କଥାକୁ ବିଆସାଇଅଛି ଯେ, ମେସର୍ସ ଫେକର ପାଣ୍ଡାର ଲିମିଟେଡ୍, ଡି.ପି.ନଗର, ରାୟିଆ, ଭଦ୍ରକରେ କୋଇଲାବିରିଦି ଅର୍ମାଲ ପାଣ୍ଡାର ପ୍ରାକ୍ ଦସ୍ତାବିଜ ନିମିତ୍ତ ଜଙ୍ଗଲ ଓ ପରିବେଶ ସୁରକ୍ଷା ମନ୍ତ୍ରାଳୟରୁ ପରିବେଶ ସ୍ୱୀକୃତି ପ୍ରାପ୍ତ ହୋଇଅଛି । ଏହି ସ୍ୱୀକୃତିପ୍ରାପ୍ତ କରି ରାଜ୍ୟ ପରିବେଶ ମନ୍ତ୍ରାଳୟରେ ପ୍ରାପ୍ତ ହେବ ଏବଂ ଏହା ପରିବେଶ ମନ୍ତ୍ରାଳୟର ଡ୍ରେସ୍‌ସାଇଟ୍ <http://envfor.nic.in> ରେ ମଧ୍ୟ ପ୍ରାପ୍ତ ହେବ ।

ସ୍ୱା./- ନିର୍ଦ୍ଦେଶକ
ଫେକର ପାଣ୍ଡାର ଲିମିଟେଡ୍

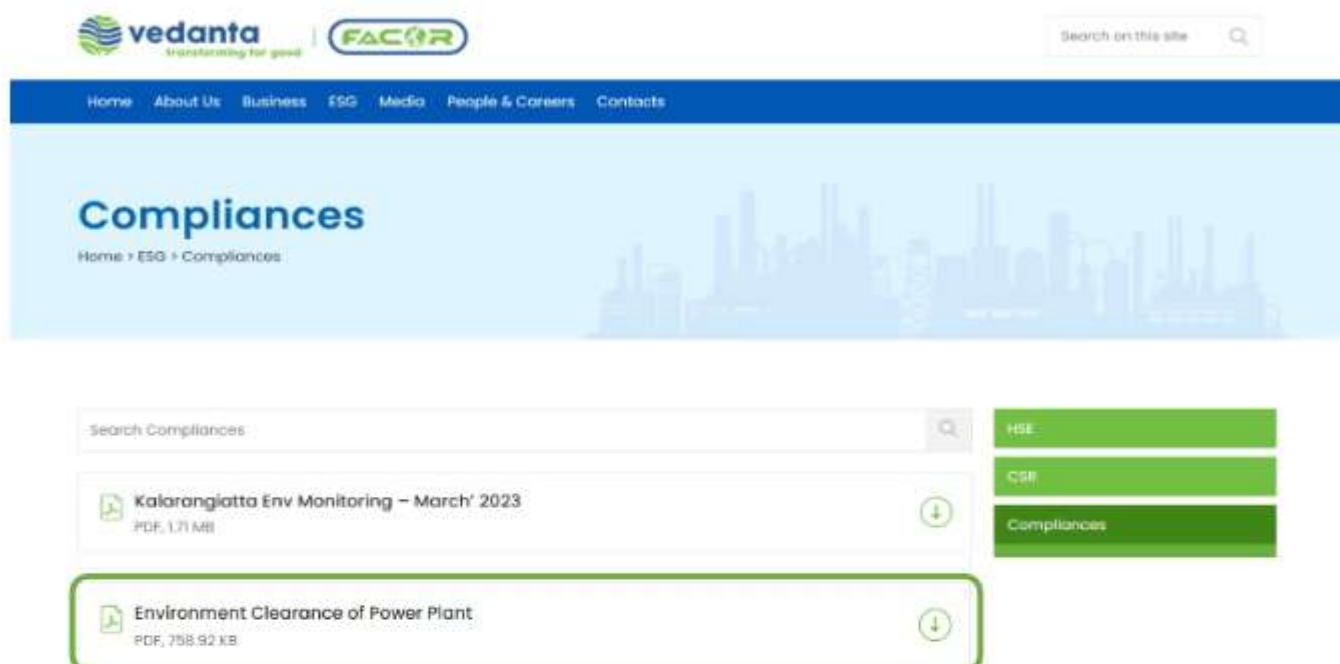
PUBLIC NOTICE

It is hereby informed to General Public that, **M/s. FACOR POWER LTD.**, accorded Environmental Clearance from Ministry of Environment and Forest for setting up a coal based thermal power plant at D.P. Nagar, Randia, Bhadrak and the copies of clearance letter are available with the state Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.

Date - 11 - 05 - 2009.

THE SAMAJ.

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Annexure 11**Environment Clearance in Company Portal**

The screenshot shows the 'Compliances' section of the FACOR portal. At the top, there is a search bar and a navigation menu with links: Home, About Us, Business, ESG, Media, People & Careers, and Contacts. The main heading is 'Compliances' with a breadcrumb trail 'Home > ESG > Compliances'. Below this, there is a search bar for 'Search Compliances'. A list of documents is displayed, including 'Kalaranglatta Env Monitoring - March' 2023' and 'Environment Clearance of Power Plant', both in PDF format. To the right, there are three green buttons labeled 'HSE', 'CSR', and 'Compliances', with the 'Compliances' button being the active one.

Annexure 12

Environment Statement in Company Portal

The screenshot displays the Vedanta Company Portal interface. At the top, the Vedanta logo (with the tagline "transforming for good") and the FACOR logo are visible on the left, and a search bar labeled "Search on this site" is on the right. A blue navigation bar contains links for Home, About Us, Business, ESG, Media, People & Careers, and Contacts. Below this, a light blue banner features the heading "Complies" and the breadcrumb "Home > ESG > Complies". The background of the banner shows a faint industrial skyline. Below the banner, there is a search bar labeled "Search Complies" and a green button labeled "HSE". A list of two documents is shown, each with a PDF icon, a title, a file size, and a download icon:

Document Title	File Size
Environmental Statement in Form-V FY 2023, Power Plant	PDF, 6.73 MB
Environmental Statement in Form-V FY 2023, Charge Chrome Plant	PDF, 5.27 MB

Ref. No: FACL/BDK/ SPCB/851/2023-24
Date: 29.09.2023

To,

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

**Sub: Submission of Environmental Statement for the year 2022-23 by M/s Ferro
Alloys Corporation Limited (Power Plant), Randia, Bhadrak.**

Sir,

With reference to the above cited subject, please find enclosed copy of Environmental Statement for the financial year ending 31st March, 2023 in **Form-V** by M/s Ferro Alloys Corporation Limited (Power Plant) for your kind perusal.

Thanking you,

Yours faithfully,
For **Ferro Alloys Corporation Limited**



**Girish Chandra Mohanty
Factory Manager-PP**

Encl: As above

Copy to: The Regional Officer, SPCB, Balasore.

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

Registered Office:

D.P.Nagar, PO : Randia, Dist.: Bhadrak, Odisha, India - 756 135

T +91-6784 240320/240347, Email: facor.mines@vedanta.co.in / facor.ccp@vedanta.co.in

Website: www.facorgroup.in, CIN: U45201OR1955PLC008400.

Sensitivity: Internal (CI)

**ENVIRONMENTAL STATEMENT
REPORT**

**FOR THE FINANCIAL YEAR
2022-23**

IN RESPECT OF

FERRO ALLOYS CORPORATION LIMITED (POWER PLANT)

Randia, Bhadrak, Odisha.

FORM – V
(See Rule – 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2022-23

PART - A

01. Name and address of the : **M/s. Ferro Alloys Corporation Limited**
owner/occupier of the industry : **(Power Plant)**
operation At:D.P.Nagar, Po:Randia,
District – Bhadrak-756135, Odisha.
02. Industry Category : Red category
:
Primary (STC Code)
Secondary (SIC code)
03. Production Capacity : Captive Power Plant - 100 MW
04. Year of Establishment : July'2011
05. Date of last Environmental : 30.09.2022
Statement submitted

PART - B

WATER CONSUMPTION & RAW MATERIAL CONSUMPTION

1. <u>Water Consumption</u>	<u>M³/day (Max.)</u>
Process	63
Industrial Cooling	2263
Domestic (Potable)	114

2. Process Water Consumption

Name of the Products	Generation		Process water consumption / unit of Output	
	21-22	22-23	21-22	22-23
Power	290377 MWH	290365 MWH	2.71 m ³ /MW	3.31 m ³ /MW

3. Raw Material Consumption

Name of raw materials	Name of the product	Consumption of raw materials / unit of product output	
		21-22	22-23
Coal	Power	1.00T/MW	0.99 T/MW
LDO	Power	4 to 5 KL in every startup	4 to 5 KL in every startup

PART - C

Pollution discharged to environment / unit of output (Parameters as specified in the consent issued)

A : WATER

Month of April 2022 to March 2023(average)

Sl. No.	Parameters	Quantity of Pollutants Discharged (load)
		Service Water Sample Water
01.	Color (Hazen)	<1.0
02.	Odour	Agreeable
03.	pH	7.78
04.	Temperature (°C)	29.9

05.	Total Suspended Solids (TSS)	36.1
06.	Oil & Grease	2.23
07.	Total Residual Chlorine	0.24
08.	Free Ammonia (NH ₃)	<0.5
09.	Chemical Oxygen Demand (COD)	13.26
10.	Arsenic (As)	<0.004
11.	BOD of 27 °C	3.74
12.	Hexavalent Chromium (Cr+6)	<0.05
13.	Total Chromium (Cr)	<0.1
14.	Copper (Cu)	<0.02
15.	Zinc (Zn)	0.41
16.	Selenium (Se)	<0.001
17.	Nickel (Ni)	<0.1
18.	Cyanide (CN)	<0.02
19.	Fluoride as F	0.66
20.	Dissolved Phosphates (P)	4.25
21.	Sulphide (S)	ND
22.	Iron (Fe)	1.47
23.	Nitrate Nitrogen	6.85
24.	Phenolic compounds (C ₆ H ₅ OH)	<0.001
25.	Sulphate as (SO ₄)	8.02
26.	Manganese (Mn)	0.026
27.	Total Coliform (MPN/100ml)	278.3
28.	Vanadium as V	<0.02
29.	Cadmium (Cd)	<0.03
30.	Lead (Pb)	<0.2
31.	Mercury (Hg)	<0.004

B. AIR

April 2022 to March 2023(average)

Sl.No.	Location	Pollutant concentration			
		PM (mg/Nm ³)		SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)
01.	ESP outlet of CFBC Boiler	31.1		78.13	91.15
		CO ₂ (%)		CO (%)	Hg (%)
		6.6		<0.1	0.014
02.	Ambient Air	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)
		39.3	68.3	10.8	18.5

PART – D

HAZARDOUS WASTE

(As specified under hazardous waste management and handling rules, 1989)

Hazardous Waste	Total Quantity	
	21-22	22-23
Used Oil	0.40 KL	1.36 KL
Waste containing Oil	0.16 T	0T
Spent Resin	1.60 KL	0 KL

PART- E

SOLID WASTE

Source	Total Quantity (MT)	
	21-22	22-23
Fly ash from Silos	114165	47306
Bottom ash from Boiler	18599	6493

PART - F

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

Solid Waste	Total Quantity (22-23)	Characteristics of fly ash	Remarks
Fly ash & Bottom Ash	53800 MT	SiO ₂ – 65% Al ₂ O ₃ – 22% Fe ₂ O ₃ – 6% CaO – 2.66% MgO – 2.03% TiO ₂ – 0.81% P – 0.023% S – 0.48%	We have provided 800M ³ volume of 3 nos of ash silo for CFBC Boiler and we have pneumatic ash handling system to control fugitive emission. Then ash is unloaded from silo into trucks and utilized for Fly ash brick manufacturing plants and low lying area land filling etc. We are constantly achieving 100% utilization of fly ash & bottom ash.

PART-G

Impact of the pollution abatement measures taken for the conservation of natural resources and on the cost of production.

1. Power plant has taken adequate pollution control measures at source level, so that the operation of the plant does not have any adverse impact on natural resources and environment.
2. High efficiency electro-static precipitators have been installed in CFBC boiler to reduce particulate emission from these units.
3. We have installed 10KLD STP for sewage water treatment and recycling the water for gardening purpose.
4. Similarly, 1000KLD Surface Runoff Treatment Plant has been installed to treat all runoff water inside the plant to achieve Zero Liquid Discharge.
5. Power plant has installed Wheel washing system to clean the wheel of vehicles to maintain the road clean.
6. Green belt has been developed inside the plant premises to reduce spread of noise and dust pollution.
7. All internal roads have been concreted to reduce the fugitive dust emission inside the plant premises.
8. Power plant has provided fixed and flexible water sprinkling system at various dusts generating area such as raw material carrying conveyer, coal circuit, rotary breaker etc. and also 1 no of mobile water tanker (capacity of 5KL) has been engaged for sprinkling of water at raw material yard, ash disposal site and inside & outside road of the factory.
9. Housekeeping has been taken on top priority and engaged 12 nos. of manpower on daily basis for maintaining neat & clean environment in the plant premises.

PART- H

Additional measures / investment proposal for environmental protection Including abatement of pollution

Expenditure for Environmental Protection FY 2022-23

i)	Installation of Online Continuous Effluent Monitoring Station with RTDAS system	:	10,07,720/-
ii)	Installation of Digital Flow meter in intake well	:	12,00,000/-
iii)	Installation of Temperature, Velocity, Flow measurement in CEMS	:	8,50,000/-
iv)	Installation of SOx & NOx Analyzers for CEMS	:	20,10,000/-
v)	ETP revamp	:	9676000/-
vi)	Energy consumption for Pollution control devices	:	12,22,523/-
viii)	Expenditure for Dust suppression system	:	6,58,350/-
ix)	Engagement of Labor for housekeeping & Plantation maintenance work	:	23,06,880/-
x)	Engagement of Water Tanker for dust suppression	:	216000/-

Investment Proposal for Environmental Protection FY 2023-24

- Installation of SOx & NOx analyzers in CAAQMS– Rs.15,000,000/-
- Supply and installation of IOT flowmeter in intake well- Rs. 28305/-

PART – I

Any other particulars for improving the quality of the environment

Power plant has taken various initiatives for abatement of pollution control and environment protection measures. We have installed 10KLD STP for sewage water treatment and recycling the water for gardening purpose. Similarly, 1000KLD Surface Runoff Treatment Plant has installed to treat all runoff water inside the plant to achieve Zero Liquid Discharge. Unit has constantly achieving 100% ash utilization since April-2013 as a result we are utilizing the waste material as a resource for flyash bricks plant. We are continuously developing greenbelt wherever the open space is available to improve the plant beautification as well as prevention and control of pollution.

