



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.

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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: U452010R1955PLC008400.





Six Monthly Environmental Compliance Report for the period from April 2024 up
to September 2024

	to september 2	2024
Condition No.	<b>Stipulated Conditions</b>	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.	respect of the stipulated terms and conditions of Environmental clearance are being submitted to the
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 <b>Annexure-1</b> .
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
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.





	NT 1 1 11 1 1 1	NT 1
X	No ground water shall be extracted	No ground water is being extracted
	for the project work at any stage.	for this project.
	The technical specification of CFBC	All technical specifications of CFBC
	system, lime requirement along with	system along with pollution potential
	point of injection into the bed, peak	had been submitted to the authority
	temperature of combustion, SO2	before commissioning of the plant.
	and NOx emission potential etc.	Online monitoring for SOx, NOx &
:	from the manufacturer to ensure the	SPM has been carried out. Evacuation
xi	pollution potential (both qualitative	of Fly ash and Bed ash from Boiler to
	and quantitative) of the proposed	silo is being done through pneumatic
	project with respect to bed ash, fly	conveying system. Zero discharge has
	ash, effluents, emissions etc. to be	been adopted.
	submitted to SEIAA before	T. C.
	commissioning of the plant.	
	The proponent shall treat the flue	SO <sub>2</sub> emission level is very less than
	gas through Flue Gas De-	the prescribed standard. Hence
	sulfurisation (FGD), if SO <sub>2</sub> emission	treatment of Flue gas is not required.
	level exceeds the prescribed norm.	Regular monitoring by third party on
xii	To you encoded the presented norm.	monthly basis has also been carried
		out. Copy of monitoring report from
		April 2024 to Sept 2024 are enclosed
		herewith as <b>Annexure-1</b>
	Adequate dust extraction system	Dust suppression and Dust extraction
	such as cyclones/ bag filters and	system have been provided in Coal
	water spray system in dusty areas	Handling Plant transfer areas, Wagon
	such as in coal handling and ash	Tippler etc. Sprinkling and spray
xiii	handling points, transfer areas and	arrangements have been provided in
	other vulnerable dusty areas shall be	coal stockpile area and Ash Handling
	provided.	Points. Photocopies are enclosed as
	provided.	Annexure-2
	Fly ash shall be collected in dry form	Pneumatic conveying system has
xiv	and storage facility (silos) shall be	been provided for dry ash disposal
	provided 100% fly ash utilization	along with silos. Almost 100% ash
	shall be ensured as per fly ash	utilization is being achieved. There
	notification of MoEF, Govt. of	are no effluents emanating from ash
	India. Unutilized fly ash and bottom	pond. However, ground water
	ash shall be stored in the ash pond	monitoring near ash pond is being
	separately through high	conducted regularly. Test report of is
	concentration slurry disposal	attached as <b>Annexure 3</b>
	method. Mercury levels along with	actuation as mineralic 5
	other heavy metals (Pb,Cr,As etc)	
	should be monitored in the fly ash/	
	should be mollitored in the fry ash/	

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	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 recirculated 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 <b>Annexure- 4.</b>

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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 <b>Annexure 5</b>
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 <b>Annexure-6</b> .  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%.





### Annexure 1

	Annexure '	1
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 <b>Annexure-3</b> .
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.	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 <b>Annexure</b> -





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 <b>Annexure-9</b>
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.	
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.

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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	The project proponent was advertised in the local newspaper dated 11.05.2009. Copy enclosed herewith as <b>Annexure-10.</b>
	with the State Pollution Controal Board and SEIAA.	
xxxiii		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 <b>Annexure -11</b>
xxxiv	1 1	V is being submitted to the Board annually and the same has been

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	The above mentioned stipulated Agree to abide.
	conditions shall be complied in time
	bound manner. Failure to comply
	with any of the conditions
XXXV	mentioned above may result in
	withdrawal of this clearance and
	attract penal action under the
	provisions of Environment
	Protection (EP) Act, 1986.

### KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories

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

(S) (S) +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 : 15-Apr-2024

Commenced On: 15-Apr-2024

Completion On:

16-Apr-2024

Date of receipt Sample Name

: FLUE GAS | STACK MONITORING

Sample Condition

: GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

: MR. SUDHIR KUMAR BARIK

Sample Collected By Ref.To Sampling Procedure : KLPL/SOP/AIR-20 Parameters

Results

Test Method

Location & Date

Unit Standard Value : STACK ATTACHED TO ESP BOILER, DATE-13.04.2024

Particulate Matter	mg/Nm³		45.32	IS 11255(Part-1):1985,RA:2019
arbon Monoxide (CO) (01 Hrs.)	mg/m³	1	<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 The results relate only to samples tested and test parameters

:NIL

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

BBSR

Analysed By

Mr. Digambar Arukha For Kalyani Laboratories Pvt. Ltd. **Authorised Signatory** 

Touckery Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

## $\Diamond$ KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories

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



[6] (8) +91 9861463904 M: kalyanilab@yahoo.co.in

### **TEST REPORT**

KLPL/4/24/ENVN/00136A **Test Report No** 

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 Commenced On: 15-Apr-2024

Completion On:

16-Apr-2024

Date of receipt

: 15-Apr-2024

Sample Name Sample Condition DG STACK MONITORING

: GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

: MR. SUDHIR KUMAR BARIK

Sample Collected By

Kenro camping	/SOP/AIR-20	Standard	Value Results	Test Method
Parameters	Unit		MATERIAL STATE OF THE STATE OF	
Location & Date : 100	O KV DG STAC	K, DATE-13	.04.2024	
Particulate Matter	mg/Nm³		17.45	IS 11255(Part-1):1985,RA:2019
arbon 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 The results relate only to samples tested and test parameters

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BBSR

Analysed By

D Dould Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

Hagney\_ Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

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### KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories

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

### **TEST REPORT**

Test Report No

KLPL/5/24/ENVN/00156

Issue Date

: 04-Jun-2024

Amendment No

Customer Name

Amendment Date

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

Reference

POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

28-May-2024

Address Date of receipt D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA 27-May-2024

Commenced On: 27-May-2024

Completion On:

Sample Name

FLUE GAS | STACK MONITORING

Sample Condition

Sample Collected By

: GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

: MR. SUDHIR KUMAR BARIK

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

Standard Value Results

Test Method

Unit

Particulate Matter	mg/Nm³		42.32	IS 11255(Part-1):1985,RA:2019
bon 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 The results relate only to samples tested and test parameters

:NIL

Analysed By

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

1353/800 all

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

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



Kalyani Laboratories

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

### **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 Address

POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Commenced On: 28-Jun-2024

Completion On:

29-Jun-2024

Date of receipt

28-Jun-2024

FLUE GAS | STACK MONITORING

Sample Name Sample Condition

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Sample Collected By

MR. SUDHIR KUMAR BARIK Ref. To Sampling Procedure : KLPL/SOP/AIR-20

Pa	ra	m	et	e	rs	

Unit

Standard Value

Results

Test Method

Location & Date	:	STACK ATTACHED	TO	ESP	BOILER,	DATE-27	06.	2024
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Particulate Matter	mg/Nm³	50	41.41	IS 11255(Part-1):1985,RA:2019	
rbon 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

malysed By

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

orator

BBSR

Authorised Signatory tooogenal

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

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KALYANI LABORATORIES PVT.LTD.

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

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#### **TEST REPORT**

Test Report No

Kalyani Laboratories

KLPL/7/24/ENVN/00198

Issue Date

: 05-Aug-2024

Amendment No

Reference

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

Amendment Date

Customer Name

POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

Address

D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA 29-Jul-2024

Commenced On: 29-Jul-2024

Completion On:

05-Aug-2024

Date of receipt Sample Name

FLUE GAS | STACK MONITORING : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Sample Condition

: MR. SUDHIR KUMAR BARIK

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

Parameters	
Location & Date	

Results Standard Value

Test Method

Parameters			
Location & Date	: STACK ATTACHED	TO ESP BOILER,	DATE-27.07.202

Particulate Matter	mg/Nm³	 38.32	IS 11255(Part-1):1985,RA:2019
rbon 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 The results relate only to samples tested and test parameters

:NIL

Analysed By

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

atorie BBSR

Authorised Signatory

Dogsman

Dr. Debasis Biswal For Kalyani Laboratories Pvt. Ltd.

KLPL-



ani Laboratories

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

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

Address

Commenced On: 24-Aug-2024

Completion On:

02-Sep-2024

Date of receipt Sample Name

24-Aug-2024

FLUE GAS | STACK MONITORING

Sample Condition

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED : MR. SUDHIR KUMAR BARIK

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

179	S France	THE RESERVE	227.02	
Par				

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
arbon 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 The results relate only to samples tested and test parameters

:NIL

atorie

BBSR

Analysed By

Assidora

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

Authorised Signatory

Soogenal

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

KLPL-

Calyani Laboratories

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

#### **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 Address

POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

27-Sep-2024

Date of receipt

19-Sep-2024

Commenced On: 19-Sep-2024

Completion On:

Sample Name Sample Condition FLUE GAS | STACK MONITORING

GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED

Sample Collected By

MR. SUDHIR KUMAR BARIK Ref. To Sampling Procedure : KLPL/SOP/AIR-20

Parameters

Results

Test Method

Location & Date

Unit Standard Value

: STACK ATTACHED TO ESP BOILER, DATE-18.09.2024

			6	
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	1	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 he results relate only to samples tested and test parameters

malysed By

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

orato BBSR

Authorised Signatory

Donbra

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

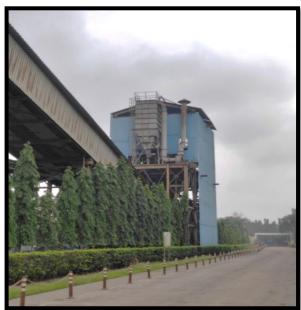
KLPL-





### **Dust Suppression Systems**

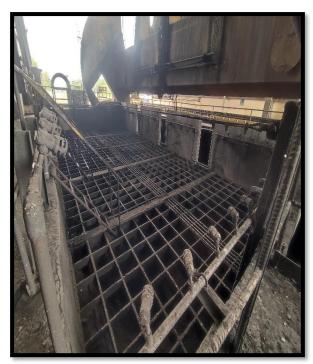




Dedusting Units in Coal Handling Plant



Water Sprinklers in Coal Stock Area



Water Sprinklers in Wagon Tippler

Kalvani Laboratories

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

(a) +91 9861463904 M: kalyanilab@yahoo.co.in

### **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 : NOT APPLICABLE

MFG Date: NOT APPLICABLE

EXP Date: NOT APPLICABLE

Test Mathod

Batch No , Lot No

Sample Collection Location, & Date :

eceived Quantity Sample Collected By

4 LITRE : MR. SUDHIR KUMAR BARIK

NEAR ASH POND BOREWELL -13.04.2024

Sampling Procedure if Any : KLPL/QSP-07

				0.4	IS: 10500: 2012	APHA 6232
	Bromoform	mg/I , max	0.1	<0.1	15 . 10300 . 2012	MACO STATE ASSAULT
	Dibromochloromethane	mg/l, Max	0.1	<0.1	IS: 10500: 2012	APHA 24th Edition-2023 (6232)
			0.0	<0.2	IS: 10500: 2012	APHA 24th Edition 6232
	Chloroform	mg/l, Max	0.2	C0.2	13 . 10300 / 2022	500.5594.537 4
			0.06	<0.06	IS: 10500: 2012	APHA 24th Edition 6232
	Bromodichloromethane	mg/l, Max	0.06	<0.00	15.10500.2012	
т	ERIOLOGICAL QUALITY					
	Total Coliforms	MPN/100 ml	Shall not be detected in any 100ml sample	<2	IS: 10500:2012	IS 1622:1981 RA 2009
<u></u>	E.coli	MPN/100ml	Shall not be detected in any 100ml	<2	IS: 10500: 2012	IS 1622:1981, RA 2009
	DADAMETED		sample			'
HE	Nitrate as NO3	mg/l, Max	45	0.5	IS: 10500:2012	Cl.3.0 of IS 3025 (PART 34): 1988, RA 2019
					_	
	Ammonia	mg/l, Max	0.5	<0.03	IS: 10500: 2012	IS:3025(Part-34): 2012
		mg/l, Max	75	51.2	IS: 10500:2012	Cl.5.0 of IS 3025 (Part 40):1991, RA 2019
i	Calcium (as Ca)	Ilig/I, Max	/3			
	Chloride (as CI)	mg/l, Max	250	38	IS: 10500:2012	IS 3025 (Part 32):1988, RA 2019
\/						
V					IS: 10500:2012	Cl.6.0 of IS 3025 (Part 42):1992, RA 2019
v v	Copper (as Cu)	mg/l, Max	0.05	<0.02	13 / 10350 / 12411	
		mg/l, Max	0.05	<0.02	IS: 10500:2012	CI.5.0 of IS 3025 (Part 60):2008, RA 2019

Page 1 of 5

KLPL-10010568B

## \$ KALYANI LABORATORIES PVT.LTD.

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

(S) (S) +91 9861463904 M: kalyanilab@yahoo.co.in

Test Report No

Kalyani Laboratories

: KLPL/4/24/WATER/00681

t Report	: No : KLPL/2	4/24/WAII				
					IS: 10500:2012	Cl.3.0 of IS 3025 (Part 26):2021
Free resi	dual chlorine	mg/I, Min	0.2	<0.05	15: 10300 .2012	
					IS: 10500:2012	Cl.6.0 of IS 3025 (Part 53):2003, RA 2019
Iron (as	Fe)	mg/l, Max	1	<0.05	15: 10300 .2012	
1					2012	Cl.6.0 of IS 3025 (Part 46):1994, RA 2019
Magnesi	ım (as Mg)	mg/l, Max	30	9.72	IS: 10500:2012	Cl.0.0 01 15 3025 (1 8 4 4 5 )
						Cl.5.0 of IS 3025 (Part 59):2006, RA 2017
Mangane	ese (as Mn)	mg/l, Max	0.1	<0.05	IS: 10500:2012	Cl.5.0 of IS 3025 (Part 59):2000, RA 2017
						_
Mineral	oil	mg/l, Max	0.5	<0.5	IS: 10500:2012	Cl.5.0 of IS 3025 (Part- 39):2021
Milleral	OII					
		- /I Mass	0.001	<0.001	IS: 10500:2012	Cl.5.0 of IS 3025 (Part 43):1992, RA 2019
Phenolic	compounds (as C6H5OH)	mg/l, Max	0.001	10.002		
					IS: 10500:2012	Cl.7.0 of IS 3025 (Part 56):2003, RA 2019
ii Seleniu	m (as Se)	mg/I, Max	0.01	<0.005		
					*	Cl.4.0 of IS 3025 (Part 24):1986, RA 2019
iv Sulphat	e (as SO4)	mg/l, Max	200	24	IS: 10500:2012	Cl.4.0 of 15 3023 (Part 24).1360, 100
Total a	kalinity (as CaCO3),	mg/l, Max	200	164	IS: 10500:2012	IS 3025 (Part 23):1986, RA 2019
V Total a	Kallinty (as edges)/					
		mg/l, Max	200	168	IS: 10500:2012	IS 3025 (Part 21):2009, RA 2019
vi Total h	ardness (as CaCO3),	ilig/i, Max	200			
				10.05	IS: 10500:2012	Cl.6.0 of IS 3025 (Part 49):1994, RA 2019
vii Zinc (a	s Zn)	mg/l, Max	5	<0.05	13 . 10300 .2022	
					2012	APHA 24th Edition(3111 C): 2023
viii Total C	Chromium	mg/l, Max	0.05	<0.01	IS: 10500:2012	AFIIA 2401 Edition(5222 5)
					9	(D 1 20) 1000 DA 2010
cix Sulphi	de	mg/l, Max	0.05	<0.01	IS: 10500: 2012	Cl.3.0 of IS 3025 (Part 29):1986 RA 2019
.,,,						
Alumii	nium (as AI)	mg/I,Max	0.03	<0.02	IS:10500:2012	Cl.5.0 of IS 3025 (part-55):2003, RA 2019
Alumii	110111 (05 711)					
	a f Astina Agents (35	mg/l, Max	0.2	<0.05	IS: 10500:2012	Annex - K OF IS 13428:2005
xxi Anion MBAS	c Surface Active Agents (as )	mg/i, riux	0.12			
Just 1 have read a feet from the			0.5	<0.1	IS: 10500:2012	IS 3025 (Part-57):2021
xxii Boron	(as B)	mg/l, Max	0.5	20.1	13 . 10303 . 120	
					10500 -2012	APHA 24th Edition (6440-B):2023
xxiii Polyn	uclear Aromatic Hydrocarbon	mg/l, Max	0.0001	<0.00005	IS: 10500:2012	All In Z to Z south
						2005
xxiv Bariu	m (as Ba)	mg/l, Max	0.7	<0.2	IS: 10500: 2012	Annex F of IS 13428:2005
VVVV Silve	r (as Ag)	mg/l, Max	x 0.1	<0.005	IS: 10500: 2012	Annex J of IS 13428: 2005 RA 2009
XXV Silve	(65 /9)					
	7	mg/l, Ma:	x 0.07	< 0.01	IS: 10500: 2012	IS 3025 (Part 2): 2002 (aborato,
xxvi Moly	bdenum (as Mo)	ing/i, iria.	0.07			
			4.0	<1.0	IS: 10500: 2012	IS 3025 (Part 26):2000 E RDC -
xxvi Chlo	ramines (CI2)	mg/I, Ma	x 4.0	<1.0	15 . 10500 . 2012	IS 3025 (Part 26):200 BBSR
					10	

Kalyani Laboratories

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

Test Report No

: KLPL/4/24/WATER/00681

	Polyclorinated biphenyls	ma/l May	T 0 000E	<0.00005	Jr 10500 - 2012	L A M - 6 IS 12429 - 2005
(XV	T Polyclormated diphenyls	mg/l, Max	0.0005	<0.00005	IS: 10500: 2012	Annex M of IS 13428 : 2005
ES	STISIDE					
	p p DDE	μg/l, Max	1	< 0.05	IS: 10500: 2012	USEPA 508,Rev 01:1994
			10000			
	p p DDD	μg/I, Max	1	<0.05	IS: 10500: 2012	USEPA 508,Rev 01:1994
	10- 10 <sup>1</sup>	NA 23460 - UK				
i	p p DDT	μg/I, Max	1	<0.05	IS: 10500: 2012	USEPA 508,Rev 01:1994
V	o p DDT	μg/I, Max	1	<0.05	IS: 10500: 2012	USEPA 508,Rev 01:1994
			,			
	o p DDD	μg/I, Max	1	<0.05	IS: 10500: 2012	USEPA 508,Rev 01:1994
	a HCH	//	0.01	10.01	15 40500 2042	
'i	а-НСН	μg/I, Max	0.01	<0.01	IS: 10500: 2012	USEPA 508,Rev 01:1994
ii	В-НСН	μg/l, Max	0.04	<0.04	IS: 10500: 2012	USEPA 508,Rev 01:1994
		pg/// ridx	0.07	10.04	15 . 10500 . 2012	33L/A 300,Rev 01.1994
iii	§-HCH	μg/l, Max	0.04	<0.04	IS: 10500: 2012	USEPA 508,Rev 01:1994
	887 95				March Section Vision Committee	
<	Lindane	μg/l, Max	2	<0.05	IȘ: 10500 : 2012	USEPA 508,Rev 01:1994
	Endosulfan a	μg/l, Max	0.4	<0.05	IS: 10500: 2012	USEPA 508,Rev 01:1994
j	Endosulfan sulphate	μg/l, Max	0.4	<0.05	IS: 10500: 2012	USEPA 508,Rev 01:1994
ii	Monocrotophos	μg/l, Max	1	<0.05	IS: 10500: 2012	USEPA 8141 A,Rev 01:1994
V						
iii	Chlorpyrifos	μg/l, Max	30	<0.05	IS: 10500: 2012	USEPA 8141 A,Rev 01:1994
	(1					
iv	Phorate	μg/l, Max	2	<0.05	IS: 10500: 2012	USEPA 8141 A,Rev 01:1994
200	Towns to the second sec					
V	Isoproturon	μg/l, Max	9	<0.05	IS: 10500: 2012	USEPA 8321,Rev 01,Dec:1996
vi	Methyl Parathion	μg/l, Max	0.3	<0.05	IS: 10500: 2012	USEPA 8141 A,Rev 01:1994
	,	pg/// nax	0.5	0.03	13.10300.2012	03LFA 0141 A,REV 01.1354
vii	Malathion	μg/l, Max	190	<0.05	IS: 10500: 2012	USEPA 8141 A,Rev 01:1994
		DE 812 2				
viii	Polychlorinated biphenyls	μg/l, Max	0.0005	<0.00005	IŞ: 10500: 2012	Annex M of IS 13428 : 2005
						norato,
ix	Endosulfan ß	μg/l, Max	0.4	<0.05	IS: 10500: 2012	USEPA 508,Rev 01:1994
						IE Pro-
X	2,4-D	μg/l, Max	30	<0.05	IS: 10500: 2012	USEPA 515.1, Rev 01:1995 BBSR
						150

KLPL-10010868B

Kalyani Laboratories

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

Test Report No

: KLPL/4/24/WATER/00681

	Lucal Bass	125	< 0.05	IS: 10500: 2012	USEPA 8141 A,Rev 01:1994
Butachlor	μg/I, Max	125	<b>V0.03</b>		
		20	<0.05	IS: 10500: 2012	USEPA 8141 A,Rev 01:1994
Alachlor	μg/I, Max	20	<0.05	13 . 10300 . 2022	
				10. 10.500 - 2013	USEPA 8141 A,Rev 01:1994
Atrazine	μg/I, Max	2	<0.05	15 : 10500 : 2012	OSEIN OF THE PROPERTY OF THE P
	// Mari	0.03	< 0.03	IS: 10500: 2012	USEPA 508,Rev 01:1994
Dieldrin	μg/I, Max	0.03	10.00	*	
	ug/L May	3	< 0.05	IS: 10500: 2012	USEPA 8141 A,Rev 01:1994
ethion (Residue to be Determined as ethion and its oxygen analogue and expressed as ethion)	рд/1, Мах	3			
SICAL PARAMETER				ItC - 10E00 - 2012	Cl.2.0 of IS 3025 (Part 4): 2021
Colour	Hazen, Max	5	<1.0	15 : 10300 .2012	
		Agraeable	AGREFABLE	IS: 10500:2012	IS 3025 (Part 5):1983,RA:2012
Odour		Agreeable	AGREEADEE		
		6 5-8 5	7.3	IS: 10500: 2012	IS 3025 (Part-11):1983,RA:2012
pH value		0.5 0.5			
		Agreeable	AGREEABLE	IS: 10500:2012	IS 3025 (Part 8):1984, RA 2017
Taste		Agreeable	1,101,111		
	NITH May	1	0.8	IS: 10500:2012	IS 3025 (Part 10):1984, RA 2017
Turbidity	NTU, Max	1	0.0		
	ma/L May	500	300	IS: 10500:2012	IS 3025 (Part 16):1984, RA 2017
Total dissolved solids	mg/i, max	300			
XIC SUBSTANCES					015.0 (10.2035 (Doub 41),1002 PA 2019
	mg/l, Max	0.003	< 0.001	IS: 10500:2012	Cl.5.0 of IS 3025 (Part 41):1992, RA 2019
produces and the second					
Consider (see CNI)	ma/L May	0.05	<0.02	IS: 10500:2012	IS 3025 (Part 27):1986, RA 2019
Cyanide (as CN)	mg/i, Max	0.03		1000	
	ma/l May	0.01	< 0.005	IS: 10500:2012	Cl.7.0 of IS 3025 (Part 47):1994, RA 2019
Lead (as Pb)	mg/i, max	0.01			
	ma/L May	0.001	<0.0005	IS: 10500:2012	Cl.5.0 of IS 3025 (Part 48):1994, RA 2019
Mercury (as Hg)	mg/I, Max	0.001			
Tabel suspine (no Ac)	ma/l Mav	0.01	<0.001	IS: 10500:2012	IS 3025 (Part 37):1988, RA 2019
Total arsenic (as As)	Illig/1, Max	0.01		united of Millian Selfertistics Registration (1)	
Nickel (as Ni)	mg/l, Max	0.02	<0.01	IS: 10500: 2012	Cl 7.0 of IS 3025 (Part 54):2005
Nickel (as Ni)					
	Alachlor  Atrazine  Dieldrin  Ethion(Residue to be Determined as ethion and its oxygen analogue and expressed as ethion)  SICAL PARAMETER  Colour	Butachlor  Alachlor  Alachlor  Atrazine  Dieldrin  Dieldrin  Ethion(Residue to be Determined as ethion and its oxygen analogue and expressed as ethion)  SICAL PARAMETER  Colour  PH value  Taste  Turbidity  NTU, Max  Total dissolved solids  mg/l, Max   XIC SUBSTANCES  Cadmium (as Cd)  mg/l, Max  Mercury (as Hg)  mg/l, Max  mg/l, Max  mg/l, Max  mg/l, Max  mg/l, Max  mg/l, Max	Butachlor         μg/l, Max         125           Alachlor         μg/l, Max         20           Atrazine         μg/l, Max         2           Dieldrin         μg/l, Max         0.03           Ethion(Residue to be Determined as ethion and its oxygen analogue and expressed as ethion)         μg/l, Max         3           SICAL PARAMETER          Agreeable           Colour          Agreeable           pH value          6.5-8.5           Taste          Agreeable           Turbidity         NTU, Max         1           Total dissolved solids         mg/l, Max         500           XIC SUBSTANCES           Cadmium (as Cd)         mg/l, Max         0.003           Lead (as Pb)         mg/l, Max         0.01           Mercury (as Hg)         mg/l, Max         0.001           Total arsenic (as As)         mg/l, Max         0.01	Butachlor         μg/l, Max         125         <0.05	Butachlor



Page 4 of 5

KLPL-10010869B

Kalyani Laboratories

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

Test Report No

: KLPL/4/24/WATER/00681

Opinion & Interpretation:

Any unusual feature observed during determination

Customer information if any

Confirmation statement as per decision rule , if applicable

NIL

NIL

Analysed By

Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

orato BBSF

Authorised By

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

Page 5 of 5

KLPL-10010870B

Kalyani Laboratories

Batch No , Lot No

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

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

### **TEST REPORT**

Annexure 4

20-Apr-2024

EXP Date: NOT APPLICABLE

Completion On:

PLANT STP OUTLET, DATE-13.04.2024

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

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

: NOT APPLICABLE

Date of receipt 15-Apr-2024 Commenced On: 15-Apr-2024

Sample Description STP OUTLET WATER Form | Shape | Appearance : SEALED PET BOTTLE

Sample Identification : STP OUTLET WATER

Peceived Quantity 1 LITRE

MFG Date: NOT APPLICABLE Sample Collection Location, & Date :

Jample Collected By : MR. SUDHIR KUMAR BARIK

Sampling Procedure if Any : KLPL/QSP-07

SI	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
	Feacal Coilform	MPN/100ml	<1000	130	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	1622:1981, RA 2009
HE	EMICAL PARAMETER					
i	Total Suspended Solids.	mg/I, Max	100	90	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	APHA 24th Edition (2540 D):2023
	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
РН	SICAL PARAMETER					
	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

inion & Interpretation:

Any unusual feature observed during determination

Customer information if any

Confirmation statement as per decision rule, if applicable

Analysed By

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

1 Asuale

atori

: NIL

NIL

Authorised By

Renhanioyen

Dr. Rekha Nayak

For Kalyani Laboratories Pvt. Ltd.

Kalyani Laboratories

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



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

### **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:

Sample Description Form | Shape | Appearance

STP OUTLET WATER SEALED PET BOTTLE

Sample Identification

STP OUTLET WATER

Batch No , Lot No

NOT APPLICABLE

MFG Date: NOT APPLICABLE

EXP Date: NOT APPLICABLE

eceived Quantity

1 LITRE

Sample Collection Location, & Date :

Sample Collected By

: MR. SUDHIR KUMAR BARIK

Sampling Procedure if Any : KLPL/QSP-07

PLANT STP OUTLET, DATE-25.05.2024

Parameters	Unit	Requirement	Result	Standard Specification	Test Method
Feacal Coilform	MPN/100ml	<1000	140	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	1622:1981, RA 2009
MICAL PARAMETER		-			
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
Biochemical Oxygen Demand(For 3 days 27deg C)	mg/I, Max	30	7.0	Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,	APHA 24th Edition (5210 B):2023
SICAL PARAMETER					
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
	Feacal Coilform  MICAL PARAMETER  Total Suspended Solids.  Biochemical Oxygen Demand(For 3 days 27deg C)  SICAL PARAMETER	Feacal Coilform  MPN/100ml  MICAL PARAMETER  Total Suspended Solids.  Mg/l, Max  Biochemical Oxygen Demand(For 3 mg/l, Max days 27deg C)  SICAL PARAMETER	Feacal Coilform MPN/100ml <1000  MICAL PARAMETER  Total Suspended Solids. mg/l, Max 50  Biochemical Oxygen Demand(For 3 mg/l, Max 30 days 27deg C)  SICAL PARAMETER	Feacal Coilform MPN/100ml <1000 140  MICAL PARAMETER  Total Suspended Solids. mg/l, Max 50 . 32  Biochemical Oxygen Demand(For 3 mg/l, Max 30 7.0  SICAL PARAMETER	Feacal Coilform    MPN/100ml   <1000   140   Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,   MICAL PARAMETER    Total Suspended Solids.   mg/l, Max   50   32   Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,   Biochemical Oxygen Demand(For 3   mg/l, Max   30   7.0   Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,   CSICAL PARAMETER   Total Suspended Solids.   mg/l, Max   30   7.0   Requirement standard specification as per G.S.R. 1265(E), MOEF & CC ,   CSICAL PARAMETER   Total Suspended Solids.   Standard specification as per G.S.R. 1265(E), MOEF & CC ,   CSICAL PARAMETER   Total Suspended Solids.   Total Suspended Sol

Interpretation:

Any unusual feature observed during determination

NIL

Customer information if any

NIL

Confirmation statement as per decision rule , if applicable

Analysed By

Authorised By

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

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Dr. Rekha Nayak Julb 12024 For Kalvani Laboratories H

Page 1 of 1

KLPL-10012671B



### KALYANI LABORATORIES PVT.LTD.

Kalvani Laboratories

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



### **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 : NOT APPLICABLE

MFG Date: NOT APPLICABLE

EXP Date: NOT APPLICABLE

Batch No , Lot No 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

SI	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
	Feacal Coilform	MPN/100ml	<1000	140	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	1622:1981, RA 2009
CHE	MICAL PARAMETER					
i	Total Suspended Solids.	mg/l, Max	100	32	As per CTO	APHA 24th Edition (2540 D):2023
	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
РНҮ	SICAL PARAMETER					
	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

inion & Interpretation:

Any unusual feature observed during determination

NIL

Customer information if any

NIL

Confirmation statement as per decision rule, if applicable

Analysed By

For Kalyani Laboratories Pvt. Ltd.

Authorised By

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

Page 1 of 1

KLPL-10017502B

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



### **TEST REPORT**

: KLPL/7/24/WATER/01306 Test Report No

Issue Date 05-Aug-2024

Amendment No Amendment Date : --

Kalvani Laboratories

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

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

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

Completion On: 05-Aug-2024 Commenced On: 29-Jul-2024 ; 29-Jul-2024 Date of receipt

: STP OUTLET WATER Sample Description Form|Shape|Appearance : SEALED PET BOTTLE

: STP OUTLET WATER Sample Identification

EXP Date: NOT APPLICABLE MFG Date: NOT APPLICABLE : NOT APPLICABLE Batch No , Lot No

Sample Collection Location, & Date : Received Quantity : 1 LITRE PLANT STP OUTLET, DATE-27.07.2024 Sample Collected By : MR. SUDHIR KUMAR BARIK

Sampling Procedure if Any : KLPL/QSP-07

51	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
	Feacal Coilform	MPN/100ml	<1000	170	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	1622:1981, RA 2009
CHE	MICAL PARAMETER					•
i	Total Suspended Solids.	mg/l, Max	100	33.2	As per CTO	APHA 24th Edition (2540 D):2023
	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
PHY	SICAL PARAMETER				2	
	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

Vinion & Interpretation:

Any unusual feature observed during determination

NIL

Customer information if any

Confirmation statement as per decision rule, if applicable

Analysed By

) Asypha

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

······

Authorised By

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

ani Laboratories

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



### **TEST REPORT**

: KLPL/8/24/WATER/01450 **Test Report No** 

03-Sep-2024 Issue Date

Amendment No Amendment Date

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

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

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

Commenced On: 24-Aug-2024 02-Sep-2024 Completion On: Date of receipt : 24-Aug-2024

Sample Description : STP OUTLET WATER Form|Shape|Appearance : SEALED PET BOTTLE

: STP OUTLET WATER Sample Identification

MFG Date: NOT APPLICABLE EXP Date: NOT APPLICABLE Batch No , Lot No : NOT APPLICABLE Received Quantity Sample Collection Location, & Date : : 1 LITRE

: MR. SUDHIR KUMAR BARIK PLANT STP OUTLET, DATE-24.08.2024 Sample Collected By

Sampling Procedure if Any : KLPL/QSP-07

SI	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
0	Feacal Coilform	MPN/100ml	<1000	140	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	1622:1981, RA 2009
HE	MICAL PARAMETER					
i	Total Suspended Solids.	mg/l, Max	<100	34.4	As per CTO	APHA 24th Edition (2540 D):2023
ĺ	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
РНҮ	SICAL PARAMETER					
	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:

NIL Any unusual feature observed during determination NIL Customer information if any

Confirmation statement as per decision rule, if applicable

Analysed By

Mr. Digambar Arukha

For Kalyani Laboratories Pvt. Ltd.

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Authorised By

Dr. Debasis Biswal

For Kalyani Laboratories Pvt. Ltd.

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Page 1 of

Kalvani Laboratories

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



### **TEST REPORT**

: KLPL/9/24/WATER/01602 Test Report No

27-Sep-2024 Issue Date

Amendment No Amendment Date : --

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

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

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

Commenced On: 19-Sep-2024 Completion On: 27-Sep-2024 : 19-Sep-2024 Date of receipt

STP OUTLET WATER Sample Description SEALED PET BOTTLE Form | Shape | Appearance

STP OUTLET WATER Sample Identification

MFG Date: NOT APPLICABLE EXP Date: NOT APPLICABLE : NOT APPLICABLE Batch No , Lot No

Sample Collection Location, & Date : : 1 LITRE Received Quantity PLANT STP OUTLET, DATE-18.09.2024 ; MR. SUDHIR KUMAR BARIK ample Collected By

KLPL/QSP-07 Sampling Procedure if Any :

5/	Parameters	Unit	Requirement	Result	Standard Specification	Test Method
	Feacal Coilform	MPN/100ml	<1000	110	Standard specification as per G.S.R. 1265(E), MOEF & CC , 13th October 2017	1622:1981, RA 2009
HE	MICAL PARAMETER					•
i	Total Suspended Solids.	mg/l, Max	<100	35.2	As per CTO	APHA 24th Edition (2540 D):2023
+	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
PHY	SICAL PARAMETER					
100.710	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

mion & Interpretation:

Any unusual feature observed during determination

NII

Customer information if any

NIL

Confirmation statement as per decision rule , if applicable

Analysed By

Mr. Digambar Arukha

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For Kalyani Laboratories Pvt. Ltd.

rator BBSR

Authorised By

Dr. Debasis Biswal

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For Kalyani Laboratories Pvt. Ltd.

KLPL-10019780B

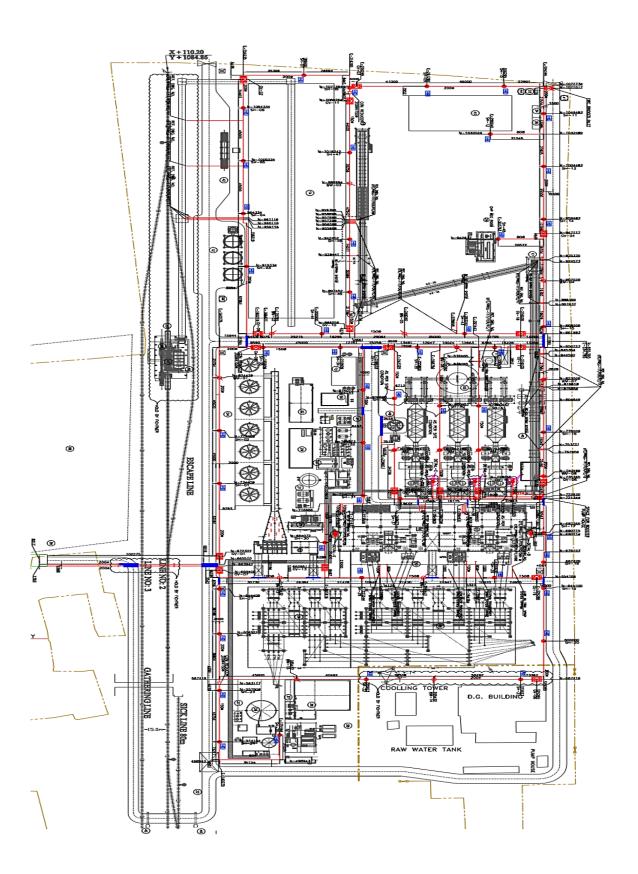








Rooftop Rainwater Harvesting Structures.



	LIST OF EQUIPMEN	ıT
ITEM	DESCRIPTION	Qty.
No.		
1	STG BUILDING - GROUND FLOOR-0.000M	1
	MEZZANINE FLOOR-5.000M	1
	OPERATING FLOOR-10.500M	11
2	BOILER	3
3	CHIMNEY	11
4	COOLING TOWER	11
5	CW PUMP HOUSE	1
6	RAW / FIRE WATER RESERVOIR	11
	WATER TREATMENT PLANT	11
	CPP SWITCH YARD	11
9	OPTCL SWITCHYARD	1
10_	EXISTING 132 KV SWITCH YARD FOR FACOR	1
11	HSD TANK FARM	1
12	FLY ASH SILO	3
1.3	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 1
23	WAGON TIPPLER COMPLEX	
24	CHP MCC ROOM	1 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	
31	SOFTNER PLANT	1 1
32	SOFT WATER TANK	
33	SECURITY OFFICE	2
34 35	TIME OFFICE	1
36	MEDICAL CENTER (FIRST AID) CLARIFIED WATER STORAGE TANK	1
37	CLARIFIED WATER STORAGE TANK  CLARIFIED WATER PUMP HOUSE	1
	EFFLUENT TREATMENT PLANT	1
<u>38</u>	RW/FW PUMP HOUSE	
40	RAILWAY CROSSING	
41	CUBICAL ROOM	1
42	WEIGH BRIDGE	<del>'</del>
43	CENTRAL STORE	1
44	TOILET	
45	ESP MCC ROOM	3
46	WAGON TIPPLER HOPPER	1
45	WAGON TIPPLER HOPPER	1
48	DG HOUSE	1
48	DG HOUSE	1
49	BED ASH SILO	1

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



#### MOCK DRILL ASSESSMENT REPORT



DOC. NO. FACOR-IMS-FSF-08

### **MOCK DRILL ON CHEMICAL LEAKAGE**

Α

Date	26.09	.2024	Location	DM Plant, FPL	
Drill Start	Гime	11:00 am	Drill End Time	11:45 am	
	6.1 =	·		,	

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.



### MOCK DRILL ASSESSMENT REPORT



DOC. NO. FACOR-IMS-FSF-08

- 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		



### **MOCK DRILL ASSESSMENT REPORT**



DOC. NO. FACOR-IMS-FSF-08

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	Babula	Immediate	Completed
	severity of the chemical leak.	Mohanty		
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**



### **MOCK DRILL ASSESSMENT REPORT**



DOC. NO. FACOR-IMS-FSF-08

### Name of the Observer:

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

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

Kalyani Laboratories

(a) +91 9861463904 M: kalyanilab@yahoo.co.in

### Annexure 8

Test Report No :	KLPL/4/24/ENVI	N/00137		Issue Date : 26	5-Apr-2024
Amendment No :	-			Amendment Date : -	
Reference :	PO NUMBER : FPPL/	3100006601,DATE	-8.11.2022		
Customer Name :	POWER PLANT OF	M/S FERRO ALL	OYS CORPORAT	ION LIMITED.	
Address :	D.P NAGAR, RANDI	A, BHADRAK-7561	35, ODISHA		
Date of receipt :	15-Apr-2024	Commenced On:	15-Apr-2024	Completion On:	16-Apr-2024
Sample Name :	NOISE				
Sample Condition :					
	MR. SUDHIR KUMAI	R BARIK			
Ref.To Sampling Procedure :	KLPL/NOISE/SOP-2	3			
Parameters	Unit	Standard Value	Results	Test Method	
Location & Date :	INSIDE CONTROL	ROOM, DATE-13	.04.2024		
Naise Level Tedl. Area (Day)	dB(A)	75	61.5	IS 9989:1981 (RA 2014):2014	
Noise Level Indl. Area (Day)	db(A)	/3			
oise Level Indl. Area (Night)	dB(A)	70	51.9	IS 9989:1981 (RA 2014):2014	
Location & Date :	NEAR ADMIN OF	FICE, DATE-13.0	4.2024		
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	1	1	
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 COMPRESS	OR 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 ESPID FA	N-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			Grato
	E decada as	130-000	1 September	Parallel and affective and a series	Coratorio
Noise Level Indl. Area (Day)	dB(A)	75	67.8	IS 9989:1981 (RA 2014):2014	17/ 10
Noise Level Indl. Area (Night)	dB(A)	70	54.9	IS 9989:1981 (RA 2014):2014	E BBSR
Location & Date :	NEAR ESP ID FA	N-1, DATE-13.04	1.2024		(P) (01)
Noise Level Indl. Area (Day)	dB(A)	75	65.2	IS 9989:1981 (RA 2014):2014	**
Holse Level Indi. Alea (Day)	55(4)				

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

Kalyani Laboratories

	KLPL/04/24/EN	/N/00137		Issue Date : 26-April-2024
Amendment No :	-	2100006601 DA	FE 0 11 2022	Amendment Date : -
Reference :	PO NUMBER :FPPL/		LLOYS CORPORAT	IONLIMITED
Customer Name :	D.P NAGAR, RAND			ION LIMITED.
Address :		A	15-Apr-2024	Completion On: 16-Apr-2024
THE CONTRACT OF STREET STREET	15-Apr-2024	Commenced Of	1. 15-Apr-2024	Completion on. 10 Apr 2024
Sample Name :	NOISE			
Sample Condition : Sample Collected By :	MR. SUDHIR KUMA	P BARIK		
Ref. To Sampling Procedure :	II MUSE CONTRACTOR CONTRACTOR INC.			
Parameters .	Unit	Standard Valu	ue . Results	Test Method
Noise Level Indl. Area (Night)	dB(A)	70	53.8	IS 9989:1981 (RA 2014):2014
Location & Date :	NEAR ESP ID FAI	N-2, DATE-13.04	4.2024	,
oise 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 GA	TE, 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, DAT	TE-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 COND	ENSER, DATE-1	3.04.2024	
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-1	3.04.2024	
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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PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

1/		123	TIME STATE		
Test Report No :	KLPL/8/24/ENVI	N/00196		Issue Date : 03-Sep-2024	
Amendment No :	-			Amendment Date : -	
Reference :	PO NUMBER : FPPL/	3100006601,0	DATE-8:11.2022		
Customer Name :	POWER PLANT OF	M/S FERRO	ALLOYS CORPORAT	ION LIMITED.	
Address :	D.P NAGAR, RANDIA	A, 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	R BARIK			
Ref.To Sampling Procedure :	KLPL/NOISE/SOP-2	3			
Parameters	Unit	Standard	Value Results	Test Method	
Location & Date :	INSIDE CONTROL	ROOM, DAT	E-24.08.2024		
Noise Level Indl. Area (Day)	dB(A)	75	60.2	IS 9989:1981 (RA 2014):2014	
bise Level Indl. Area (Night)	dB(A)	70	49.6	IS 9989:1981 (RA 2014):2014	
Location & Date :	NEAR ADMIN OF	FICE, 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 COMPRESS	OR HOUSE, L	DATE-24.08.2024		8
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 ESPID FA	N-3, DATE-2	4.08.2024		
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		Societo	Cer 1
Noise Level Indl. Area (Day)	dB(A)	75	62.7	IS 9989:1981 (RA 2014):2014 3 8851	M S
Noise Level Indl. Area (Night)	dB(A)	70	50.1	IS 9989:1981 (RA 2014):2014	15
Location & Date :	NEAR ESP ID FA	N-1, DATE-2	4.08.2024	-	
Noise Level Indl. Area (Day)	dB(A)	75	68.1	IS 9989:1981 (RA 2014):2014	
	288			0	

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

### **TEST REPORT**

Issue Date : 03-Sep-2024 : KLPL/8/24/ENVN/00196 **Test Report No** Amendment Date Amendment No

: PO NUMBER :FPPL/3100006601,DATE-8.11.2022 Reference : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED. Customer Name

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

: 26-Aug-2024

Address Commenced On: 26-Aug-2024 Completion On:

: NOISE Sample Name

Date of receipt

Sample Condition :	**				
Sumple concerce by		DHIR KUMA			
Ref.To Sampling Procedure :	KLPL/NO	AND DESCRIPTION OF THE PERSON			Task Madhad
Parameters		Unit	Standard Va		Test Method IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)		dB(A)	70	54.8	15 9909:1901 (NA 2014).2014
Location & Date :	NEAR E	SP ID FAM	1-2, DATE-24.0	08.2024	
bise 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 E	TP, 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 GA	TE, DATE-24.0	8.2024	
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, DAT	E-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 .	SECONDR	CRUSHER, DA	ATE-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 COND	ENSER, 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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26-Aug-2024

KLPL-

# <u>୭୦୪୭୧୭୧୭୧୧୧୧୭୧୧୧୧୭</u>୧୧

## 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**

: 05-Aug-2024 Issue Date KLPL/7/24/ENVN/00196 Test Report No Amendment Date Amendment No : PO NUMBER :FPPL/3100006601,DATE-8.11.2022 Reference : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED. Customer Name : D.P NAGAR, RANDIA, BHADRAK-756135, ODISHA Address 05-Aug-2024 Completion On: Commenced On: 29-Jul-2024 : 29-Jul-2024 Date of receipt NOISE Sample Name Sample Condition MR. SUDHIR KUMAR BARIK Sample Collected By Ref. To Sampling Procedure : KLPL/NOISE/SOP-23 Test Method Standard Value Results Unit Parameters : INSIDE CONTROL ROOM, DATE-27.07.2024 Location & Date IS 9989:1981 (RA 2014):2014 75 dB(A) Noise Level Indl. Area (Day) IS 9989:1981 (RA 2014):2014 48.9 70 dB(A) ise Level Indl. Area (Night) NEAR ADMIN OFFICE, DATE-27.07.2024 Location & Date IS 9989:1981 (RA 2014):2014 59.3 dB(A) 75 Noise Level Indl. Area (Day) IS 9989:1981 (RA 2014):2014 51.8 70 dB(A) Noise Level Indl. Area (Night) : BOILER-1, DATE-27.07.2024 Location & Date IS 9989:1981 (RA 2014):2014 69.9 75 dB(A) Noise Level Indl. Area (Day) IS 9989:1981 (RA 2014):2014 60.9 70 dB(A) Noise Level Indl. Area (Night) : BOILER-2, DATE-27.07.2024 Location & Date IS 9989:1981 (RA 2014):2014 75 71.6 dB(A) Noise Level Indl. Area (Day) IS 9989:1981 (RA 2014):2014 60.5 dB(A) Noise Level Indl. Area (Night) BOILER-3, DATE-27.07.2024 Location & Date IS 9989:1981 (RA 2014):2014 70.4 dB(A) Noise Level Indl. Area (Day) IS 9989:1981 (RA 2014):2014 61.9 dB(A) Noise Level Indl. Area (Night) : NEAR COMPRESSOR HOUSE, DATE-27.07.2024 Location & Date IS 9989:1981 (RA 2014):2014 67.9 75 Noise Level Indl. Area (Day) dB(A) IS 9989:1981 (RA 2014):2014 48.2 70 dB(A) Noise Level Indl. Area (Night) : NEAR ESP ID FAN-3, DATE-27.07.2024 Location & Date IS 9989:1981 (RA 2014):2014 69.4 dB(A) Noise Level Indl. Area (Day) IS 9989:1981 (RA 2014):2014 70 dB(A) Noise Level Indl. Area (Night) : DM PLANT, DATE-27.07.2024 Location & Date IS 9989:1981 (RA 2014):2014 61.8 75 Noise Level Indl. Area (Day) IS 9989:1981 (RA 2014):2014 49.3 70 dB(A) Noise Level Indl. Area (Night) : NEAR ESP ID FAN-1, DATE-27.07.2024 Location & Date BBS IS 9989:1981 (RA 2014):2014 67.2 dB(A) Noise Level Indl. Area (Day)

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

### **TEST REPORT**

: KLPL/7/24/ENVN/00196 Test Report No

Issue Date

: 05-Aug-2024

Amendment No

Kalyani Laboratories

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 : 29-Jul-2024

Commenced On: 29-Jul-2024

Completion On:

05-Aug-2024

Date of receipt Sample Name

: NOISE

Sample Condition Sample Collected By

; MR. SUDHIR KUMAR BARIK

,	MK. SUDITIK KUMA							
Ref.To Sampling Procedure :	KLPL/NOISE/SOP-							
Parameters	Unit	Standard Value	Results	Test Method				
Noise Level Indl. Area (Night)	dB(A)	70	53.8	IS 9989:1981 (RA 2014):2014				
ocation & Date :	NEAR ESP ID FA	EAR 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				
ocation & Date :	NEAR ETP, DATE	-27.07.2024	V.					
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 GA	TE, DATE-27.07.20	024					
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-2	7.07.2024					
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 SECONDR	Y 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 COND	DENSER, 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				



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

: 29-Jun-2024

### TEST REPORT

Issue Date : KLPL/6/24/ENVN/00199

**Test Report No** Amendment Date Amendment No

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

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

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

29-Jun-2024 Completion On: Address Commenced On: 28-Jun-2024 28-Jun-2024 Date of receipt

: NOISE Sample Name

Kalyani Laboratories

ef.To Sampling Procedure : KLPL/	NOISE/SOP-2.	3	ue Results	Test Method
	Unit	Stallual u val		
ocation & Date : INSI	DE CONTROL	ROOM, DATE-2	27.06.2024	
oise Level Indl. Area (Day)	dB(A)	75	6005	IS 9989:1981 (RA 2014):2014
oise Level Indl. Area (Night)	dB(A)	70	48.9	IS 9989:1981 (RA 2014):2014
	R ADMIN O	FFICE, DATE-27	7.06.2024	
	dB(A)	75	61.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)	dB(A)	70	52.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)		27.06.2024		
Location & Date : BOIL	LER-1, DATE		67.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)	dB(A)	75	57.9	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	70	37.3	
Location & Date : BOI	LER-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
		-27.06.2024		
Location & Date : BO	ILER-3, DATE	-27.06.2024	Page .	IS 9989:1981 (RA 2014):2014
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	
	AR COMPRES	SOR HOUSE, D	ATE-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
		TAN 2 DATE 3	7 06 2024	
Location & Date : NE	AR ESPID	FAN-3, DATE-2	7.00.2024	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)	dB(A)	75	66.4	
Noise Level Indl. Area (Night)	dB(A)	70	54.6	IS 9989:1981 (RA 2014):2014
We are the second of the secon	M DI ANT DA	TE-27.06.2024		
Location & Date : Di	W PLANT, DA			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)	dB(A)	75	66.8	IS 9989:1981 (RA 2014):2014 00(810/10)
Noise Level Indl. Area (Night)	dB(A)	70	52	
	EAR ESP II	FAN-1, DATE-	27.06.2024	IS 9989:1981 (RA 2014):2014 0 BBSR
Location & Date : N				IS 9989:1981 (RA 2014):2014

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

### **TEST REPORT**

: 29-Jun-2024 Issue Date : KLPL/6/24/ENVN/00199 **Test Report No** 

Amendment Date : -Amendment No

: PO NUMBER :FPPL/3100006601,DATE-8.11.2022 Reference : POWER PLANT OF M/S FERRO ALLOYS CORPORATION LIMITED.

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

Address Completion On: 29-Jun-2024 Commenced On: 28-Jun-2024 28-Jun-2024 Date of receipt

NOISE Sample Name

Sample Condition

: MR. SUDHIR KUMAR BARIK Sample Collected By

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

Ref. To Sampling Procedure :	KLPL/NOISE/SOP-2	23		- 1111
Parameters	Unit	Standard Va	lue Results	Test Method
Noise Level Indl. Area (Night)	dB(A)	70	51.8	IS 9989:1981 (RA 2014):2014
Location & Date :	NEAR ESP ID FAI	V-2, DATE-27.0	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	7	
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 GA	TE, DATE-27.0	6.2024	
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, DAT	TE-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 SECONDR	Y CRUSHER, D.	ATE-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
	NEAR STG CON	DENSER, 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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## PLOT NO-78/944, MILLENIUM CITY PAHAL, BHUBANESWAR-752101, ODISHA

: 04-Jun-2024

Issue Date

### TEST REPORT

LPL/5/24/ENVN	00158	A	Issue Date : 04-Jun-2024
			interiorite Date .
NUMBER :FPPL/31	.00006601,DA	TE-8.11.2022	TATED
WER PLANT OF	1/S FERRO A	LLOYS CORPORATIO	ON LIMITED.
PNAGAR RANDIA	BHADRAK-75	6135, ODISHA	
	Commenced O	n: 27-May-2024	Completion On: 27-May-2024
The state of the s			
OTSE			
- CURUTE KLIMAR	BADIV		
LPL/NOISE/SOP-23	CI - Java V	alua Results	Test Method
			10 Teach and state of the second state of the
NSIDE CONTROL			IS 9989:1981 (RA 2014):2014
dB(A)	75		IS 9989:1981 (RA 2014):2014
dB(A)	70	52.9	15 9963:1361 (00 2017).201
NEAR ADMIN OF	FICE, DATE-2	25.05.2024	
dB(A)	75	61.3	IS 9989:1981 (RA 2014):2014
dB(A)	70	51.8	IS 9989:1981 (RA 2014):2014
	25.05.2024		
BUILER-I, DATE-	23,03,202-1		IS 9989:1981 (RA 2014):2014
dB(A)	75	Name of the second	IS 9989:1981 (RA 2014):2014
dB(A)	70	58.9	15 5305.1301 (10. 422.7)
BOILER-2, DATE-	25.05.2024		
dB(A)	75	72.6	IS 9989:1981 (RA 2014):2014
dB(A)	70	61.5	IS 9989:1981 (RA 2014):2014
BOTIER-3. DATE	-25.05.2024		
		73.4	IS 9989:1981 (RA 2014):2014
dB(A)			IS 9989:1981 (RA 2014):2014
dB(A)	10000		
NEAR COMPRES	SOR HOUSE,	DATE-25.05.2024	
dB(A)	75	66.9	IS 9989:1981 (RA 2014):2014
dB(A)	70	57.2	1S 9989:1981 (RA 2014):2014
NEAR ESPID	AN-3, DATE-	-25.05.2024	
		Control Control	IS 9989:1981 (RA 2014):2014
dB(A)	75		IS 9989:1981 (RA 2014):2014
dB(A)	70	56.6	10 3300
DM PLANT, DAT	E-25.05.202	4	
dB(A)	75	64.8	IS 9989:1981 (RA 2014):2014
dB(A)	70	53.9	IS 9989:1981 (RA 2014):2014
1	FAN-1, DATE	-25.05.2024	1 200 ×
dB(A)	75	63.2	IS 9989:1981 (RA 2014):2014 E BBSR
1			17/2 /.0/
	DNUMBER: FPPL/31 DWER PLANT OF N P NAGAR, RANDIA, 7-May-2024  OISE  R. SUDHIR KUMAR LPL/NOISE/SOP-23  Unit NSIDE CONTROL    dB(A)   dB(A)	DWER PLANT OF M/S FERRO A P NAGAR, RANDIA, BHADRAK-75 7-May-2024 Commenced Co Toise  R. SUDHIR KUMAR BARIK LPL/NOISE/SOP-23  **Unit*** Standard V.** NSIDE CONTROL ROOM, DATE    dB(A)	NUMBER : FPPL/3100006601, DATE-8.11.2022   DWER PLANT OF M/S FERRO ALLOYS CORPORATION

Kalyani Laboratories

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

Ann

### **TEST REPORT**

: 04-Jun-2024 Issue Date Test Report No : KLPL/05/24/ENVN/00158 Amendment Date

Amendment No : PO NUMBER :FPPL/3100006601,DATE-8.11.2022 Reference

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

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

Completion On: 27-May-2024 Commenced On: 27-May-2024 : 27-May-2024 Date of receipt

NOISE Sample Name

Sample Condition

Sample Condition .				
Sample Collected By :	MR. SUDHIR KUMA	AR BARIK		
Ref. To Sampling Procedure :	KLPL/NOISE/SOP-	23		
Parameters	Unit	Standard V	'alue Results	
Noise Level Indl. Area (Night)	dB(A)	70	52.8	IS 9989:1981 (RA 2014):2014
Location & Date :	NEAR ESP ID FAI	N-2, DATE-25	.05.2024	4
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 GA	TE, 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, DA	TE-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 SECONDR	Y CRUSHER, L	ATE-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 CONL	DENSER, 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	E-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



## 

Kalyani Laboratories

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

(S) +91 9861463904 M: kalyanilab@yahoo.co.in

Noise Level Indl. Area (Day	)	dB(A)	75	67.4	IS 9989:1981 (RA 2014):2014
Location & Date	: NEAR	ESP ID	FAN-1, DATE-18.	09.2024	BBSR V
Noise Level Indl. Area (Nigh	it)	dB(A)	70	52.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day	)	dB(A)	75	61.6	IS 9989:1981 (RA 2014):2014
ocation & Date	: DM PL	ANT, DAT	E-18.09.2024		
Noise Level Indl. Area (Nigh	it)	dB(A)	70	60.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day	)	dB(A)	75	71.7	IS 9989:1981 (RA 2014):2014
ocation & Date		AVERNOSINATO III	FAN-3, DATE-18.0		TE 0000:1001 (DA 2014):2014
Noise Level Indl. Area (Nigh		dB(A)	70	50.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day		dB(A)	75	70.4	IS 9989:1981 (RA 2014):2014
Location & Date	: NEAR	COMPRES	SOR HOUSE, DAT	TE-18.09.2024	1
oise Level Indl. Area (Nigh	t)	dB(A)	70	62.7	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day		dB(A)	75	72.6	IS 9989:1981 (RA 2014):2014
Location & Date	: BOILE	R-3, DATI	E-18.09.2024		
Noise Level Indl. Area (Nigh	t)	dB(A)	70	61.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day		dB(A)	75	70.6	IS 9989:1981 (RA 2014):2014
Location & Date			E-18.09.2024	leo c	In 0000 1001 (DA 2014) 2014
	- 1	30 - 120 		1	
Noise Level Indl. Area (Nigh		dB(A)	70	60.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day		dB(A)	75	70.7	IS 9989:1981 (RA 2014):2014
ocation & Date	: BOILE	R-1, DATI	E-18.09.2024	, k	1
Noise Level Indl. Area (Nigh	t)	dB(A)	70	51.8	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)		dB(A)	75	61.6	IS 9989:1981 (RA 2014):2014
Location & Date	NEAR		OFFICE, DATE-18		1
	1				
ise Level Indl. Area (Nigh		dB(A)	70	48.5	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)	1	dB(A)	75	59.4	IS 9989:1981 (RA 2014):2014
Location & Date	: INSID		OL ROOM, DATE-1		
Parameters	, KLPL/IV	Unit	Standard Val	ue Results	Test Method
Ref.To Sampling Procedure					
Sample Condition Sample Collected By	: : MR. SU	DHID KIIM	AR BARIK		
Sample Name	NOISE				
Date of receipt	: 19-Sep		Commenced On	: 19-Sep-2024	Completion On: 20-Sep-2024
Address			DIA, BHADRAK-756		C   -11 O 20 Co 2024
Customer Name				LOYS CORPORAT	ION LIMITED.
Reference			L/3100006601,DAT		
mendment No	<i>i</i> -				Amendment Date : -
Test Report No	: KLPL/	9/24/EN	VN/00290		Issue Date : 20-Sep-2024

Kalyani Laboratories

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

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### TEST REPORT

: KLPL/9/24/ENVN/00290 Test Report No

Issue Date

: 20-Sep-2024

Amendment No

Amendment Date

PO NUMBER :FPPL/3100006601,DATE-8.11.2022

Reference

Customer Name

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

0.000.0

20-Sep-2024

Address

Date of receipt

19-Sep-2024

Commenced On: 19-Sep-2024

Completion On:

Sample Name

: NOISE

ample Condition :	R. SUDHIR KUMAR	BARIK		
ample Collected By : MF	C. SUDDIK KUMAK	)		
ef.To Sampling Procedure : KL	PL/NOISE/SUP-23	Standard Value	Results	Test Method
arameters	Unit	Standard	55.3	IS 9989:1981 (RA 2014):2014
oise Level Indl. Area (Night)	dB(A)	70		
	EAD ESD ID FAN	-2, DATE-18.09.2	024	
ocation & Date : N	EAR ESP ID PAN		The state of the s	IS 9989:1981 (RA 2014):2014
ise Level Indl. Area (Day)	dB(A)	75	69.4	
	10/4)	70	58.0	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	7.0		
tion & Date : A	IEAR ETP, DATE-	18.09.2024		
ocation & Date : N	TEAN ETT,		58.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)	dB(A)	75	30.0	2044):2014
	dB(A)	70	49.4	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	257 8	2.8	1	
Location & Date : I	NEAR MAIN GA	TE, DATE-18.09.2	024	
Location & Date			55.3	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)	dB(A)	75		DA 2014):2014
	dB(A)	70	50.6	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)				
Location & Date :	NEAR PRIMARY	CRUSHER, DATE-	18.09.2024	
LUCULION & BUILD				
	1 10 1000		71.2	IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Day)	dB(A)	75		
	1 10 1000			IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)	dB(A)	75	62.5	
Noise Level Indl. Area (Night)	dB(A)	75	62.5	15 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :	dB(A) dB(A)  NEAR SECONDR	75	62.5	
Noise Level Indl. Area (Night)	dB(A)	75 70 Y CRUSHER, DATE	71.2  62.5  E-18.09.2024  67.8	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Roise Level Indl. Area (Day)	dB(A) dB(A)  NEAR SECONDR	75 70 Y CRUSHER, DATE	71.2  62.5  E-18.09.2024	15 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)	dB(A)   dB(A)   MEAR SECONDR   dB(A)   dB(A)	75 70 75 75 76	71.2   62.5   E-18.09.2024   67.8   63.1	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)	dB(A)   dB(A)   MEAR SECONDR   dB(A)   dB(A)	75 70 Y CRUSHER, DAT	71.2   62.5   E-18.09.2024   67.8   63.1	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)  Location & Date :	dB(A)   dB(A)   MEAR SECONDR   dB(A)   dB(A)   MEAR STG CON	75 70 75 75 76	71.2   62.5   E-18.09.2024   67.8   63.1	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Roise Level Indl. Area (Day)  Noise Level Indl. Area (Night)	dB(A)   dB(A)   MEAR SECONDR   dB(A)   dB(A)	75	71.2   62.5   E-18.09.2024   67.8   63.1   3.09.2024   71.4	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)	dB(A)   dB(A)   MEAR SECONDR   dB(A)   dB(A)   MEAR STG CON   dB(A)   dB(A)	75   70   75   75   70   70   DENSER, DATE-18	71.2   62.5   E-18.09.2024   67.8   63.1   3.09.2024	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)	dB(A)   dB(A)   MEAR SECONDR   dB(A)   dB(A)   MEAR STG CONDR   dB(A)   dB(A)	75	71.2   62.5   67.8   63.1   63.09.2024   71.4   65.0	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)	dB(A)   dB(A)   MEAR SECONDR   dB(A)   dB(A)   MEAR STG CONDR   dB(A)   dB(A)	75	71.2   62.5   67.8   63.1   63.09.2024   71.4   65.0	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)  Location & Date :	dB(A)   MEAR WAGON	75	71.2   62.5   67.8   63.1   63.09.2024   71.4   65.0	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014
Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)  Location & Date :  Noise Level Indl. Area (Day)  Noise Level Indl. Area (Night)	dB(A)   dB(A)   MEAR SECONDR   dB(A)   dB(A)   MEAR STG CONDR   dB(A)   dB(A)	75	71.2   62.5   67.8   63.1   3.09.2024   71.4   65.0   8.09.2024	IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014  IS 9989:1981 (RA 2014):2014



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KALYANI LABORATORIES PVT.LTD.

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

### **TEST REPORT**

Annexure 9

Test Report No

Kalyani Laboratories

: 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

Sample Condition

AMBIENT AIR QUALITY MONITORING GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK

Sample Collected By ef.To Sampling Procedure:

MR. SUDHIR KUMAR BARIK

**Parameters** 

KLPL/SOP/AIR-20

Standard Reference

Test Method

Unit Requirement Results Location & Date : ADMIN BUILDING, DATE: -13.04.2024 Requirement is as per KLPL/SOP/AIR-07, Issue No.01: 2019 <1.0 µg/m³ Benzene (C6 H6) standard specification NAAQS:2009 Sulphur Dioxide 80 9.73 IS 5182(PART-2): 2001 иа/т3 Requirement is as per standard specification NAAQS:2009 IS 5182 (PART 6 ):2006 Nitrogen Dioxide µg/m³ 80 16.31 Requirement is as per standard specification NAAQS: 2009 Particulate Matter (PM10) µg/m³ 100 77.69 Requirement is as per standard specification NAAQS:2009 Particulate Matter (PM2.5) µg/m³ 60 34.05 Requirement is as per KLPL/SOP/AIR-02 Issue No.01:2017 standard specification NAAQS:2009 Carbon Monoxide (CO) (01 Hrs.) 0.78 KLPL/SOP/AIR-19:2019 mg/m3 04 Requirement is as per standard specification NAAQS:2009 vii Ozone (O3) (01 Hrs.) KLPL/SOP/AIR-19:2019 µg/m³ 180 8.5 Requirement is as per standard specification NAAQS:2009 KLPL/SOP/AIR-10, Issue No.01:2017 viii Lead ( as Pb) µg/m³ 1.0 < 0.02 Requirement is as per standard specification NAAQS:2009 Ammonia (NH3) µg/m³ 400 <4.0 Requirement is as per KLPL/SOP/AIR-05,Issue No.01: 2017 ix standard specification NAAQS:2009 Benza (a) Pyrene (BaP) µg/m³ < 0.1 KLPL/SOP/AIR-07, Issue No.01: 2019 01 Requirement is as per standard specification NAAQS:2009 KLPL/SOP/AIR-10, Issue No.01: 2017 µg/m³ 06 Arsenic (as As) < 1.0 Requirement is as per standard specification NAAQS:2009 µg/m³ KLPL/SOP/AIR-10, Issue No.01:2017 xii Nickel (Ni) 20 < 4.0 Requirement is as per standard specification NAAQS:2009 Location & Date : NEAR MAIN GATE, DATE: -13.04.2024 Sulphur Dioxide IS 5182(PART-2): 2001 µg/m³ 80 11.34 Requirement is as per standard specification NAAQS:2009 IS 5182 (PART 6 ) :2006 Nitrogen Dioxide µg/m³ 80 17.18 Requirement is as per BBSR standard specification NAAQS:2009 Particulate Matter (PM10) µg/m³ 100 82.91 Requirement is as per IS 5182(PART-23):2006 standard specification NAAQS:2009 Particulate Matter (PM2.5) 60 38.47 Requirement is as per KLPL/SOP/AIR-02, Issue No.01:2017 iv µg/m³ standard specification NAAQS:2009 KLPL/SOP/AIR-07, Issue No.01: 2019 Benzene (C6 H6) µg/m³ 05 Requirement is as per <1.0 standard specification

NAAQS:2009

Kalyani Laboratories

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

Test Report No	:	KLPL/4/24/ENVN/00135
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Pá	arameters	Unit	Requirement	Results	Standard Reference	Test Method
i	Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.67	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
/ii	Ozone (O3) (01 Hrs.)	µg/m³	180	7.2	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
/iii	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
×	Ammonia (NH3)	µg/m³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05,Issue No.01: 2017
	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
ci	Arsenic ( as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
3	Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
L	ocation & Date : NEAF	WAGAN	GATE, DATE:	13.04.202	24	
	Sulphur Dioxide	μg/m³	80	8.76	Requirement is as per standard specification NAAOS:2009	IS 5182(PART-2) : 2001
i	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
/ii	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
хi	Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
хi	i Benzene (C6 H6)	μg/m³	05	<1.0	Requirement is as per standard specification NAAOS: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

Standard Reference

Sample Name

Completion On:

Sample Condition

AMBIENT AIR QUALITY MONITORING : GASEOUS SAMPLE ABSORBING SOLUTIONS REFRIGERATED/FILTER PAPER SEALED IN ZIP LOCK POLYTHENE BAG

Sample Collected By

: MR. SUDHIR KUMAR BARIK

Parameters

Benzene (C6 H6)

Requirement Results · ADMIN BUILDING DATE: 25 OF 2024

Test Method

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
kii 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 : NEAI	R MAIN G	ATE, DATE:	-25.05.2024		
Sulphur Dioxide	µg/m³	80	10.08	Requirement is as per standard specification	IS 5182(PART-2) : 2001

standard specification NAAQS:2009 Nitrogen Dioxide µg/m³ 80 17.83 Requirement is as per IS 5182 (PART 6 ):2006 standard specification NAAQS:2009 Particulate Matter (PM10) µg/т³ 100 71.66 Requirement is as per IS 5182(PART-23):2006 standard specification NAAQS:2009 Particulate Matter (PM2.5) Requirement is as per µg/m³ 60 29.66 KLPL/SOP/AIR-02,Issue No.01 standard specification

<1.0

µg/m³

05

NAAQS:2009 Requirement is as per KLPL/SOP/AIR-07, Issue No.01: 2019 standard specification NAAQS:2009

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Kalyani Laboratories

xii Benzene (C6 H6)

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

arameters	Unit	Requirement	Results	Standard Reference	Test Method
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.67	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
ii Ozone (O3) (01 Hrs.)	µg/m³	180	7.3	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
iii 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
Ammonia (NH3)	µg/m³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05,Issue No.01: 2017
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
i Arsenic ( as As)	μg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
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 : NEAL	R WAGAN	GATE, DATE:	- 25.05.20	24	
Sulphur Dioxide	µg/m³	80	11.25	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
i Nitrogen Dioxide	µg/m³	80	18.45	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6 ):2006
ii 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
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
ii 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
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
× 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	KLPL/SOP/AIR-10,Issue No.01:2017



<1.0

µg/m³

NAAQS:2009

Requirement is as per

standard specification
NAAOS:2009

KLPL/SOP/AIR-07,Issue No.01: 2019



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/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

Sample Name

Commenced On: 28-Jun-2024

Completion On:

29-Jun-2024

Sample Condition

Sample Collected By

: AMBIENT AIR QUALITY MONITORING

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

: MR. SUDHIR KUMAR BARIK

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

Parameters	Unit	Requirement	t Results	Standard Reference	Test Method
Location & Date : ADMI	N BUILDI	NG,DATE:-27.	06.2024	Section of the public section of the	
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 NAAOS: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 NAAOS: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 NAAOS: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 NAAOS: 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 NAAOS: 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 : NEAF	R MAIN G	ATE,DATE:-27	.06.2024	1	
Sulphur Dioxide	µg/m³	80	10.30	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2): 2001
i Nitrogen Dioxide	µg/m³	80	15.38	Requirement is as per standard specification NAAOS:2009	IS 5182 (PART 6 ) :2006
ii Particulate Matter (PM10)	µg/m³	100	71.25	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
Particulate Matter (PM2.5)	µg/m³	60	30.31	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02 Issue No.04: 2017
Benzene (C6 H6)	µg/m³	05	<1.0		KLPL/SDP/AIR-07 Issue No.01: 2019

Kalyani Laboratories

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

Test Report No

KLPL/6/24/ENVN/00196

Pa	arameters	Unit	Requirement	Results	Standard Reference	Test Method
/i	Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.72	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
/ii	Ozone (O3) (01 Hrs.)	µg/m³	180	6.4	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
/iii	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
X	Ammonia (NH3)	µg/m³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05,Issue No.01: 2017
	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
i	Arsenic ( as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
	Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
Lo	ocation & Date : NEAI	WAGAN	GATE,DATE:-	27.06.202	4	
	Sulphur Dioxide	µg/m³	80	12.15	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2) : 2001
	Nitrogen Dioxide	µg/m³	80	19.10	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6 ) :2006
ii	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
	Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.82	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
i	Ozone (03) (01 Hrs.)	µg/m³	180	7.7	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
ii	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
III	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
	Arsenic ( as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
χi	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 NAAOS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019



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## KALYANI LABORATORIES PVT.LTD.

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### **TEST REPORT**

**Test Report No** 

Kalvani Laboratories

: 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:

Completion On:

05-Aug-2024

29-Jul-2024

KLPL/SOP/AIR-10,Issue No.01:2017

IS 5182(PART-2): 2001

Sample Name

xii Nickel (Ni)

: AMBIENT AIR QUALITY MONITORING

Sample Condition

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

: MR. SUDHIR KUMAR BARIK Sample Collected By KLPL/SOP/AIR-20 f.To Sampling Procedure: Test Method Standard Reference Requirement Results Unit **Parameters** : ADMIN BUILDING, DATE: -27.07.2024 Location & Date Requirement is as per standard KLPL/SOP/AIR-07,Issue No.01: 2019 specification NAAQS:2009 <1.0 µg/m³ Benzene (C6 H6) IS 5182(PART-2): 2001 Requirement is as per 8.14 80 µg/m³ Sulphur Dioxide standard specification NAAQS:2009 IS 5182 (PART 6 ):2006 Requirement is as per 13.19 80 µg/m³ standard specification Nitrogen Dioxide NAAQS:2009 IS 5182(PART-23):2006 Requirement is as per 70.55 100 ид/т3 Particulate Matter (PM10) standard specification NAAQS:2009 KLPL/SOP/AIR-02, Issue No.01:2017 Requirement is as per 29.92 60 µg/m³ Particulate Matter (PM2.5) standard specification NAAQS:2009 KLPL/SOP/AIR-19:2019 Requirement is as per 0.71 vi Carbon Monoxide (CO) (01 Hrs.) mg/m³ standard specification NAAQS:2009 KLPL/SOP/AIR-19:2019 Requirement is as per 5.3 µg/m³ 180 vii Ozone (O3) (01 Hrs.) standard specification NAAQS:2009 KLPL/SOP/AIR-10, Issue No.01:2017 Requirement is as per < 0.02 1.0 μg/m³ viii Lead ( as Pb) standard specification NAAQS:2009 KLPL/SOP/AIR-05,Issue No.01: 2017 Requirement is as per <4.0 400 µg/m³ ix Ammonia (NH3) standard specification NAAQS:2009 KLPL/SOP/AIR-07,Issue No.01: 2019 Requirement is as per < 0.1 01 µg/m³ Benza (a) Pyrene (BaP) standard specification NAAQS:2009 KLPL/SOP/AIR-10,Issue No.01: 2017 Requirement is as per <1.0 06  $\mu g/m^3$ xi Arsenic (as As)

Location & Date	:	NEAR MAIN GATE, DATE: -27.07.2024

µg/m³

					1 - 1 - 1 - ne nor	IS 5182(PARI-2) : 2001
	Sulphur Dioxide	µg/m³	80	9.07	Requirement is as per standard specification NAAQS:2009	Calon
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	1S 5182(PART-23) :2006 BBSR
V	Particulate Matter (PM2.5)	µg/m³	60	30.31	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue NOO1 2017
,	Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019

<4.0

20

standard specification NAAQS:2009

Requirement is as per

standard specification NAAQS:2009

Requirement is as per

## 

## KALYANI LABORATORIES PVT.LTD.

Kalyani Laboratories

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

Test Report No

KLPL/7/24/ENVN/00195

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Parameters	Unit	Requiremen	nt Results	Standard Reference	Test Method
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.65	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
ii Ozone (O3) (01 Hrs.)	µg/m³	180	3.2	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
iii 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
Ammonia (NH3)	μg/m³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05,Issue No.01: 2017
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
i Arsenic ( as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
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 : NEA	R WAGAN	GATE, DATE:	- 27.07.202		
Sulphur Dioxide	µg/m³	80	8.17	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2): 2001
Nitrogen Dioxide	µg/m³	80	14.05	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6 ) :2006
ii 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
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.69	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
oi Ozone (O3) (01 Hrs.)	µg/m³	180	6.5	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
ii 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
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
Arsenic ( as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
<sup>xi</sup> 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 NAAOS:2009	KLPL/SOP/AIR-07,Issue No.01: 2019



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### **TEST REPORT**

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

: 03-Sep-2024 Issue Date

Amendment No Amendment Date

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

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

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

28-Aug-2024 Completion On: Commenced On: 24-Aug-2024 : 24-Aug-2024 Date of receipt

: AMBIENT AIR QUALITY MONITORING Sample Name

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

: MR. SUDHIR KUMAR BARIK Sample Collected By

ef.To Sampling Procedure: KLPL/ Parameters	Unit	Requirement	Results	Standard Reference	Test Method
	BUILDIN	G,DATE:-24.0			SECTION CONTRACTOR AND ADMINISTRATION OF THE PROPERTY OF THE P
ocation a pare . April				Requirement is as per standard	KLPL/SOP/AIR-07,Issue No.01: 2019
Benzene (C6 H6)	µg/m³	05	<1.0	specification NAAQS:2009	
Sulphur Dioxide	μg/m³	80	8.71	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-2): 2001
ii Nitrogen Dioxide	µg/m³	80	13.87	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6 ) :2006
v Particulate Matter (PM10)	µg/m³	100	62.16	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
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
ri 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 : NEA	R MAIN	SATE, 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/AIPPO: Issue No.01:2017
v Benzene (C6 H6)	µg/m³	05	<1.0	Requirement is as per standard specification NAAQS:2009	BBSR

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

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

Parameters	Unit	Requirement	Results	Standard Reference	Test Method
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.56	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	μg/m³	180	5.2	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
i 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
Ammonia (NH3)	μg/m³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05,Issue No.01: 2017
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
Arsenic ( as As)	μg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
Nickel (Ni)	µg/m³	20	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
ocation & Date : NEAI	RWAGAN	GATE, DATE:	- 24.08.202	24	
Sulphur Dioxide	µg/m³	80	8.12	Requirement is as per standard specification NAAOS:2009	IS 5182(PART-2) : 2001
Nitrogen Dioxide	µg/m³	80	12.09	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6 ) :2006
Particulate Matter (PM10)	μg/m³	100	66.55	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006
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
Carbon Monoxide (CO) (01 Hrs.)	mg/m³	04	0.66	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
Ozone (O3) (01 Hrs.)	µg/m³	180	6.5	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-19:2019
i 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
ii Ammonia (NH3)	µg/m³	400	<4.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-05,Issue No.01: 2017
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
Arsenic ( as As)	µg/m³	06	<1.0	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-10,Issue No.01: 2017
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 NAAOS: 2009	KLPL/SOP/AIR-07,Issue No.01: 2019



Kalyani Laboratories

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

### **TEST REPORT**

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

Issue Date : 20-Sep-2024

Amendment No Amendment Date

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

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

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

: 19-Sep-2024 Commenced On: 19-Sep-2024 Completion On: 20-Sep-2024 Date of receipt

: AMBIENT AIR QUALITY MONITORING Sample Name

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

Sample Collected By : MR. SUDHIR KUMAR BARIK

Parameters	Unit	Requiremen	t Results	Standard Reference	Test Method
ocation & Date	: ADMIN BUILDIN	IG,DATE:-18.	.09.2024		AND CONTROL TO THE AND A CONTROL TO THE AND A CONTROL TO THE AND THE AND THE CONTROL TO THE CONT
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
ii Nitrogen Dioxide	µg/m³	80	12.50	Requirement is as per standard specification NAAQS:2009	IS 5182 (PART 6 ) :2006
v Particulate Matter (PM1)	0) 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/m <sup>3</sup>	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 <mark>P</mark> b)	µg/m³	1.0	<0.02	Requirement is as per standard specification NAAOS:2009	KLPL/SOP/AIR-10,Issue No.01:2017
x 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 G	ATE, DATE:-	18.09.2024		
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 (PM1	0) µg/m³	100	74.91	Requirement is as per standard specification NAAQS:2009	IS 5182(PART-23) :2006 BBSR
V Particulate Matter (PM2	.5) µg/m³	60	34.34	Requirement is as per standard specification NAAQS:2009	KLPL/SOP/AIR-02,Issue Wor01;2017
Benzene (C6 H6)	μg/m³	05	<1.0	Requirement is as per standard specification NAAOS: 2009	KLPL/SOP/AIR-07,Issue No.01: 2019

Calyani Laboratories

xii Benzene (C6 H6)

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

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
x 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
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:-	18.09.202	4	9
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
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
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
ii 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
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
× 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	KLPL/SOP/AIR-10,Issue No.01:2017



NAAQS:2009

Requirement is as per

µg/m³

05

<1.0

KLPL/SOP/AIR-07,Issue No.01: 2019

### Annexure 10

# ସର୍ବସାଧାରଣ ବିଜ୍ଞପ୍ତି

ଏଡିହାର। ପର୍ବସାଧାରଣଙ୍କ ଅବଗତି ନିମ୍ନତେ ଜଣାଇ ଦିଆଯାଇଅଛି ଯେ, ମେସର୍ଷ ଫେକର ପାଞ୍ଜାର ଇମିଟେଡ, ଡି.ପି.ନଗର, ରାନ୍ଦିଆ, ଇନ୍ତକରେ କୋଇଲାଭିଣିକ ଅର୍ମାଲ ପାଞ୍ଜାର ପ୍ରାଣ୍ଟ ବସାଇବା ନିର୍ମିତ ଜଣଳ ଓ ପରିକେଶ ସୁରକ୍ଷା ମଖଣାଳୟରୁ ପରିକେଶ ସୀକୃତିପ୍ରାସ୍ତ ଚିଠି ରାଜ୍ୟ ପରିକେଶ ମଖଣାଳୟରେ ପ୍ରାସ୍ତ ହେବ ଏକ ଏହା ପରିକେଶ ମଖଣାଳୟରେ ପ୍ରାସ୍ତ ହେବ ସାଇଟ http://envfor.nic.in ରେ ମଧ୍ୟ ପ୍ରସ୍ତ ହେବ । ସ୍ୱା./- ନିର୍ଦ୍ଦେଶକ

## **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 <a href="http://envfor.nic.in.">http://envfor.nic.in.</a>

Date - 11 - 05-2009.

THE SAMAJ.

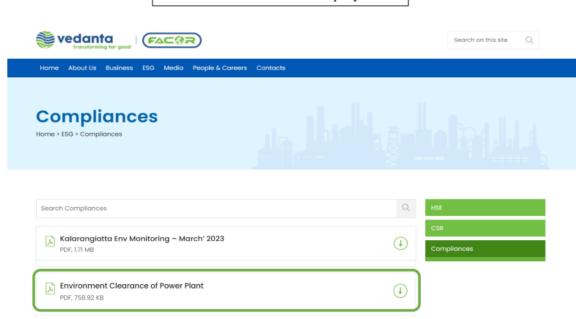
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### Annexure 11



### Environment Clearance in Company Portal



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







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 31<sup>st</sup> 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

owner/occupier of the industry: (Power Plant)

and address of the : M/s. Ferro Alloys Corporation Limited

operation

At:D.P.Nagar, Po:Randia,

District - Bhadrak-756135, Odisha.

02. Industry Category

: Red category

Primary (STC Code) Secondary (SIC code)

03. Production Capacity

: Captive Power Plant - 100 MW

04. Year of Establishment

: July'2011

Environmental: 29.09.2023 05. Date of last

Statement submitted

### PART - B

### WATER CONSUMPTION & RAW MATERIAL CONSUMPTION

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		
S. Chieshia .	22-23	23-24	22-23	23-24	
Power	290365 MWH	290536 MWH	3.31 m³/MW	3.31 m <sup>3</sup> /MW	

### 3. Raw Material Consumption

Name of raw materials	Name of the product	Consumption of raw materials / unit 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	

Sensitivity: Public (C4)

05.	рН	5.5 to 9	8.1
06.	Temperature (°C)	shall not exceed 5°C above the	NA
		receiving water temperature	
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 °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 <sup>+6</sup> ), 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	a) 10 <sup>-7</sup>	a) 2.7*10 <sup>-10</sup>
	b) Beta emitter, micro curie/ml	b) 10 <sup>-6</sup>	b) 8.1*10 <sup>-10</sup>
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	Standard as per CTO	Wastewater quality
	Measurement	ORNASAS	
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 <sub>4</sub>	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/Nm³)		SO <sub>2</sub> (mg/Nm <sup>3</sup> )		Ox Nm³)		
01. ESP outlet of CFBC Boiler		42.32		132.25			
		CO2 (%)		CO (%)	Hg (%)		
	8.1		<0.001	0.015	)15		
02.	Ambient Air	PM 2.5 (μg/m <sup>3)</sup>	PM 10 (μg/m <sup>3)</sup>	SO <sub>2</sub> (μg/m <sup>3)</sup>	$\frac{\text{NOx}}{(\mu g/\text{m}^3)}$	CO (mg/m³)	
		39.83	82.43	10.58	18.52	0.58	

### $\underline{PART - D}$

### **HAZARDOUS WASTE**

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

Hazardous Waste	Total C	uantity
	22-23	23-24

Used Oil	1.36 KL	0 KL
Waste containing Oil	OT	OT
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 800M³ 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.

Sensitivity: Public (C4)

- 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.