Ref: FACL/BDK/MOEF/157/2024-25
Dtd: 30.11.2024

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 April 2024 to September-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 April 2024 to September 2024.

The monthly Environmental Monitoring data and other required information with respect to compliance of the said Six-Monthly compliance for the period from April 2024 to September 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 April 2024 up to September 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 the above parameters are being carried out on a 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.
vi	High efficiency electrostatic precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm3.	ESP installed to maintain SPM emission below 50mg/ Nm3. 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 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 drawl 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, SO2 and NOx 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 SOx, NOx & 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 April 2024 to Sept 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**
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/	Pneumatic conveying system has been provided for dry ash disposal along with silos. Almost 100% ash utilization is being achieved. 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**

	bottom ash, leachates and effluents emanating from the ash pond.	
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 (SRTP).
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**
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%.	A separate storage facility has been provided for HSD. Onsite and off-site disaster Management Plans are available. Mock drills are 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 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 arears 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 has been provided for turbines to restrict the noise level below 75dBA. Site workers are provided with ear plugs. Periodical health check-ups are being carried out and no such abnormality of hearing loss has been found yet. Noise reports are enclosed herewith as **Annexure-8.**

xxv	Regular monitoring of ground level concentration of SO2, NOx, RSPM (PM10 & PM2.5) 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 (SOx, NOx, PM10 & PM2.5) 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 waste is 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	An environment Cell consisting of expert in environmental science / engineering has been created and being followed accordingly.

	the organisation and he shall be held responsible for implementation of environmental regulations and social impact improvement/ mitigation measures.	
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.	Separate budget has been allocated for implementation of environment protection measures and the same is being utilized for the said purposes. Year wise expenditure is being reported in Environmental Statement (Form V).
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 area available with the State Pollution Controal 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.

Annexure 1

KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories
PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA
+91 9861463904 M: kalyanilab@yahoo.co.in

TEST REPORT

Test Report No	:	**KLPL/4/24/ENVN/00136**	*Issue Date*	: 26-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	:	15-Apr-2024 Commenced On : 15-Apr-2024	*Completion On:*	16-Apr-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-13.04.2024***			
Particulate Matter	mg/Nm³	--	**45.32**	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	--	**<0.001**	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO2)	%	--	**9.5**	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm³	--	**121.15**	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	**476**	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	--	**273151**	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm³	--	**0.014**	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO2	mg/Nm³	--	**172.25**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised Signatory
Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories

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

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TEST REPORT

Test Report No	: **KLPL/4/24/ENVN/00136A**	*Issue Date*	: 26-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	: 15-Apr-2024 Commenced On : 15-Apr-2024	*Completion On:*	16-Apr-2024
Sample Name	: **DG 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 : ***1000 KV DG STACK , DATE-13.04.2024***				
Particulate Matter	mg/Nm³	--	**17.45**	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	--	**<0.001**	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO2)	%	--	**135**	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm³	--	**135.1**	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	**338**	IS 11255(Part-1):1985,RA:2019
Velocity	m/sec	--	**7.9**	IS 11255(Part-1):1985,RA:2019
Quantity of Gas Flow	Nm3 / hr	--	**894.33**	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm³	--	**0.001**	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO2	mg/Nm³	--	**18.52**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KALYANI LABORATORIES PVT.LTD.

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TEST REPORT

Test Report No	:	**KLPL/5/24/ENVN/00156**	*Issue Date*	: 04-Jun-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	:	27-May-2024 Commenced On : 27-May-2024	*Completion On:*	28-May-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-25.05.2024*				
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)	%	--	**8.5**	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm³	--	**118.15**	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	**465**	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	--	**274151**	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm³	--	**0.012**	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO2	mg/Nm³	--	**175.15**	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. BBSR

KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories
PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA
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TEST REPORT

Test Report No	:	**KLPL/6/24/ENVN/00200**	*Issue Date*	: 29-Jun-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-Jun-2024 Commenced On : 28-Jun-2024	*Completion On:*	29-Jun-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-27.06.2024***			
Particulate Matter	mg/Nm³	**50**	**41.41**	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	--	**<0.001**	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO2)	%	--	**8.2**	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm³	**450**	**122.35**	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	**474**	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	--	**271354**	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm³	**0.03**	**0.011**	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO2	mg/Nm³	**600**	**174.25**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised Signatory
Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories
PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA
+91 9861463904 M: kalyanilab@yahoo.co.in

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TEST REPORT

Test Report No	:	**KLPL/7/24/ENVN/00198**	*Issue Date*	: 05-Aug-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-Jul-2024 Commenced On : 29-Jul-2024	*Completion On:*	05-Aug-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-27.07.2024***			
Particulate Matter	mg/Nm³	--	**38.32**	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	--	**<0.001**	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO2)	%	--	**7.9**	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm³	--	**112.32**	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	**444**	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	--	**232415**	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm³	--	**0.011**	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO2	mg/Nm³	--	**154.43**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised Signatory
Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KLPL-10017890B

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TEST REPORT

Test Report No	:	**KLPL/8/24/ENVN/00240**	*Issue Date*	: 03-Sep-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-Aug-2024 Commenced On : 24-Aug-2024	*Completion On:*	02-Sep-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-24.08.2024***			
Particulate Matter	mg/Nm³	**50**	**43.32**	IS 11255(Part-1):1985,RA:2019
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	--	**<0.001**	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO2)	%	--	**6.9**	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm³	**450**	**108.32**	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	**414**	IS 11255(Part-1):1985,RA:2019
Velocity	m/sec	--	**9.5**	IS 11255(Part-1):1985,RA:2019
Quantity of Gas Flow	Nm3 / hr	--	**236415**	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm³	**0.03**	**0.010**	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO2	mg/Nm³	**600**	**144.43**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised Signatory

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KALYANI LABORATORIES PVT.LTD.

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TEST REPORT

Test Report No	:	**KLPL/9/24/ENVN/00291**	*Issue Date*	: 27-Sep-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	:	19-Sep-2024 Commenced On : 19-Sep-2024	*Completion On:*	27-Sep-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-18.09.2024***			
Particulate Matter	mg/Nm³	**50**	**40.18**	IS 11255(Part-1):1985,RA:2019
rbon Monoxide (CO) (01 Hrs.)	mg/m³	--	**<0.001**	KLPL/SOP/AIR-20:2019
Carbon Dioxide (CO2)	%	--	**6.5**	KLPL/SOP/AIR-20:2019
Oxides of Nitrogen	mg/Nm³	**450**	**122.42**	KLPL/SOP/AIR-20:2019
Stack Temperature	Deg kelvin	--	**446**	IS 11255(Part-1):1985,RA:2019
Velocity	m/sec	--	**9.0**	IS 11255(Part-1):1985,RA:2019
Quantity of Gas Flow	Nm3 / hr	--	**236795**	IS 11255(Part-1):1985,RA:2019
Mercury (as Hg)	mg/Nm³	**0.03**	**0.010**	KLPL/SOP/STACK-HM-21: 2023
Sulphur Dioxide as SO2	mg/Nm³	**600**	**156.32**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

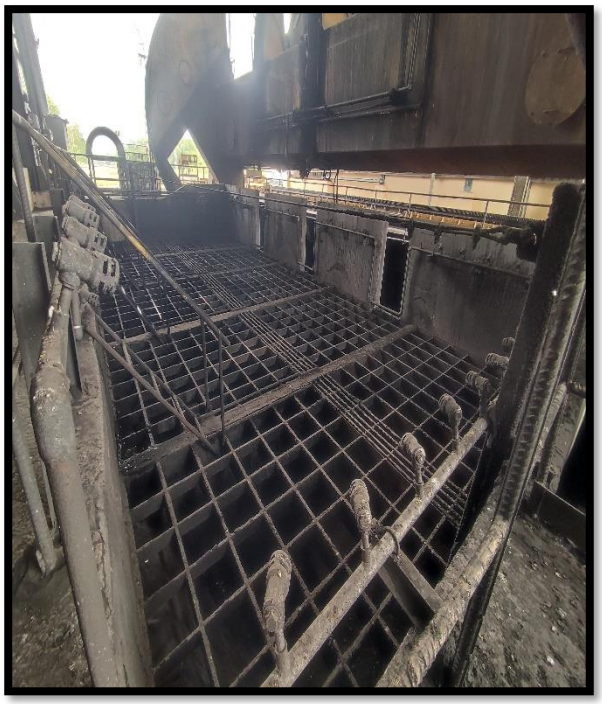
Authorised Signatory
Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

Dust Suppression Systems

Dedusting Units in Coal Handling Plant

Water Sprinklers in Coal Stock Area



Water Sprinklers in Wagon Tippler

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TEST REPORT

Annexure 3

Test Report No	:	**KLPL/4/24/WATER/00681**
Issue Date	:	26-Apr-2024
Amendment No	:	--
Amendment Date	:	--
Reference	:	PO NUMBER :4920059098,PO DATE :17.12.2022
Customer Name	:	**POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.**
Address	:	D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA
Date of receipt	:	15-Apr-2024 Commenced On : 15-Apr-2024 *Completion On:* 20-Apr-2024
Sample Description	:	**DRINKING WATER (IS 10500:2012)**
Form|Shape|Appearance	:	SEALED PET BOTTLE
Sample Identification	:	**GROUND WATER**
Batch No , Lot No	:	NOT APPLICABLE *MFG Date :* NOT APPLICABLE *EXP Date:* NOT APPLICABLE
Received Quantity	:	4 LITRE *Sample Collection Location, & Date :*
Sample Collected By	:	MR. SUDHIR KUMAR BARIK NEAR ASH POND BOREWELL -13.04.2024
Sampling Procedure if Any	:	KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
i	Bromoform	mg/l , max	0.1	**<0.1**	IS : 10500 : 2012	APHA 6232
ii	Dibromochloromethane	mg/l, Max	0.1	**<0.1**	IS : 10500 : 2012	APHA 24th Edition-2023 (6232)
iii	Chloroform	mg/l, Max	0.2	**<0.2**	IS : 10500 : 2012	APHA 24th Edition 6232
iv	Bromodichloromethane	mg/l, Max	0.06	**<0.06**	IS : 10500 : 2012	APHA 24th Edition 6232
BATERIOLOGICAL QUALITY						
i	Total Coliforms	MPN/100 ml	Shall not be detected in any 100ml sample	**<2**	IS : 10500 :2012	IS 1622:1981 RA 2009
ii	E.coli	MPN/100ml	Shall not be detected in any 100ml sample	**<2**	IS : 10500 : 2012	IS 1622:1981, RA 2009
CHEMICAL PARAMETER						
i	Nitrate as NO3	mg/l, Max	45	**0.5**	IS : 10500 :2012	Cl.3.0 of IS 3025 (PART 34): 1988, RA 2019
ii	Ammonia	mg/l, Max	0.5	**<0.03**	IS : 10500 : 2012	IS:3025(Part-34) : 2012
iii	Calcium (as Ca)	mg/l, Max	75	51.2	IS : 10500 :2012	Cl.5.0 of IS 3025 (Part 40):1991, RA 2019
iv	Chloride (as Cl)	mg/l, Max	250	**38**	IS : 10500 :2012	IS 3025 (Part 32):1988, RA 2019
v	Copper (as Cu)	mg/l, Max	0.05	**<0.02**	IS : 10500 :2012	Cl.6.0 of IS 3025 (Part 42):1992, RA 2019
vi	Fluoride (as F)	mg/l, Max	1	**0.4**	IS : 10500 :2012	Cl.5.0 of IS 3025 (Part 60):2008, RA 2019

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Test Report No : KLPL/4/24/WATER/00681

vii	Free residual chlorine	mg/l, Min	0.2	**<0.05**	IS : 10500 :2012	Cl.3.0 of IS 3025 (Part 26):2021
viii	Iron (as Fe)	mg/l, Max	1	**<0.05**	IS : 10500 :2012	Cl.6.0 of IS 3025 (Part 53):2003, RA 2019
ix	Magnesium (as Mg)	mg/l, Max	30	**9.72**	IS : 10500 :2012	Cl.6.0 of IS 3025 (Part 46):1994, RA 2019
x	Manganese (as Mn)	mg/l, Max	0.1	**<0.05**	IS : 10500 :2012	Cl.5.0 of IS 3025 (Part 59):2006, RA 2017
xi	Mineral oil	mg/l, Max	0.5	**<0.5**	IS : 10500 :2012	Cl.5.0 of IS 3025 (Part- 39):2021
xii	Phenolic compounds (as C6H5OH)	mg/l, Max	0.001	**<0.001**	IS : 10500 :2012	Cl.5.0 of IS 3025 (Part 43):1992, RA 2019
xiii	Selenium (as Se)	mg/l, Max	0.01	**<0.005**	IS : 10500 :2012	Cl.7.0 of IS 3025 (Part 56):2003, RA 2019
xiv	Sulphate (as SO4)	mg/l, Max	200	**24**	IS : 10500 :2012	Cl.4.0 of IS 3025 (Part 24):1986, RA 2019
xv	Total alkalinity (as CaCO3),	mg/l, Max	200	**164**	IS : 10500 :2012	IS 3025 (Part 23):1986, RA 2019
xvi	Total hardness (as CaCO3),	mg/l, Max	200	**168**	IS : 10500 :2012	IS 3025 (Part 21):2009, RA 2019
xvii	Zinc (as Zn)	mg/l, Max	5	**<0.05**	IS : 10500 :2012	Cl.6.0 of IS 3025 (Part 49):1994, RA 2019
xviii	Total Chromium	mg/l, Max	0.05	**<0.01**	IS : 10500 :2012	APHA 24th Edition(3111 C): 2023
xix	Sulphide	mg/l, Max	0.05	**<0.01**	IS : 10500 : 2012	Cl.3.0 of IS 3025 (Part 29):1986 RA 2019
xx	Aluminium (as Al)	mg/l,Max	0.03	**<0.02**	IS :10500:2012	Cl.5.0 of IS 3025 (part-55):2003, RA 2019
xxi	Anionic Surface Active Agents (as MBAS)	mg/l, Max	0.2	**<0.05**	IS : 10500 :2012	Annex - K OF IS 13428:2005
xxii	Boron (as B)	mg/l, Max	0.5	**<0.1**	IS : 10500 :2012	IS 3025 (Part-57):2021
xxiii	Polynuclear Aromatic Hydrocarbon	mg/l, Max	0.0001	**<0.00005**	IS : 10500 :2012	APHA 24th Edition (6440-B):2023
xxiv	Barium (as Ba)	mg/l, Max	0.7	**<0.2**	IS : 10500 : 2012	Annex F of IS 13428:2005
xxv	Silver (as Ag)	mg/l, Max	0.1	**<0.005**	IS : 10500 : 2012	Annex J of IS 13428 : 2005 RA 2009
xxvi	Molybdenum (as Mo)	mg/l, Max	0.07	**<0.01**	IS : 10500 : 2012	IS 3025 (Part 2): 2002
xxvi	Chloramines (Cl2)	mg/l, Max	4.0	**<1.0**	IS : 10500 : 2012	IS 3025 (Part 26):2009

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Test Report No : KLPL/4/24/WATER/00681

xxvi	Polyclorinated biphenyls	mg/l, Max	0.0005	**<0.00005**	IS : 10500 : 2012	Annex M of IS 13428 : 2005
PESTISIDE						
i	p p DDE	µg/l, Max	1	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
ii	p p DDD	µg/l, Max	1	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
iii	p p DDT	µg/l, Max	1	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
iv	o p DDT	µg/l, Max	1	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
	o p DDD	µg/l, Max	1	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
vi	a-HCH	µg/l, Max	0.01	**<0.01**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
vii	ß -HCH	µg/l, Max	0.04	**<0.04**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
viii	§-HCH	µg/l, Max	0.04	**<0.04**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
ix	Lindane	µg/l, Max	2	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
x	Endosulfan a	µg/l, Max	0.4	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
xi	Endosulfan sulphate	µg/l, Max	0.4	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
xii	Monocrotophos	µg/l, Max	1	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
xiii	Chlorpyrifos	µg/l, Max	30	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
xiv	Phorate	µg/l, Max	2	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
xv	Isoproturon	µg/l, Max	9	**<0.05**	IS : 10500 : 2012	USEPA 8321,Rev 01,Dec:1996
xvi	Methyl Parathion	µg/l, Max	0.3	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
xvii	Malathion	µg/l, Max	190	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
xviii	Polychlorinated biphenyls	µg/l, Max	0.0005	**<0.00005**	IS : 10500 : 2012	Annex M of IS 13428 : 2005
xix	Endosulfan ß	µg/l, Max	0.4	**<0.05**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
xx	2,4-D	µg/l, Max	30	**<0.05**	IS : 10500 : 2012	USEPA 515.1,Rev 01:1995

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Test Report No : KLPL/4/24/WATER/00681

xxi	Butachlor	µg/l, Max	125	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
xxii	Alachlor	µg/l, Max	20	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
xxiii	Atrazine	µg/l, Max	2	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
xxiv	Dieldrin	µg/l, Max	0.03	**<0.03**	IS : 10500 : 2012	USEPA 508,Rev 01:1994
xxv	Ethion(Residue to be Determined as ethion and its oxygen analogue and expressed as ethion)	µg/l, Max	3	**<0.05**	IS : 10500 : 2012	USEPA 8141 A,Rev 01:1994
PHYSICAL PARAMETER						
	Colour	Hazen, Max	5	**<1.0**	IS : 10500 :2012	Cl.2.0 of IS 3025 (Part 4): 2021
ii	Odour	--	Agreeable	**AGREEABLE**	IS : 10500 :2012	IS 3025 (Part 5):1983,RA:2012
iii	pH value	--	6.5-8.5	**7.3**	IS : 10500 : 2012	IS 3025 (Part-11):1983,RA:2012
iv	Taste	--	Agreeable	**AGREEABLE**	IS : 10500 :2012	IS 3025 (Part 8):1984, RA 2017
v	Turbidity	NTU, Max	1	**0.8**	IS : 10500 :2012	IS 3025 (Part 10):1984, RA 2017
vi	Total dissolved solids	mg/l, Max	500	**300**	IS : 10500 :2012	IS 3025 (Part 16):1984, RA 2017
TOXIC SUBSTANCES						
i	Cadmium (as Cd)	mg/l, Max	0.003	**<0.001**	IS : 10500 :2012	Cl.5.0 of IS 3025 (Part 41):1992, RA 2019
	Cyanide (as CN)	mg/l, Max	0.05	**<0.02**	IS : 10500 :2012	IS 3025 (Part 27):1986, RA 2019
iii	Lead (as Pb)	mg/l, Max	0.01	**<0.005**	IS : 10500 :2012	Cl.7.0 of IS 3025 (Part 47):1994, RA 2019
iv	Mercury (as Hg)	mg/l, Max	0.001	**<0.0005**	IS : 10500 :2012	Cl.5.0 of IS 3025 (Part 48):1994, RA 2019
v	Total arsenic (as As)	mg/l, Max	0.01	**<0.001**	IS : 10500 :2012	IS 3025 (Part 37):1988, RA 2019
vi	Nickel (as Ni)	mg/l, Max	0.02	**<0.01**	IS : 10500 : 2012	Cl 7.0 of IS 3025 (Part 54):2005

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Test Report No : **KLPL/4/24/WATER/00681**

Opinion & Interpretation: --

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

Analysed By

Digambar Arukha
For Kalyani Laboratories Pvt. Ltd.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised By

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories

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TEST REPORT

Annexure 4

Test Report No	:	**KLPL/4/24/WATER/00681D**
Issue Date	:	26-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	:	15-Apr-2024 Commenced On : 15-Apr-2024 *Completion On:* 20-Apr-2024
Sample Description	:	**STP OUTLET WATER**
Form|Shape|Appearance	:	SEALED PET BOTTLE
Sample Identification	:	**STP OUTLET WATER**
Batch No , Lot No	:	NOT APPLICABLE *MFG Date :* NOT APPLICABLE *EXP Date:* NOT APPLICABLE
Received Quantity	:	1 LITRE *Sample Collection Location, & Date* :
Sample Collected By	:	MR. SUDHIR KUMAR BARIK PLANT STP OUTLET, DATE-13.04.2024
Sampling Procedure if Any	:	KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
i	Feacal Coilform	MPN/100ml	<1000	**130**	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	**90**	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	**6.0**	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	**7.0**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised By

Dr. Rekha Nayak
For Kalyani Laboratories Pvt. Ltd.

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

KALYANI LABORATORIES PVT.LTD.

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TEST REPORT

Test Report No	:	**KLPL/5/24/WATER/00928**
Issue Date	:	04-Jun-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	:	27-May-2024 Commenced On : 27-May-2024 *Completion On:* 31-May-2024
Sample Description	:	**STP OUTLET WATER**
Form|Shape|Appearance	:	SEALED PET BOTTLE
Sample Identification	:	**STP OUTLET WATER**
Batch No , Lot No	:	NOT APPLICABLE *MFG Date :* NOT APPLICABLE *EXP Date:* NOT APPLICABLE
Received Quantity	:	1 LITRE *Sample Collection Location, & Date* :
Sample Collected By	:	MR. SUDHIR KUMAR BARIK PLANT STP OUTLET, DATE-25.05.2024
Sampling Procedure if Any	:	KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
i	Feacal Coilform	MPN/100ml	<1000	**140**	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	50	**32**	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	**7.0**	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	**7.1**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised By

Dr. Rekha Nayak 5/6/2024
For Kalyani Laboratories Pvt. Ltd.

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

Annexure 1

KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories
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TEST REPORT

Test Report No	:	**KLPL/4/24/WATER/01150**
Issue Date	:	02-Jul-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-Jun-2024 Commenced On : 28-Jun-2024 *Completion On:* 02-Jul-2024
Sample Description	:	**STP OUTLET WATER**
Form|Shape|Appearance	:	SEALED PET BOTTLE
Sample Identification	:	**STP OUTLET WATER**
Batch No , Lot No	:	NOT APPLICABLE *MFG Date :* NOT APPLICABLE *EXP Date:* NOT APPLICABLE
Received Quantity	:	1 LITRE *Sample Collection Location, & Date :*
Sample Collected By	:	MR. SUDHIR KUMAR BARIK PLANT STP OUTLET, DATE-27.06.2024
Sampling Procedure if Any	:	KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
i	Feacal Coilform	MPN/100ml	<1000	**140**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	1622:1981, RA 2009
CHEMICAL PARAMETER						
ii	Total Suspended Solids.	mg/l, Max	100	**32**	As per CTO	APHA 24th Edition (2540 D):2023
i	Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	20	**7.0**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	APHA 24th Edition (5210 B):2023
PHYSICAL PARAMETER						
i	pH value	--	6.5-9.0	**7.1**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised By

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KLPL-10017502B

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TEST REPORT

Test Report No	:	**KLPL/7/24/WATER/01306**
Issue Date	:	05-Aug-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-Jul-2024 Commenced On : 29-Jul-2024 *Completion On:* 05-Aug-2024
Sample Description	:	**STP OUTLET WATER**
Form|Shape|Appearance	:	SEALED PET BOTTLE
Sample Identification	:	**STP OUTLET WATER**
Batch No , Lot No	:	NOT APPLICABLE *MFG Date :* NOT APPLICABLE *EXP Date:* NOT APPLICABLE
Received Quantity	:	1 LITRE *Sample Collection Location, & Date :*
Sample Collected By	:	MR. SUDHIR KUMAR BARIK PLANT STP OUTLET, DATE-27.07.2024
Sampling Procedure if Any	:	KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
i	Feacal Coilform	MPN/100ml	<1000	**170**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	1622:1981, RA 2009
CHEMICAL PARAMETER						
ii	Total Suspended Solids.	mg/l, Max	100	**33.2**	As per CTO	APHA 24th Edition (2540 D):2023
i	Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	20	**7.5**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	APHA 24th Edition (5210 B):2023
PHYSICAL PARAMETER						
i	pH value	--	6.5-9.0	**7.2**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised By

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

KLPL-10017897B

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TEST REPORT

Test Report No	:	**KLPL/8/24/WATER/01450**
Issue Date	:	03-Sep-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-Aug-2024 Commenced On : 24-Aug-2024 *Completion On:* 02-Sep-2024
Sample Description	:	**STP OUTLET WATER**
Form|Shape|Appearance	:	SEALED PET BOTTLE
Sample Identification	:	**STP OUTLET WATER**
Batch No , Lot No	:	NOT APPLICABLE *MFG Date :* NOT APPLICABLE *EXP Date:* NOT APPLICABLE
Received Quantity	:	1 LITRE *Sample Collection Location, & Date :*
Sample Collected By	:	MR. SUDHIR KUMAR BARIK PLANT STP OUTLET, DATE-24.08.2024
Sampling Procedure if Any	:	KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
i	Feacal Coilform	MPN/100ml	<1000	**140**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	1622:1981, RA 2009
CHEMICAL PARAMETER						
ii	Total Suspended Solids.	mg/l, Max	<100	**34.4**	As per CTO	APHA 24th Edition (2540 D):2023
i	Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	30	**8.0**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	APHA 24th Edition (5210 B):2023
PHYSICAL PARAMETER						
i	pH value	--	6.5-9.0	**7.3**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	APHA 24th Edition (4500-H+-B): 2023

pinion & 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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised By

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

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

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TEST REPORT

Test Report No	:	**KLPL/9/24/WATER/01602**
Issue Date	:	27-Sep-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	:	19-Sep-2024 Commenced On : 19-Sep-2024 *Completion On:* 27-Sep-2024
Sample Description	:	**STP OUTLET WATER**
Form|Shape|Appearance	:	SEALED PET BOTTLE
Sample Identification	:	**STP OUTLET WATER**
Batch No , Lot No	:	NOT APPLICABLE *MFG Date :* NOT APPLICABLE *EXP Date:* NOT APPLICABLE
Received Quantity	:	1 LITRE *Sample Collection Location, & Date :*
Sample Collected By	:	MR. SUDHIR KUMAR BARIK PLANT STP OUTLET, DATE-18.09.2024
Sampling Procedure if Any	:	KLPL/QSP-07

Sl	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
i	Feacal Coilform	MPN/100ml	<1000	**110**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	1622:1981, RA 2009
CHEMICAL PARAMETER						
ii	Total Suspended Solids.	mg/l, Max	<100	**35.2**	As per CTO	APHA 24th Edition (2540 D):2023
i	Biochemical Oxygen Demand(For 3 days 27deg C)	mg/l, Max	30	**9.0**	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	APHA 24th Edition (5210 B):2023
PHYSICAL PARAMETER						
i	pH value	--	6.5-9.0	**7.2**	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.

Kalyani Laboratories Pvt. Ltd. BBSR

Authorised By

Dr. Debasis Biswal
For Kalyani Laboratories Pvt. Ltd.

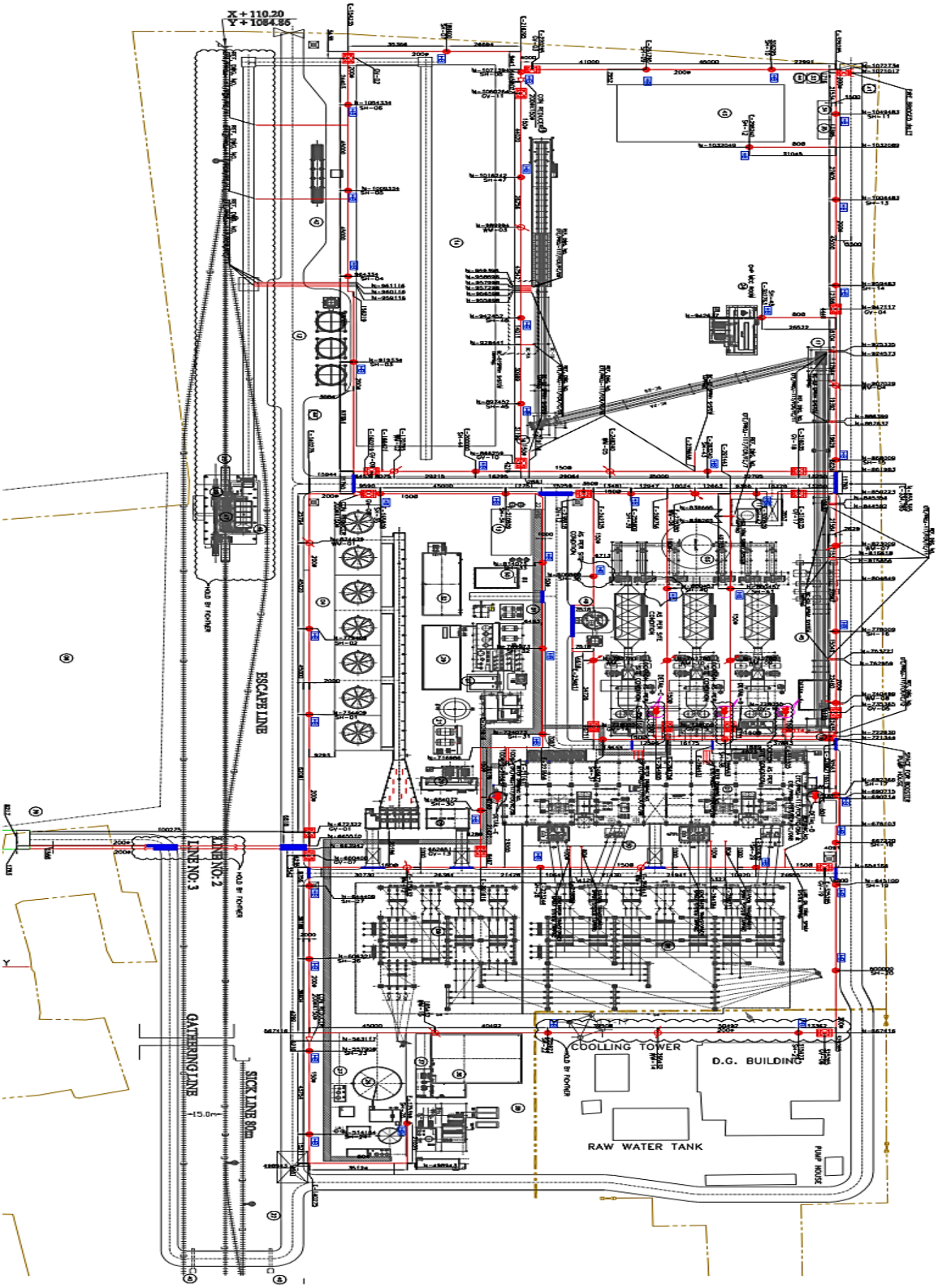
********** End of Test Report **********

KLPL-10019780B

Rooftop Rainwater Harvesting Structures.

Annexure 6

Fire Hydrant Line Superimposed with Factory Layout



LIST OF EQUIPMENT		
ITEM No.	DESCRIPTION	Qty.
1	STG BUILDING – GROUND FLOOR–0.000M MEZZANINE FLOOR–5.000M OPERATING FLOOR–10.500M	1 1 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	FACOR

DOC. NO. FACOR-IMS-FSF-08			
Issue No.: 01	**Issue date: 01.11.2021**	**Revision date : 01.05.2024**	**Revision No. : 01**

MOCK DRILL ON CHEMICAL LEAKAGE

A

Date	26.09.2024	**Location**	DM Plant, FPL
Drill Start Time	11:00 am	**Drill End Time**	11:45 am
Total time of the Drill	45 min		

Emergency Scenario:

During the ongoing construction of the dyke wall near the HCL tank, civil work was being performed when a minor chemical leakage occurred from the tank. The workers, however, did not recognize the potential hazard, as the leak was small and initially went unnoticed. a slight chemical vapor was released into the surrounding environment, causing mild irritation among workers in the vicinity.

At around 11:15 am, Mr. Rajesh Kumar, a senior worker in the area, started to feel dizzy. He immediately informed his supervisor, Mr. Babula Mohanty. He, immediately took action to alert the Shift In-Charge.

Mr. Babula Mohanty ordered the evacuation of the area and instructed the workers to move to the nearest assembly point. The Shift In charge quickly arrived on-site, assessed the situation, and confirmed the need for an emergency response. The Shift In-Charge immediately informed the Emergency Control Room, Combat Team & Safety Officer.

The Combat Team & safety officer upon receiving the alert, arrived at the site within minutes. They immediately isolated the area and shut off the tank's valve to stop the leakage.

The Rescue Team, along with the Ambulance service, was alerted. They arrived at the site, took over the responsibility of transporting the affected workers to the dispensary, where they were given further medical treatment. Meanwhile, the SIC conducted a debriefing with all the workers at the assembly point to discuss the incident, review the response, and outline improvements for future safety measures.

Action By WMC: (Mr. Tarun Panda)

1. Upon receiving the emergency alert, informed the Emergency Control Room.
2. Coordinated with the CTL and Safety Officer to assess the magnitude of the situation
3. Declared that an emergency siren was not needed.

Action By SIC: (Mr. Aditya Sahu)

1. Informed the WMC and proceeded to the site.

2. Informed the Rescue Team Leader (RTL) and Combat Team Leader (CTL).
3. Guided the Combat Team to mitigate the emergency situation and assist with evacuation.

Action By Combat Team:
1. Arrived quickly at the site and assessed the situation.
2. Alerted the Site In-Charge and Emergency Control Room.
3. Isolated the chemical leak by turning off the valve and securing the area.
4. Coordinated with the ambulance for evacuation and medical assistance.
5. Evacuated workers from the hazardous zone and conducted a headcount to ensure no one was left behind.

Action By Rescue Team :
1. Assisted the Combat Team in barricading the area and ensuring that no unauthorized personnel entered the hazardous zone.

Action By Auxiliary Team:
NIL

Action By Doctor:
1. Assess the patient's condition.
2. Checked for signs of chemical exposure
3. Monitored the worker's vital signs and ensured no further medical complications.
4. Communication with the SIC that casualty is stable.

Observation / Sequence of events with details:

Sno.	Event / Drill Sequence	Information Time	Standard Time	Reporting Time
1	Civil work ongoing on dyke wall construction near 16KL Horizontal HCL tank.	11:00 AM	_____	_____
2	Minor leakage from the valve detected, but workers did not recognize the severity.	11:05 AM	_____	_____
3	Worker Mr. Rajesh begins experiencing dizziness and respiratory distress.	11:08 AM	_____	_____
4	Worker Mr. Babula Mohanty notices chemical vapor aand informed the team.	11:09 AM	_____	_____

5	Site In-Charge notified, and emergency alarm is raised.	11:10 AM	_____	_____
6	WMC informed and evacuation procedures initiated.	11:12 AM	_____	_____
7	Combat Team arrives at the site.	11:15 AM	5 min	11:17 AM
8	Chemical leak isolated, and workers evacuated from the zone.	11:18 AM	_____	_____
9	Mr. Rajesh shifted to safe place.	11:20 AM	_____	_____
10	Ambulance arrives at the site.	11:23 AM	5 min	11:25 AM
11	Mr. Rajesh transferred to the ambulance and taken to the dispensary.	11:30 AM	_____	11:32 AM
12	Doctor examines Mr. Rajesh and confirms stable condition.	_____	_____	11:35 AM
13	All workers and employees assemble at the designated assembly point.	_____	_____	11:37 AM
14	Rescue team and Auxiliary team arrive at the site.	11:25 AM	5 min	11:40 AM
15	Comprehensive debriefing conducted to discuss the incident.	11:40 AM	_____	11:45 AM

Weakness / Deficiencies Observed during the exercise:

Sno	Observation	Responsibility	Timeline	Status
1	Workers did not immediately recognize the severity of the chemical leak.	Babula Mohanty	Immediate	Completed
2	Insufficient barricading of the affected area.	Combat Team	Immediate	Completed
3	Delay in response time for the Ambulance.	Emergency Control Room	Immediate	Completed
4	Auxiliary team not reached at site.	Indiverker	Immediate	Completed

Good / Positive Observation:

Sno.	Event / Drill sequence
1	Combat team responded quickly and isolated the leak.
2	Immediate evacuation of personnel from the hazardous area ensured no further exposure.
3	Efficient communication between teams helped ensure smooth coordination of the drill

Total 20 Persons Present During Mock Drill

Name of the Observer:

S No	Name	Designation
1	Mr. Biswabhusan Panigrahi	Head Environment
2	Mr. Anuj Kumar	Lead Fire & Safety Officer

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Annexure 8

TEST REPORT

Test Report No	: **KLPL/4/24/ENVN/00137**	*Issue Date*	: 26-Apr-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	: 15-Apr-2024 Commenced On : 15-Apr-2024	*Completion On:*	16-Apr-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-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**61.5**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**51.9**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ADMIN OFFICE, DATE-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**63.3**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**54.8**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-1, DATE-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**68.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**59.9**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-2, DATE-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**63.5**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-3, DATE-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**72.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**64.9**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR COMPRESSOR HOUSE, DATE-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**66.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**59.2**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-3, DATE-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**67.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**56.6**	IS 9989:1981 (RA 2014):2014
Location & Date : ***DM PLANT, DATE-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**67.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**54.9**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-1, DATE-13.04.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**65.2**	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	:	**KLPL/04/24/ENVN/00137**	*Issue Date*	: 26-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	:	15-Apr-2024 Commenced On : 15-Apr-2024	*Completion On:*	16-Apr-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**	**53.8**	IS 9989:1981 (RA 2014):2014
Location & Date :	***NEAR ESP ID FAN-2, DATE-13.04.2024***			
Noise Level Indl. Area (Day)	dB(A)	**75**	**66.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**57.6**	IS 9989:1981 (RA 2014):2014
Location & Date :	***NEAR ETP, DATE-13.04.2024***			
Noise Level Indl. Area (Day)	dB(A)	**75**	**55.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**45.4**	IS 9989:1981 (RA 2014):2014
Location & Date :	***NEAR MAIN GATE, DATE-13.04.2024***			
Noise Level Indl. Area (Day)	dB(A)	**75**	**58.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**47.7**	IS 9989:1981 (RA 2014):2014
Location & Date :	***NEAR PRIMARY CRUSHER, DATE-13.04.2024***			
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.0**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**62.6**	IS 9989:1981 (RA 2014):2014
Location & Date :	***NEAR SECONDRY CRUSHER, DATE-13.04.2024***			
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**65.2**	IS 9989:1981 (RA 2014):2014
Location & Date :	***NEAR STG CONDENSER, DATE-13.04.2024***			
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**64.9**	IS 9989:1981 (RA 2014):2014
Location & Date :	***NEAR WAGON TIPLER, DATE-13.04.2024***			
Noise Level Indl. Area (Day)	dB(A)	**75**	**67.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**58.0**	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	: **KLPL/8/24/ENVN/00196**	*Issue Date*	: 03-Sep-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	: 26-Aug-2024 Commenced On : 26-Aug-2024	*Completion On:*	26-Aug-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-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**60.2**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**49.6**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ADMIN OFFICE, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**60.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**52.6**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-1, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**61.7**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-2, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**72.1**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**61.6**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-3, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.2**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**62.8**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR COMPRESSOR HOUSE, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**68.7**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**49.1**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-3, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.2**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**59.4**	IS 9989:1981 (RA 2014):2014
Location & Date : ***DM PLANT, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**62.7**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**50.1**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-1, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**68.1**	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	:	**KLPL/8/24/ENVN/00196**	*Issue Date*	: 03-Sep-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	:	26-Aug-2024 Commenced On : 26-Aug-2024	*Completion On:*	26-Aug-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**	**54.8**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-2, DATE-24.08.2024***				
oise Level Indl. Area (Day)	dB(A)	**75**	**68.4**	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-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**59.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**49.3**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR MAIN GATE, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**55.0**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**49.6**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR PRIMARY CRUSHER, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**69.1**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**60.2**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR SECONDRY CRUSHER, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**67.0**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**63.1**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR STG CONDENSER, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.7**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**65.0**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR WAGON TIPLER, DATE-24.08.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**66.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**56.2**	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	: **KLPL/7/24/ENVN/00196**	*Issue Date*	: 05-Aug-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-Jul-2024 Commenced On : 29-Jul-2024	*Completion On:*	05-Aug-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-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**59.5**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**48.9**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ADMIN OFFICE, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**59.3**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**51.8**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-1, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**69.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**60.9**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-2, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**60.5**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-3, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**61.9**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR COMPRESSOR HOUSE, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**67.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**48.2**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-3, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**69.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**58.6**	IS 9989:1981 (RA 2014):2014
Location & Date : ***DM PLANT, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**61.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**49.3**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-1, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**67.2**	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	:	**KLPL/7/24/ENVN/00196**	*Issue Date*	: 05-Aug-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-Jul-2024 Commenced On : 29-Jul-2024	*Completion On:*	05-Aug-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**	**53.8**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-2, DATE-27.07.2024***				
ise Level Indl. Area (Day)	dB(A)	**75**	**67.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**56.6**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ETP, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**58.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**48.4**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR MAIN GATE, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**53.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**48.7**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR PRIMARY CRUSHER, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**68.0**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**59.6**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR SECONDRY CRUSHER, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**65.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**62.2**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR STG CONDENSER, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**63.9**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR WAGON TIPLER, DATE-27.07.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**65.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**55.0**	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	: **KLPL/6/24/ENVN/00199**	*Issue Date*	: 29-Jun-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	: 28-Jun-2024 Commenced On : 28-Jun-2024	*Completion On:*	29-Jun-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-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	6005	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	48.9	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ADMIN OFFICE, DATE-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	61.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	52.8	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-1, DATE-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	67.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	57.9	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-2, DATE-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	69.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	61.5	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-3, DATE-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	71.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	62.9	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR COMPRESSOR HOUSE, DATE-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	65.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	47.2	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-3, DATE-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	66.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	54.6	IS 9989:1981 (RA 2014):2014
Location & Date : ***DM PLANT, DATE-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	66.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	52	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-1, DATE-27.06.2024***				
Noise Level Indl. Area (Day)	dB(A)	75	64.2	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	: **KLPL/6/24/ENVN/00199**	*Issue Date*	: 29-Jun-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	: 28-Jun-2024 Commenced On : 28-Jun-2024	*Completion On:*	29-Jun-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	51.8	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ESP ID FAN-2, DATE-27.06.2024				
oise Level Indl. Area (Day)	dB(A)	75	65.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	57.6	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ETP, DATE-27.06.2024				
Noise Level Indl. Area (Day)	dB(A)	75	54.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	43.4	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR MAIN GATE, DATE-27.06.2024				
Noise Level Indl. Area (Day)	dB(A)	75	57.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	45.7	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR PRIMARY CRUSHER, DATE-27.06.2024				
Noise Level Indl. Area (Day)	dB(A)	75	70.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	60.6	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR SECONDRY CRUSHER, DATE-27.06.2024				
Noise Level Indl. Area (Day)	dB(A)	75	69.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	63.2	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR STG CONDENSER, DATE-27.06.2024				
Noise Level Indl. Area (Day)	dB(A)	75	69.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	62.9	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR WAGON TIPLER, DATE-27.06.2024				
Noise Level Indl. Area (Day)	dB(A)	75	66.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	56.0	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	: **KLPL/5/24/ENVN/00158**	Issue Date	: 04-Jun-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	: 27-May-2024 Commenced On : 27-May-2024	Completion On:	27-May-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-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	63.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	52.9	IS 9989:1981 (RA 2014):2014
Location & Date : *NEAR ADMIN OFFICE, DATE-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	61.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	51.8	IS 9989:1981 (RA 2014):2014
Location & Date : *BOILER-1, DATE-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	69.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	58.9	IS 9989:1981 (RA 2014):2014
Location & Date : *BOILER-2, DATE-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	72.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	61.5	IS 9989:1981 (RA 2014):2014
Location & Date : *BOILER-3, DATE-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	73.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	64.9	IS 9989:1981 (RA 2014):2014
Location & Date : *NEAR COMPRESSOR HOUSE, DATE-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	66.9	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 ESP ID FAN-3, DATE-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	68.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	56.6	IS 9989:1981 (RA 2014):2014
Location & Date : *DM PLANT, DATE-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	64.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	53.9	IS 9989:1981 (RA 2014):2014
Location & Date : *NEAR ESP ID FAN-1, DATE-25.05.2024*				
Noise Level Indl. Area (Day)	dB(A)	75	63.2	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	:	**KLPL/05/24/ENVN/00158**	*Issue Date*	: 04-Jun-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	:	27-May-2024 Commenced On : 27-May-2024	*Completion On:*	27-May-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**	**52.8**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ESP ID FAN-2, DATE-25.05.2024				
ise Level Indl. Area (Day)	dB(A)	**75**	**63.6**	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 ETP, DATE-25.05.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**54.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**48.4**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR MAIN GATE, DATE-25.05.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**57.9**	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-25.05.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**72.0**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**61.6**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR SECONDRY CRUSHER, DATE-25.05.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**72.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**63.2**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR STG CONDENSER, DATE-25.05.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.9**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**62.9**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR WAGON TIPLER, DATE-25.05.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**65.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**51.0**	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	:	**KLPL/9/24/ENVN/00290**	*Issue Date*	: 20-Sep-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	:	19-Sep-2024 Commenced On : 19-Sep-2024	*Completion On:*	20-Sep-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-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**59.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**48.5**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ADMIN OFFICE, DATE-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**61.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**51.8**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-1, DATE-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.7**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**60.0**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-2, DATE-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**61.8**	IS 9989:1981 (RA 2014):2014
Location & Date : ***BOILER-3, DATE-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**72.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**62.7**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR COMPRESSOR HOUSE, DATE-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**70.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**50.3**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-3, DATE-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.7**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**60.0**	IS 9989:1981 (RA 2014):2014
Location & Date : ***DM PLANT, DATE-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**61.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**52.4**	IS 9989:1981 (RA 2014):2014
Location & Date : ***NEAR ESP ID FAN-1, DATE-18.09.2024***				
Noise Level Indl. Area (Day)	dB(A)	**75**	**67.4**	IS 9989:1981 (RA 2014):2014

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TEST REPORT

Test Report No	: **KLPL/9/24/ENVN/00290**	*Issue Date*	: 20-Sep-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	: 19-Sep-2024 Commenced On : 19-Sep-2024	*Completion On:*	20-Sep-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**	**55.3**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ESP ID FAN-2, DATE-18.09.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**69.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**58.0**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR ETP, DATE-18.09.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**58.6**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**49.4**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR MAIN GATE, DATE-18.09.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**55.3**	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 PRIMARY CRUSHER, DATE-18.09.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.2**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**62.5**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR SECONDRY CRUSHER, DATE-18.09.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**67.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**63.1**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR STG CONDENSER, DATE-18.09.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**71.4**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**65.0**	IS 9989:1981 (RA 2014):2014
Location & Date : NEAR WAGON TIPLER, DATE-18.09.2024				
Noise Level Indl. Area (Day)	dB(A)	**75**	**66.8**	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	**70**	**56.2**	IS 9989:1981 (RA 2014):2014

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Annexure 9

TEST REPORT

Test Report No	:	**KLPL/4/24/ENVN/00135**
Issue Date	:	26-Apr-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 : 15-Apr-2024 Commenced On : 15-Apr-2024 *Completion On:* 20 -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:-13.04.2024***				
i Benzene (C6 H6)	µg/m³	**05**	**<1.0**	**Requirement is as per standard specification NAAQS:2009**	KLPL/SOP/AIR-07,Issue No.01: 2019
ii Sulphur Dioxide	µg/m³	**80**	**9.73**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
iii Nitrogen Dioxide	µg/m³	**80**	**16.31**	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iv Particulate Matter (PM10)	µg/m³	**100**	**77.69**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
v Particulate Matter (PM2.5)	µg/m³	**60**	**34.05**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	**04**	**0.78**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	**180**	**8.5**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	**1.0**	**<0.02**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	**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/m³	**01**	**<0.1**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	**06**	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	**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:-13.04.2024***				
i Sulphur Dioxide	µg/m³	**80**	**11.34**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	**80**	**17.18**	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	**100**	**82.91**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	**60**	**38.47**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Benzene (C6 H6)	µg/m³	05	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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Test Report No : KLPL/4/24/ENVN/00135

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.67	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	180	7.2	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	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:- 13.04.2024					
i Sulphur Dioxide	µg/m³	80	8.76	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	80	18.45	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	100	76.33	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	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/m³	04	0.52	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi Ozone (O3) (01 Hrs.)	µg/m³	180	6.53	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
viii Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
x Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xi Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
xii Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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TEST REPORT

Test Report No	:	**KLPL/5/24/ENVN/00155**
Issue Date	:	04-Jun-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 : 27-May-2024 Commenced On : 27-May-2024 *Completion On:* 31-May-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/SOP/AIR-20

Parameters	*Unit*	*Requirement*	*Results*	*Standard Reference*	*Test Method*
Location & Date	***: ADMIN BUILDING,DATE:-25.05.2024***				
i Benzene (C6 H6)	µg/m³	05	<1.0	**Requirement is as per standard specification NAAQS:2009**	KLPL/SOP/AIR-07,Issue No.01: 2019
ii Sulphur Dioxide	µg/m³	80	8.99	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
iii Nitrogen Dioxide	µg/m³	80	14.05	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iv Particulate Matter (PM10)	µg/m³	100	76.98	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
v Particulate Matter (PM2.5)	µg/m³	60	34.34	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.75	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	180	6.6	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	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:-25.05.2024***				
i Sulphur Dioxide	µg/m³	80	10.08	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	80	17.83	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	100	71.66	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	60	29.66	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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Test Report No : KLPL/5/24/ENVN/00155

	Parameters	Unit	Requirement	Results	Standard Reference	Test Method
vi	Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.67	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii	Ozone (O3) (01 Hrs.)	µg/m³	180	7.3	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii	Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix	Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi	Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii	Nickel (Ni)	µg/m³	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:- 25.05.2024					
i	Sulphur Dioxide	µg/m³	80	11.25	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii	Nitrogen Dioxide	µg/m³	80	18.45	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii	Particulate Matter (PM10)	µg/m³	100	72.91	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv	Particulate Matter (PM2.5)	µg/m³	60	33.76	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v	Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.72	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi	Ozone (O3) (01 Hrs.)	µg/m³	180	5.8	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii	Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
viii	Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
x	Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xi	Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
xii	Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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TEST REPORT

Test Report No	:	**KLPL/6/24/ENVN/00196**
Issue Date	:	29-Jun-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	:	28-Jun-2024 Commenced On : 28-Jun-2024 *Completion On:* 29-Jun-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/SOP/AIR-20

Parameters	*Unit*	*Requirement*	*Results*	*Standard Reference*	*Test Method*
Location & Date	***: ADMIN BUILDING,DATE:-27.06.2024***				
i Benzene (C6 H6)	µg/m³	**05**	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
ii Sulphur Dioxide	µg/m³	**80**	**9.81**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
iii Nitrogen Dioxide	µg/m³	**80**	**14.4**	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iv Particulate Matter (PM10)	µg/m³	**100**	**66.79**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
v Particulate Matter (PM2.5)	µg/m³	**60**	**34.34**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	**04**	**0.66**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	**180**	**5.1**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	**1.0**	**<0.02**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	**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/m³	**01**	**<0.1**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	**06**	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	**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:-27.06.2024***				
i Sulphur Dioxide	µg/m³	**80**	**10.30**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	**80**	**15.38**	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	**100**	**71.25**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	**60**	**30.31**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Benzene (C6 H6)	µg/m³	05	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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Test Report No : KLPL/6/24/ENVN/00196

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.72	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	180	6.4	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	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:- 27.06.2024					
i Sulphur Dioxide	µg/m³	80	12.15	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	80	19.10	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	100	82.80	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	60	38.30	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.82	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi Ozone (O3) (01 Hrs.)	µg/m³	180	7.7	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
viii Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
x Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xi Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
xii Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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TEST REPORT

Test Report No	:	**KLPL/7/24/ENVN/00195**
Issue Date	:	05-Aug-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-Jul-2024 Commenced On : 29-Jul-2024 *Completion On:* 05-Aug-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
f.To Sampling Procedure:		KLPL/SOP/AIR-20

Parameters	*Unit*	*Requirement*	*Results*	*Standard Reference*	*Test Method*
Location & Date	***: ADMIN BUILDING,DATE:-27.07.2024***				
i Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
ii Sulphur Dioxide	µg/m³	80	8.14	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
iii Nitrogen Dioxide	µg/m³	80	13.19	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iv Particulate Matter (PM10)	µg/m³	100	70.55	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
v Particulate Matter (PM2.5)	µg/m³	60	29.92	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.71	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	180	5.3	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	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:-27.07.2024***				
i Sulphur Dioxide	µg/m³	80	9.07	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	80	12.14	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	100	65.02	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	60	30.31	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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Test Report No : KLPL/7/24/ENVN/00195

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.65	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	180	3.2	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	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:- 27.07.2024					
i Sulphur Dioxide	µg/m³	80	8.17	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	80	14.05	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	100	69.37	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	60	34.33	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.69	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi Ozone (O3) (01 Hrs.)	µg/m³	180	6.5	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
viii Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
x Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xi Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
xii Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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TEST REPORT

Test Report No	:	**KLPL/8/24/ENVN/00195**
Issue Date	:	03-Sep-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-Aug-2024 Commenced On : 24-Aug-2024 *Completion On:* 28-Aug-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/SOP/AIR-20

Parameters	*Unit*	*Requirement*	*Results*	*Standard Reference*	*Test Method*
Location & Date	***: ADMIN BUILDING,DATE:-24.08.2024***				
i Benzene (C6 H6)	µg/m³	**05**	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
ii Sulphur Dioxide	µg/m³	**80**	**8.71**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
iii Nitrogen Dioxide	µg/m³	**80**	**13.87**	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iv Particulate Matter (PM10)	µg/m³	**100**	**62.16**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
v Particulate Matter (PM2.5)	µg/m³	**60**	**29.66**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	**04**	**0.62**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	**180**	**6.4**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	**1.0**	**<0.02**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	**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/m³	**01**	**<0.1**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	**06**	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	**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:-24.08.2024***				
i Sulphur Dioxide	µg/m³	**80**	**7.23**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	**80**	**14.99**	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	**100**	**56.66**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	**60**	**25.32**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Benzene (C6 H6)	µg/m³	05	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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Test Report No : KLPL/8/24/ENVN/00195

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.56	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	180	5.2	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	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:- 24.08.2024					
i Sulphur Dioxide	µg/m³	80	8.12	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	80	12.09	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	100	66.55	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	60	30.05	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.66	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi Ozone (O3) (01 Hrs.)	µg/m³	180	6.5	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
viii Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
x Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xi Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
xii Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

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TEST REPORT

Test Report No	:	**KLPL/9/24/ENVN/00289**
Issue Date	:	20-Sep-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	:	19-Sep-2024 Commenced On : 19-Sep-2024 *Completion On:* 20-Sep-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/SOP/AIR-20

Parameters	*Unit*	*Requirement*	*Results*	*Standard Reference*	*Test Method*
Location & Date	***: ADMIN BUILDING,DATE:-18.09.2024***				
i Benzene (C6 H6)	µg/m³	**05**	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
ii Sulphur Dioxide	µg/m³	**80**	**8.21**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
iii Nitrogen Dioxide	µg/m³	**80**	**12.50**	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iv Particulate Matter (PM10)	µg/m³	**100**	**67.62**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
v Particulate Matter (PM2.5)	µg/m³	**60**	**30.18**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	**04**	**0.67**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	**180**	**5.2**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	**1.0**	**<0.02**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	**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/m³	**01**	**<0.1**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	**06**	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	**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:-18.09.2024***				
i Sulphur Dioxide	µg/m³	**80**	**9.81**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	**80**	**16.05**	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	**100**	**74.91**	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	**60**	**34.34**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Benzene (C6 H6)	µg/m³	05	**<1.0**	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

Kalyani Laboratories Pvt. Ltd. BBSR

KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories

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

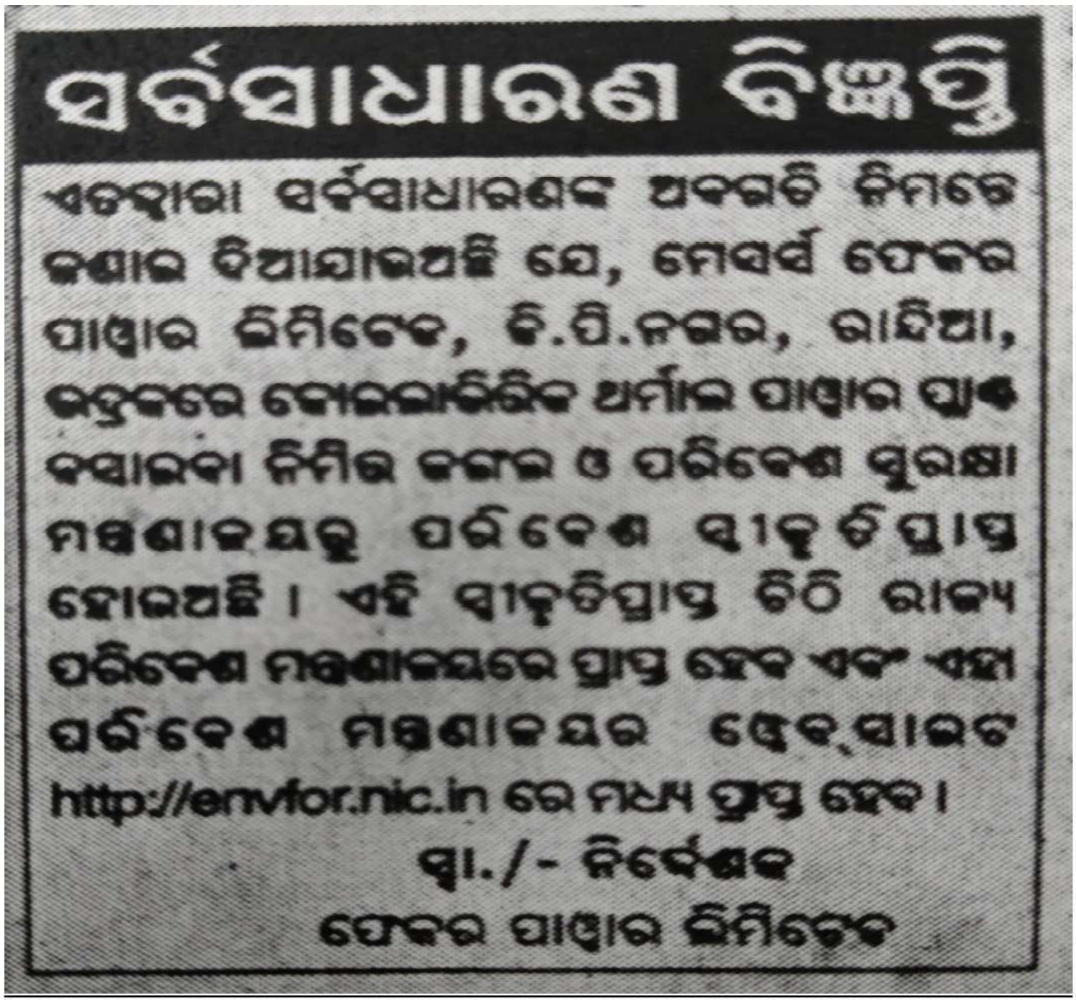
+91 9861463904 M: kalyanilab@yahoo.co.in

Test Report No : KLPL/9/24/ENVN/00289

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
vi Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.74	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Ozone (O3) (01 Hrs.)	µg/m³	180	7.8	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
viii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ix Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
xi Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xii Nickel (Ni)	µg/m³	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:- 18.09.2024					
i Sulphur Dioxide	µg/m³	80	8.66	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
ii Nitrogen Dioxide	µg/m³	80	13.36	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6) :2006
iii Particulate Matter (PM10)	µg/m³	100	70.73	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
iv Particulate Matter (PM2.5)	µg/m³	60	32.47	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue No.01:2017
v Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.70	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vi Ozone (O3) (01 Hrs.)	µg/m³	180	6.5	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
vii Lead (as Pb)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
viii Ammonia (NH3)	µg/m³	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/m³	01	<0.1	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019
x Arsenic (as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
xi Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
xii Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

Kalyani Laboratories Pvt. Ltd. BBSR

Annexure 10



ସର୍ବସାଧାରଣ ବିଜ୍ଞପ୍ତି

ଏତଦ୍ଦ୍ୱାରା ସର୍ବସାଧାରଣଙ୍କ ଅବଗତି ନିମନ୍ତେ ଜଣାଇ ଦିଆଯାଉଅଛି ଯେ, ମେସର୍ସ ଫେକର ପାୱାର ଲିମିଟେଡ, ବି.ପି.ନଗର, ରାନ୍ଦିଆ, ଜଦୁକରେ କୋଇଲାଭିତ୍ତିକ ଥର୍ମାଲ ପାୱାର ପ୍ଲାଣ୍ଟ ବସାଇବା ନିମିତ୍ତ ଜଙ୍ଗଲ ଓ ପରିବେଶ ସୁରକ୍ଷା ମନ୍ତ୍ରଣାଳୟରୁ ପରିବେଶ ସ୍ୱୀକୃତିପ୍ରାପ୍ତ ହୋଇଅଛି । ଏହି ସ୍ୱୀକୃତିପ୍ରାପ୍ତ ଚିଠି ରାଜ୍ୟ ପରିବେଶ ମନ୍ତ୍ରଣାଳୟରେ ପ୍ରାପ୍ତ ହେବ ଏବଂ ଏହା ପରିବେଶ ମନ୍ତ୍ରଣାଳୟର ୱେବ୍‌ସାଇଟ http://envfor.nic.in ରେ ମଧ୍ୟ ପ୍ରାପ୍ତ ହେବ ।

ସ୍ୱା./- ନିର୍ଦ୍ଦେଶକ

ଫେକର ପାୱାର ଲିମିଟେଡ

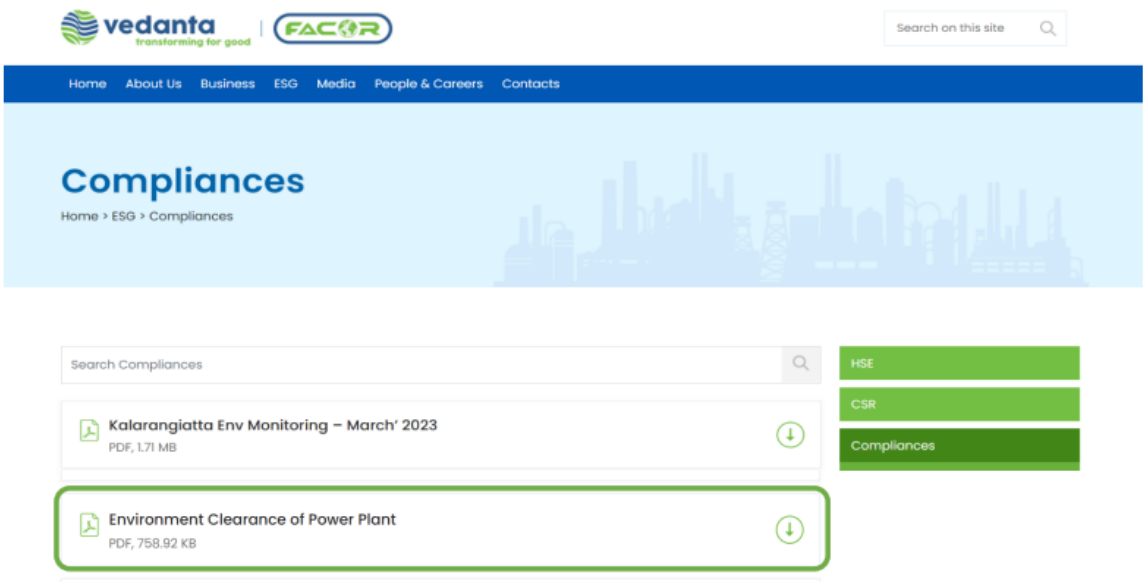
PUBLIC NOTICE

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 Miistry of Environment and Forests at **http://envfor.nic.in.**

Date - 11-05-2009.

THE SAMAJ. [bottom corner of the page-9]

Environment Clearance in Company Portal



Ref. No: FACL/BDK/ SPCB/120/2024-25
Date: 28.09.2024

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 2023-24 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,2024 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.

ENVIRONMENTAL STATEMENT REPORT

FOR THE FINANCIAL YEAR 2023-24

IN RESPECT OF

FERRO ALLOYS CORPORATION LIMITED (POWERPLANT)

Randia, Bhadrak,
Odisha.

FORM – V
(See Rule – 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2023-24

PART - A

01.	Name and address of the owner/occupier of the industry operation	:	**M/s. Ferro Alloys Corporation Limited (Power Plant)** At:D.P.Nagar, Po:Randia, District – Bhadrak-756135, Odisha.
02.	Industry Category Primary (STC Code) Secondary (SIC code)	: :	Red category
03.	Production Capacity	:	Captive Power Plant - 100 MW
04.	Year of Establishment	:	July'2011
05.	Date of last Environmental Statement submitted	:	29.09.2023

PART - B

WATER CONSUMPTION & RAW MATERIAL CONSUMPTION

1. **Water Consumption**	**M^3/day (Max.)**
Process	58
Industrial Cooling	2522
Domestic (Potable)	68

2. Process Water Consumption

Name of the Products	Generation		Process water consumption / unit of Output	
	22-23	23-24	22-23	23-24
Power	290365 MWH	290536 MWH	3.31 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	
		22-23	23-24
Coal	Power	0.99 MT/MW	0.924 MT/MW
HSD	Power	4 to 5 KL in every startup	32 KL

PART - C

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

A: WATER

1. ETP Treated Water:

Sl. No.	Parameters	GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS PART-A: EFFLUENTS	Quantity of Pollutants Discharged (load)/ Effluent Parameter
01.	Color		<1 TCU
02.	Odour		Desirable
03.	Suspended Solids, mg/l	100	32
04.	Particulate size of suspended solids	Shall pass 850 micron IS sieve	

05.	pH	5.5 to 9	8.1
06.	Temperature (°C)	shall not exceed 5°C above the receiving water temperature	NA
07.	Oil & Grease		<1.0
08.	Total Residual Chlorine, mg/l	1.0	<0.05
09.	Ammoniacal nitrogen (as N), mg/l	50	5.6
10.	Total Kjeldahl Nitrogen (as NH3) mg/l	100	8.96
11.	Free Ammonia (NH3), mg/l	5.0	<1.0
12.	BOD of 27 ^{0}C mg/l	30.0	10.0
13.	Chemical Oxygen Demand (COD), mg/l	250	35.0
14.	Arsenic (As), mg/l	0.2	<0.001
15.	Mercury (Hg), mg/l	0.01	<0.0005
16.	Lead (Pb), mg/l	0.1	<0.005
17.	Cadmium (Cd), mg/l	2.0	<0.001
18.	Hexavalent Chromium (Cr^{+6}), mg/l	0.1	<0.01
19.	Total Chromium (Cr), mg/l	2.0	<0.05
20.	Copper (Cu), mg/l	3.0	<0.02
21.	Zinc (Zn), mg/l	5.0	<0.05
22.	Selenium (Se) , mg/l	0.05	<0.005
23.	Nickel (Ni), mg/l	3.0	<0.01
27.	Cyanide (CN), mg/l	0.2	<0.02
29.	Fluoride as F, mg/l	2.0	0.85
30.	Dissolved Phosphates (P), mg/l	5.0	<0.5
32.	Sulphide (S), mg/l	2.0	<0.1
33.	Phenolic compounds (C6H5OH) , mg/l	1.0	<0.001
34.	Radioactive Materials: a) Alpha emitter, micro curie/ml b) Beta emitter, micro curie/ml	a) 10^{-7} b) 10^{-6}	a) $2.7*10^{-10}$ b) $8.1*10^{-10}$
35.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90%
36.	Manganese (Mn), mg/l	2.0	<0.05
37.	Iron (Fe), mg/l	3.0	1.8
38.	Vanadium as V, mg/l	0.2	<0.008
39.	Nitrate Nitrogen, mg/l	10	9.0

2. Cooling Tower Blowdown

Parameters	Unit of Measurement	Standard as per CTO	Wastewater quality
Free available Chlorine	mg/l	0.5	0.3
Zinc as Zn	mg/l	1	0.49

Chromium (Total)	mg/l	2	<0.01
Phosphate as PO_4	mg/l	5	3.3

3. Boiler Blowdown

Parameters	Unit of Measurement	Standard as per CTO	Wastewater quality
Total Suspended Solids as TSS	mg/l	100	8.8
Oil & Grease	mg/l	20	<1.0
Total Copper as Cu	mg/l	1	<0.02
Total Iron as Fe	mg/l	1	<0.05

4. STP Treated Water

Parameters	Unit of Measurement	Standard as per CTO	Treated water quality
Total Suspended Solids	mg/l	100	88
pH at 25°C	-	6.5-9.0	6.9
Biochemical Oxygen Demand (as BOD), 3 Days at 27°C	mg/l	30	5.0
Fecal Coliform (as FC)	MPN/100 ml	<1000	110

B. AIR

Sl.No.	**Location**	**Pollutant concentration**				
		PM (mg/Nm^3)		**SO_2 (mg/Nm^3)**	**NOx (mg/Nm^3)**	
01.	ESP outlet of CFBC Boiler	42.32		132.25	84.5	
		CO2 (%)		**CO (%)**	**Hg (%)**	
		8.1		<0.001	0.015	
02.	Ambient Air	**PM 2.5 ($\mu g/m^3$)**	**PM 10 ($\mu g/m^3$)**	**SO_2 ($\mu g/m^3$)**	**NOx ($\mu g/m^3$)**	**CO (mg/m^3)**
		39.83	82.43	10.58	18.52	0.58

PART – D

HAZARDOUS WASTE

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

Hazardous Waste	Total Quantity	
	22-23	23-24

Used Oil	1.36 KL	0 KL
Waste containing Oil	0T	0T
Spent Resin	0 KL	0 KL
ETP Chemical Sludge	0 MT	0 MT
Empty Containers	0 MT	0.98 MT

PART- E

SOLID WASTE

Source	Total Quantity (MT)	
	22-23	23-24
Fly ash from Silos	47306	100607
Bottom ash from Boiler	6493	16151

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 (23-24)	Characteristics of fly ash	Remarks
Fly ash & Bottom Ash	116758 MT	Al2O3 – 23.5% Arsenic (As) - <0.005 Mg/Kg Cadmium <0.005 Mg/kg Calcium (As CaO)- 7.3% Chromium (as Cr) – 2.0 Mg/kg Fe2O3 – 4.2% Lead (Pb) – 0.12 Mg/kg MgO – 1.5% Beryllium (as Be) <0.005 Mg/kg Mercury (as Hg) <0.005 Mg/kg SiO2 – 60% Barium (as Ba) <0.005 Mg/kg Nikel (as Ni)-0.15 Mg/kg	We have provided 3 nos. of flyash silo & 1 no bed ash silo of 800M^3 volume each for CFBC Boiler and we have pneumatic ash handling system to control fugitive emission. Then ash is unloaded from silo into trucks and utilize for Fly ash brick manufacturing plants and low-lying area land filling etc.

PART-G

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

1. Ferro Alloys Corporation Ltd. (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 the environment.

2. High efficiency electro-static precipitators have been installed in CFBC boiler to control particulate matter emission.
3. We have installed 10KLD STP for sewage water treatment and recycling the water in gardening.
4. Similarly, 1000KLD Surface Runoff Treatment Plant has been installed to treat all runoff water inside the plant to achieve Zero Liquid Discharge.
5. To ensure cleanliness of outside public roads a Wheel washing system has been in operation to clean the wheel of vehicles.
6. Green belt has been developed inside the plant premises to achieve the statutory requirement as well as to act as a barrier to reduce the spreading of noise and dust pollution.
7. All internal roads have been concreted to reduce the fugitive dust emission inside the plant premises.
8. FPL 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 7KL) 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.
10. One Mechanical Road Sweeping Machine has been deployed for effective cleanliness of inside roads.

PART- H

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

Expenditure for Environmental Protection FY 2023-24

i)	Supply and installation of IOT flowmeter in intake well	:	28,305/-
ii)	AMC for AAQMS & CEMS & data communication	:	4,18,160/-
iii)	Maintenance expenditure on ESP	:	6,80,000/-

iv)	Digital Flowmeters	:	50,730/-
v)	Energy consumption for Pollution control devices	:	33,33,880/-
vi)	Engagement of Labor for housekeeping & Plantation maintenance work	:	23,06,880/-
vii)	Engagement of Water Tanker for dust suppression	:	2,63,864/-
viii)	Deployment of Mechanical Road Sweeping Machine	:	2,74,350/-
ix)	Hazardous Waste Audit & Training	:	54,823/-
x)	Operation & Maintenance of STP	:	2,73,613/-

Investment Proposal for Environmental Protection FY 2024-25

- Performance Evaluation of Pollution Control Devices– Rs.16,000,00/-
- Performance Improvement and maintenance of Effluent Treatment Plant- Rs. 12,000,00/-
- Deployment of Truck mounted Mist cannon– Rs. 21,45,240/-
- Operational & Maintenance of Road sweeping machine O&M – Rs. 10,97,400/-

PART – I

Any other particulars for improving the quality of the environment

M/s Ferro Alloys Corporation Limited (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 reuse the water in gardening. Similarly, 1000KLD Surface Runoff Treatment Plant has installed to treat all runoff water inside the plant to achieve Zero Liquid Discharge. Fly ash is being utilized in bricks plant. We are continuously developing greenbelt wherever the open space is available to improve the plant beautification as well as prevention of pollution.

FERRO ALLOYS CORPORATION LTD. POWER PLANT RANDIA BHADRAK