



Ref: FPL/BDK/HSE/386/2022-23 Dtd.15.11.2022

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: seiaaorissa@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. for the period from April 2022 to September-2022.

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 for the period from April 2022 to September 2022.

The monthly Environmental Monitoring data and other required information with respect to compliance of the said Six-Monthly compliance for the period from April 2022 to September 2022 are also enclosed herewith for your kind perusal and records.

Thanking you

Yours faithfully

For FACOR Power Ltd.

G C Mohanty

Factory Manager- PP

Enclosed: As above.

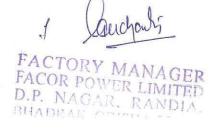
Six	Мо	nthly Environment Compliance Report for the 2022	e period from April 2022 upto September
SI No.		Stipulated Conditions	Compliance to conditions
1	ì	The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution 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 prscribed statutory norms and conditions.	All necessary measures for prevention and control of air pollution, water pollution, Noise pollution and land pollution have been taken as per prescribed norms and conditions. Online as well as third party (OSPCB authorized agency) monitoring and analysis of all above parameters are being carried out on regular basis.
2	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 mean time we have taken some steps for socioeconomic development such as local employment, development of infrastructure for education, black topping of village road, supply road of drinking water for villagers, health care facility etc.
3	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.
4	iv	The applicant will take statutory clearance/ approval / permissions from the concerned authorities in respect of his project as and when required.	We have taken all statutory clearance / approval / permission from the concerned authorities in respect of project as and when required.
5	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 calender year.	Half yearly compliance report in respect of the stipulated terms and conditions of Environmental clearance are being submitted to the SEIAA, Odisha.
6	vi	High efficiency electrostatic prescipitators (ESPs) shall be installed to ensure that particulate emmission does not exceed 50 mg/Nm3.	ESP installed to maintain SPM emission below 50mg/Nm3. We have also installed online monitoring facility with RT-DAS as well as manual monitoring and analysis by outsource agency, which shoes the particulate emission is within the standard. Report is enclosed.
7	vii	Excess water along with storm water during monsoon should not be discharged into the surrounding low lying area. The storm water during monsoon will be collected in a pond and after appropriate treatment shall be stored in a reservoir for use in plantation, dust suppression etc.	Excess water along with storm water during monsoon are not being discharged into the surrounding low-lying area. Separate drains are provided to collect storm water during monsoon and Surface Runoff Treatment Facility project has been Implemented to treat the water and reuse for gardening and dust suppression.
8	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.
9	ix	The proponent shall obtain permission from Water Resources Department, Govt. of odisha for drawal of water.	FPL has already obtained permission for drawal of water from river Salandi by Water Resource Dept., Govt. of Odisha on dated 27.12.2013.
10	x	No ground water shall be extracted for the project work at any stage.	No ground water is being extracted for this project.
11	×i	The technical specification of CFBC system, lime requirement along with point of injection into the bed, peak temperature of combustion, SO2 and NOx emission potential etc. from the manufacturer to ensure the pollution potential (both qualitative and quantitative) of the proposed project with respect to bed ash, fly ash, effluents, emissions etc. to be submitted to SEIAA before commissioning of the plant.	All technical specification of CFBC system along with pollution potential had been submitted to the authority to the authority before commissioning of the plant. Online monitoring for Sox, Nox & SPM has been carried out Evacuation of Fly ash and Bed ash from Boiler to silo is being done through pneumatic conveying system. Zero discharge has been adopted.



FACTORY MANAGER FACOR POWER LIMITED D.P. NAGAR, RANDIA, BHADRAK, CDISHA-756138

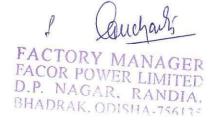
			T		
12	xii	The proponent shall treat the flue gas through Flue Gas Desulfurisation (FGD), if SO2 emission level exceeds the prescribed norm.	So2 emission level is very less than the prescribed standard. Hence treatment of Flue gas is not required Regular monitoring by third party on monthly basis has also been started. Copy of monitering report from Oct-21 to March 2022 are enclosed herewith as Annexure-1		
13	xiii	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vlunerable dusty areas shall be provided.	Dust suppression and Dust extraction system have been provided in Coal Handling Plant transfer areas, Wagon Tippler etc. Sprinkling and spray arrangements have been provided in coal stock pile area and Ash Handling Plant.		
14	xiv	Fly ash shall be collected in dry form and storage facility (silos) shall be provded 100% fly ash utilization shall be ensured as per fly ash notification of MoEF, Govt. of India. Unutilised fly ash and bottom ash shall be stored in the ash pond separately through high concentration slurry disposal method. Mercury levels along with other heavy metals (Pb,Cr,As etc) should be monitored in the fly ash/ bottom ash, leachates and effluents emanating from the ash pond.	Pneumatic conveying system has been provided for dry ash disposal along with silos. As FPL is continuously achieving 100% ash utilization since August-2013, there is no dumping of ash in ash pond. Currently ash pond is acting as water harvesting pond. However, testing of heavy metals in fly ash & bottom ash as well as ground water was done.		
15	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.		
16	xvi	The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary. Arrangements shall be made so that effluents and storm woter do not get mixed.	There is no discharge of control to the state of the stat		
17	xvii	A sewage treatment plant shall be provided and the treated sewage shall be used for raising green belt/ plantation.	STP has been completed. Now it is operational. All the treated water are being used for green belt development		
18		The project proponent shall undertake proactive water havesting measures and water storage for a larger period not less than 30 days storage shall be developed. The rain water harvesting system shall be put in place before commissioning of the plant. Central Ground water Authority, Board shall be consulted for finalisation 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 rain water harvesting shall comprise of rain water 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.	We have two nos of reservoir of 290000 m3 total capacity for storage water Rainwater harvesting and ground water recharge		
19	xix	Adequate safety measures shall be provided in the plant area to check/ minimize spontaneous fires in coal yard, especially during summer season. Details of these measures to be taken along with location plant layout shall be submitted to the SEIAA, Odisha.	Hydrant firefighting system & sprinkler system have been incorporated to meet such situation. Fire hydrant line super impose with plant layout is enclosed in Annexure-2. Details of these measures and plant layout has been submitted to the SEIAA, odisha.		
20	хх	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%.	Onsite and off-site disaster Management Plans are available Mock drills are being conducted regularly. Report enclosed in Annexure-3. Sulphur content in the liquid fuel are not exceeding 0.5%		
21		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.	Ash pond is not in use since 2013 as 100% ash is being utilized by bricks plant & land filling. However monitoring of ground water report is available and to be submitted to the Board. Copy enclosed herewith as Annexure-4		





hall many land and a second			
22	xxii	A green belt of adequate width and density preferably with local species along with periphery of the plant & alongside roads etc. shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green belt throughout the year & for this purpose they may engage professionals in this field for creation and accordingly and submitted to the SEIAA, Odisha.	The green belt development has been started in and around the plant with different local species by engaging experienced Professionals. We have planted approx. 5000 nos. of saplings in this monsoon period and also planned for plantation of different species (which can provide protection against particulate matter and noise) in coming monsoon. Our sincere endeavour is on to bring 33% of land under green belt which is a continuous effort.
23		First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First aid and sanitation arrangement was provided during construction phase.
24	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/ ear muffs 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 treatement for any hearing loss including shifting to non noisy areas.	Acoustic enclosure around the TG set has been provided and the noise level is within the limit. Periodical health check-up is being carried out and no such abnormality of hearing loss is found yet.
25	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 the results are within the prescribed limits. The report of above parameters are enclosed herewith in Annexure-5
26		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 supress dust and all other solid waste are treated housekeeping. Hazardous waste are being disposed to authorised venders.
27		Provision shall be made for housing of construction labourers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	It was provided during construction.
28		An Environmental cell comprising of atleast one expert in environmental science/ engineering, occupational health and social scientist, shall be created at the project site itself and shall be headed by an officer or appropriate superiority and qualification. It shall be ensured that the Head of the cell shall directly report to the head of the organisation and he shall be held responsible for implementation of environmental regulations and social impact improvement/ mitigation measures.	
29	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.
30	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 bugget has been allocated for implementation of environment protection measures and the same is being utilized for the said purposes.
31	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 ic, 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.





32	xxxi i	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter informing that the project has been accorded environmental clearance and copies of clearance letter area available with the State Pollution Controal Board and SEIAA.	The project proposent was advertise in local newspaper dated 11.05.2009. Copy enclosed herewith as Annexure-6.
33	xxxi ii	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, urban local body and the local NGO, if any, from whom suggestions/ representations, if any received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	A copy of the Environment Clearance letter was sent by the Project Proponent to the concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local body and the Local NGO. Report is enclosed in Annexure -7 . Copy of EC has been displayed in company website.
34		The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986. as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	The Environment statement in Form-V is being submitted to the Board annually and the same will be put on the website of the company. Copy enclosed in Annexure -8.
35	xxx v	The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with anyof the conditions mentioned above may result in withdrawal of this clearance and attract penal action under the provisions of Environment Protection (EP) Act, 1986.	Agree to abide.



FACTORY MANAGER FACOR POWER LIMITED D.P. NAGAR, RANDIA BHADRAK, ODISHA-7561



Environmental & Social Study

Visiontek Consultancy Services Pvt. Ltd.
(Committed For Better Environment)

[Laboratory Services]

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development
- Information Technology
- Public Health Engineering
- Mineral/Sub-Soil Exploration

Mine Planning & Design

Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab & Microbiology Lab

Ref: Envlab/22/R-1359 Date: -03.05.2022

STACK MONITORING REPORT-APRIL 2022

1	Name of Client	:	M/s Facor Power Limited, Bhadrak
2	Sampling Location	:	ST1- Stack attached to ESP of Boiler 1
3	Sampling Method	:	IS 11255
4	Date of Sampling	:	25.04.2022
5	Date of Analysis	:	26.04.2022 TO 27.04.2022
6	Monitoring Instruments	:	Vayubodhan Stack Sampler VSS 1
7	Sample Collected By	• •	VCSPL Representative in presence of Client's Representative

Parameters	Unit of Measurement	Analysis Result
Stack Temperature	⁰ C	160
Velocity of Flue Gas	m/sec	13.39
Volume of Flue Gas	Nm³/hr	376648.18
Concentration of Particulate Matter as PM	mg/Nm³	38.4
Sulphur dioxide as SO ₂	mg/Nm ³	91.6
Oxides of Nitrogen as NO _x	mg/Nm ³	89.2
Carbon dioxide as CO ₂	%	5.6
Carbon monoxide as CO	%	< 0.1
Mercury as Hg	%	0.013







Environmental & Social Study

Visiontek Consultancy Services Pvt. Ltd.
(Committed For Better Environment)

[Laboratory Services]

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development Information Technology Public Health Engineering
- Mine Planning & Design Mineral/Sub-Soil Exploration

Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab & Microbiology Lab

Date: -04.06.2022 Ref: Envlab/22/R-2883

STACK MONITORING REPORT-MAY 2022

		_	
1	Name of Client	:	M/s Facor Power Limited, Bhadrak
2	2 Sampling Location : ST1- Stack attached to ESP of Boiler 2		ST1- Stack attached to ESP of Boiler 2
3	Sampling Method	:	IS 11255
4	Date of Sampling		20.05.2022
5	Date of Analysis	:	21.05.2022 TO 23.05.2022
6 Monitoring Instruments : Vayubodhan Stack Sampler VSS 1		Vayubodhan Stack Sampler VSS 1	
7	7 Sample Collected By : VCSPL Representative in presence of Client's Representative		VCSPL Representative in presence of Client's Representative

Parameters	Unit of Measurement	Analysis Result
Stack Temperature	⁰ C	155
Velocity of Flue Gas	m/sec	13.32
Volume of Flue Gas	Nm ³ /hr	378902.12
Concentration of Particulate Matter as PM	mg/Nm ³	26.6
Sulphur dioxide as SO ₂	mg/Nm ³	73.2
Oxides of Nitrogen as NO _x	mg/Nm ³	88.4
Carbon dioxide as CO ₂	%	6.3
Carbon monoxide as CO	%	< 0.1
Mercury as Hg	%	0.011







isiontek Consultancy Services Pvt. Ltd.
(Committed For Better Environment)

[Laboratory Services]

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development
- Information Technology
- Mine Planning & Design Mineral/Sub-Soil Exploration
- Waste Management Services

Material Lab Soil Lab Mineral Lab & Microbiology Lab

Laboratory Services Environment Lab Food Lab

 Environmental & Social Study Public Health Engineering Ref: Envlab/22/R- 4884 Date: -06.07.2022 **STACK MONITORING REPORT-JUNE 2022**

1	Name of Client	:	M/s Facor Power Limited, Bhadrak
2	Sampling Location	:	ST1- Stack attached to ESP of Boiler 2
3	Sampling Method	:	IS 11255
4	Date of Sampling	:	10.06.2022
5	Date of Analysis	:	11.06.2022 TO 13.06.2022
6	Monitoring Instruments	:	Vayubodhan Stack Sampler VSS 1
7	Sample Collected By	:	VCSPL Representative in presence of Client's Representative

Parameters	Unit of Measurement	Analysis Result
Stack Temperature	⁰ C	138
Velocity of Flue Gas	m/sec	10.2
Volume of Flue Gas	Nm³/hr	218240.22
Concentration of Particulate Matter as PM	mg/Nm ³	21.2
Sulphur dioxide as SO ₂	mg/Nm ³	56.2
Oxides of Nitrogen as NO _x	mg/Nm ³	62.2
Carbon dioxide as CO ₂	%	5.2
Carbon monoxide as CO	%	< 0.1
Mercury as Hg	%	0.012

Reviewed By





Approved By



Infrastructure Enginering Water Resource Management Environmental & Social Study

Visiontek Consultancy Services Pvt. Ltd.
(Committed For Better Environment)

(Laboratory Services)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development
- Information Technology Public Health Engineering
- Mine Planning & Design Mineral/Sub-Soil Exploration
- Waste Management Services

Soil Lab Mineral Lab & Microbiology Lab

Laboratory Services Environment Lab Food Lab

Material Lab

Ref: Enwab/22 R-6317

Date: 06.07.2022

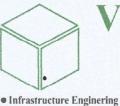
STACK MONITORING REPORT-JULY 2022

1	Name of Client	:	M/s Facor Power Limited, Bhadrak	
2	Sampling Location	:	ST1- Stack attached to ESP of Boiler 2	
3	Sampling Method	:	IS 11255	
4	Monitoring Instruments	:	Vayubodhan Stack Sampler VSS 1	
5	Sample Collected By	:	VCSPL Representative in presence of Client's Representative	

Parameters	Unit of Measurement	Analysis Result
Stack Temperature	°C	
Velocity of Flue Gas	m/sec	
Volume of Flue Gas	Nm³/hr	
Concentration of Particulate Matter as PM	mg/Nm³	Plant Shut Down
Sulphur dioxide as SO ₂	mg/Nm³	
Oxides of Nitrogen as NO _x	mg/Nm³	
Carbon dioxide as CO ₂	%	
Carbon monoxide as CO	%	
Mercury as Hg	%	







■ Environmental & Social Study

Visiontek Consultancy Services Pvt. I
(Committed For Better Environment)

(Laborato

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

Surface & Sub-Surface Investigation

• Quality Control & Project Management

• Renewable Energy

Agricultural Development

• Information Technology

Public Health Engineering

• Mine Planning & Design

• Mineral/Sub-Soil Exploration Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab Microbiology Lab

Ref: Envlab/22/R-7162

Date: -05.09.2022

STACK MONITORING REPORT-AUG 2022

1	Name of Client	:	M/s Facor Power Limited, Bhadrak
2	Sampling Location		ST1- Stack attached to ESP of Boiler 2
3	Sampling Method		IS 11255
4	Date of Sampling		20.08.2022
5	Date of Analysis		22.08.2022 TO 24.08.2022
6	Monitoring Instruments		Vayubodhan Stack Sampler VSS 1
7	Sample Collected By		VCSPL Representative in presence of Client's Representative

Parameters	Unit of Measurement	Analysis Result
Stack Temperature	°C	• 156
Velocity of Flue Gas	m/sec	13.52
Volume of Flue Gas	Nm³/hr	348998.56
Concentration of Particulate Matter as PM	mg/Nm³	26.6
Sulphur dioxide as SO ₂	mg/Nm³	72.2
Oxides of Nitrogen as NO _x	mg/Nm³	87.4
Carbon dioxide as CO ₂	%	6.2
Carbon monoxide as CO	%	< 0.1
Mercury as Hg	%	0.011







• Environmental & Social Study

isiontek Consultancy Services Pvt. Lt
(Committed For Better Environment)

[Laboratory Services Pvt. Lt]

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development
- Information Technology
- Public Health Engineering
- Mine Planning & Design
- Mineral/Sub-Soil Exploration

Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab & Microbiology Lab

Ref: Envlab/22/R-8027

Date: -07.10.2022

STACK MONITORING REPORT-SEPT 2022

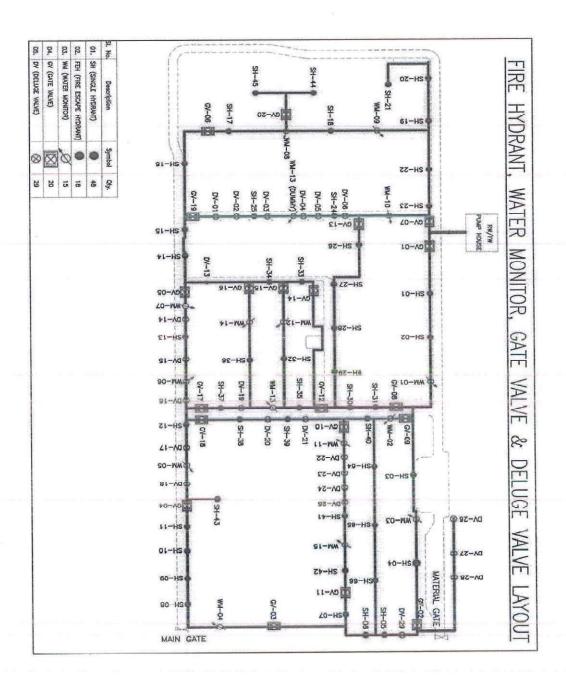
1	Name of Client		M/s Facor Power Limited, Bhadrak			
2	Sampling Location	:	ST1- Stack attached to ESP of Boiler 2			
3	Sampling Method		IS 11255			
4	Date of Sampling		28.09.2022			
5	Date of Analysis		29.09.2022 TO 30.09.2022			
6	Monitoring Instruments		Vayubodhan Stack Sampler VSS 1			
7	Sample Collected By		CSPL Representative in presence of Client's Representative			

Parameters	Unit of Measurement	Analysis Result
Stack Temperature	°C	132
Velocity of Flue Gas	m/sec	13.05
Volume of Flue Gas	Nm³/hr	337988.32
Concentration of Particulate Matter as PM	mg/Nm³	26.1
Sulphur dioxide as SO ₂	mg/Nm³	68.8
Oxides of Nitrogen as NO _x	mg/Nm³	84.2
Carbon dioxide as CO ₂	%	6.4
Carbon monoxide as CO	%	< 0.1
Mercury as Hg	%	0.012





Annexure.2





A was pre-			Fac	or Power L	imited		
				Fire Hydra	nt		
L No.	Hydrant no.	Location	Remarks	SI. No.	Hydrant no.	Location	Remarks
1	S.H-01	In Between CW Riser 1 & 2		34	S.H-34	Boller-2, Road Side	
2	S.H-02	In Between CW Riser 4 & 5		35	S.H-35	Chimney Road near GV-12	
3	S.H-03	Fly Ash Silo-1		36	S.H-36	In Between ESP 1 & 2	
4	S.H-04	Weigh Bridge		37	S.H-37	Near 35KL HSO Tank	
5	S.H-05	Near Material Gate		38	S.H-38	Opposite of 35KL HSD Tank	
6	S.H-06	Near BC - 13, Take-up pulley		39	S.H-39	Chimney Road near PCH	
7	S,H-07	Near Ground Hopper, Boundry Side		40	S.H-40	BC-13 Head End, Road Side	
8	S.H-08	Security Building		41	S.H-41	Near Magnetic Separator of BC-1	
9	S.H-09	Near Time Office		42	S.H-42	Ground Hopper	
10	S.H-10	Neer Bike Stand Road Side		43	S.H-43	Near CHP Control Room	
11	S.H-11	Near CHP Road Side		44	S.H-44	Inside Main Store	
12	S.H-12	Near SCH Road Side		45	S.H45	Inside Lubricant Area of Main Store	
13	S.H-13	Near ESP Control Room Road Side		46	S.H-46, FEH-01	Boiler-1 (EL=20.700)	
14	S.H-14	STG Building Entrance		47	S.H-47, FEH-02	Boiler-1 (EL=28.000)	
15	S.H-15	ST-1 Wall Side		48	S.H-48, FEH-03	Boiler-1 (EL=36.050)	
16	S.H-16	132 KV Switch Yard Road Side		49	S.H-49, FEH-04	Boiler-1 (EL=46 200)	
17	S.H-17	132 KV Switch Yard Road Side		50	S.H-50, FEH-05	Boller-2 (EL=20,700)	
18	S.H-18	132 KV Switch Yard Back Side		-51	S.H-51, FEH-06	Boiler-2 (EL=28.000)	
19	S.H-19	ETP Road Side towards RLY line		52	S.H-52, FEH-07	Boller-2 (EL=36.050)	
20	S.H-20	ETP Road Side near Sludge Tank		53	S.H-53, FEH-08	Boler-2 (EL=46.200)	
21	S.H-21	ETP Near HRSCC Tank		54	S.H-54, FEH-09	Boller-3 (EL=20.700)	La Till
22	S.H-22	ETP Road Side towards RLY line		55	S.H-55, FEH-10	Boller-3 (EL=28.000)	
23	S.H-23	Near CW Pump House, Road Side		56	S.H-56, FEH-11	Boller-3 (EL=35.050)	
24	S.H-24	Near GT-2, Road Side		57	S.H-57, FEH-12	Boler-3 (EL=45.200)	
25	S.H-25	ST-1 Road Side near DV-182		58	S.H-58, FEH-13	STG Building-1 Staircase (5 mtr)	
26	S.H-26	Near CW MCC Room		59	S.H-59, FEH-14	STG Building-1 Staircase (10.5 mlr)	
27	S.H-27	Infront of 3MVA Conv. Transformer-3		60	S.H-60, FEH-15	STG Building-1 Staircase (15 mtr)	
28	S.H-28	DM Plant, Road Side		81	S.H-61, FEH-16	STG Building-2 Staircase (5 mtr)	
29	S.H-29	Near Compressore House		62	S.H-62, FEH-17	STG Building-2 Staircase (10.5 mtr)	
30	SH-30	Near AHS MCC Room, Road Side		63	S.H-63, FEH-18	STG Building-2 Staircase (15 mir)	
31	S.H-31	BC-13 End, Road Side		64	S.H-64	BC-13, Head End towards Cooling Tower, Cell No-7	
32	S.H-32	In Between ESP 2&3		55	S.H-65	BC-13 Meddle Point	
33	S.H-33	Infront of 3 MVA Conv.Transformer-1		66	S.H86	BC-13, Tail End towards TT-2	
	Total			66 Nos. Single	Hydrant Post with L	anding valve	



Annexure-3

MOCK DRILL FOR RESCUE FROM PRESSED UNDER RAILWAY SLIPPER

Date & Time: 26.04.2022 & 10.01 hours

Location: Wagon Tippler (Railway Siding)

Drill Start Time: 10.01 hours

Drill End Time: 10.40 hours

Total time of the Drill: 39 Minutes

Emergency Scenario:

Mr. Jibendra Swain, worker, working under M/s Surendra Rout was engaged in rail track maintenance work at wagon tippler. He was lifting-up the slipper from rail siding. He got unbalanced and rail slipper fall on his left leg & felt pain. This was immediately informed to the Emergency Control Room by his co-worker Mr. Biswanath Rout. After receiving the message from ECR, security team along with the Pharmacist rushed to the spot and rescued the IP. After first aid treatment given by Pharmacist at site, he was shifted to first aid Centre through ambulance for observation.

Observation / Sequence of events with details:

- Spotting emergency: 10.01 hours
- Time of informing to ECR: 10.01 hours
- Reporting to WMC / SIC: Nil
- Declaration of Emergency / Blowing of Emergency Siren: Nil
- Mobilization of Security / rescue team at spot: 10.07 hours
- ❖ Work Main Controller (WMC) / Site Incident Controller (SIC) reached at spot:
- Pharmacist reached at spot: 10.07 hours
- Emergency Vehicle (Ambulance) reached at spot: 10.12 hours
- Assembly of workers at Assembly spot: 10.30 hours
- Completion of Emergency Roll Call at site: 10.39 hours
- Declaration of Normalcy / Blowing of all clear Siren: 10.40 hours

Weakness / Shortcomings Observed:

SI.No	Observation	Responsibility	Timeline	Remarks
1	No information to WMC, SIC, CTL & Safety co-ordinator	Security Supervisor	Next mock	
	The state of the s	& Indiverker	drill	
2	Emergency siren not sounded.	-do-	-do-	
3	No proper communication as per command structure	-do-	-do-	
4	Security team was not carrying the megaphone for announcement for emergency	-do-	-do-	
5	More awareness sessions are required for skill development of security personnel	-do-	05.05.2022	



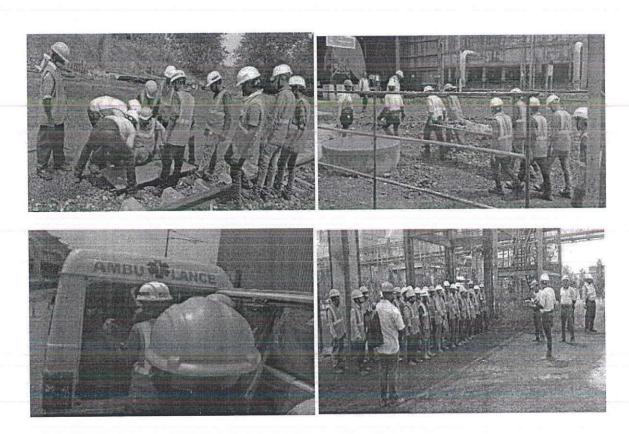
Good Observation:

- 1. Adjacent dept. workers reached at the accident place by hearing ambulance alarm.
- 2. Accident spot was combatted by IP co-workers & arranged stretcher for rescue purpose.

Total 28 Persons Present During Mock Drill

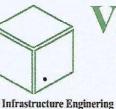
Name of the Observer:

- 1. Soubhagya Ranjan Panda, Head O&M WT
- 2. Sk Motiur Rahman, Sr. Safety Officer









Environmental & Social Study

isiontek Consultancy Services Pvt. Lt
(Committed For Better Environment)

[Laboratory Services Pvt. Lt]

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

● Surface & Sub-Surface Investigation

Quality Control & Project Management

· Renewable Energy

• Agricultural Development

 Information Technology Public Health Engineering ■ Mine Planning & Design Mineral/Sub-Soil Exploration

Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab Microbiology Lab

Ref: Envlab/21/R-6314

Date: -10.08.2022

DRINKING WATER QUALITY ANALYSIS REPORT FOR JULY-2022

1. Name of Industry

M/s FACOR Power Limited, Bhadrak

Date of Sampling

13.07.2022

3. Sampling Location

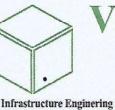
DW-2: Drinking Water From Main Gate Aqua guard

4. Date of analysis

14.07.2022 TO 20.07.2022

Sample Collected By WCCDI Doprocontativo

SI. No.	Parameter	Unit	Standard as per IS -10500:2012 Amended on 2015 & 2018	Analysis Result DW-1		
140.			Permissible Limit			
Essen	tial Characteristics					
1	Colour	Hazen	5	<5		
2	Odour	22 33	Agreeable	Agreeable		
3	Taste	-	Agreeable	Agreeable		
4	Turbidity	NTU	1	0.62		
5	pH at 25°C		6,5-8,5	6.17		
6	Total Hardness (as CaCO ₃)	mg/l	200	56		
7 .	Iron (as Fe)	mg/l	1.0	<1		
8	Chloride (as Cl)	mg/l	250	13.2		
9	Residual, free Chlorine	mg/l	0.2	0.22		
Desire	able Characteristics					
10	Dissolved Solids	mg/l	500	60		
11	Calcium (as Ca)	mg/l	75	9.0		
12	Magnesium (as Mg)	mg/l	30	8.2		
13	Copper (as Cu)	mg/l	0.05	<0.02		
14	Manganese (as Mn)	mg/l	1 0.1			
15	Sulphate (as SO ₄)	mg/l	200	4.06		
16	Nitrate (as NO ₃)	mg/l	45	0.91		
17	Fluoride (as F)	mg/l	1.0	0.018		
18	Phenolic Compounds(as C ₆ H ₅ OH)	mg/l	0.001	<0.05		
19	Mercury (as Hg)	mg/l	0.001	<0.004		
20	Cadmium (as Cd)	mg/l	0.003	<0.01		
21	Selenium (as Se)	mg/l	0.01	<0.001		
22	Arsenic (as As)	mg/l	0.01	<0.004		
23	Cyanide (as CN)	mg/l	0.05	<0.01		
24	Lead (as Pb)	mg/l	0.01	<0.02		
25	Zinc (as Zn)	mg/l	5	<0.03		
26	Anionic Detergents (as MBAS)	mg/l	0.2	<0.2		
27	Chromium (as Cr ⁺⁶⁾	mg/l		<0.01		
28	Mineral Oil	mg/l	0.5	<0.001		
29	Alkalinity	mg/l	200	60.4		
30	Aluminium as(Al)	mg/l	0.03	<0.1		
31	Boron (as B)	mg/l	0.5	<0.1		
32	E. coli	MPN/ 100ml	Shall not be dectable in any 100ml sample	Absent		
33	Ammonia (as total ammonia-N)	mg/l	0.5	<0.1		
34	Molybdenum (as Mo)	mg/l	0.07	<0.05		



Environmental & Social Study

isiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Laboratory Services

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development
- Information Technology
- Public Health Engineering
- Mine Planning & Design
- Mineral/Sub-Soil Exploration

• Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab & Microbiology Lab

35	Barium (as Ba)	mg/l	0.7	<0.05
36	Chloramines (as Cl ₂)	mg/l	4.0	<2.0
37	Silver (as Ag)	mg/l	0.1	<1.0
38	Sulphide (as H ₂ S)	mg/l	0.05	<0.05
39	Nickel (as Ni)	mg/l	0.2	<0.1
40	Polychlorinated biphenyls (PCB)	mg/l	0.0005	Absent
41	Polyaromatic hydrocarbons (PAH)	mg/l	0.0001	<0.0001
42	Total Chromium (as Cr)	mg/l	0.05	<0.1
43	Bromoform	mg/l	0.1	<0.005
44	Dibromochloromethane	mg/l	0.1	<0.005
45	Bromodichloromethane	mg/l	0.06	<0.005
46	Chloroform	μg/l	0.2	<0.005
47	Alachlor	μg/l	20	<0.01
48	Atrazine	μg/l	2	<0.01
49	Aldrin/Dieldrin	μg/l	*0.03	<0.01
50	Alpha HCH	μg/l	0.01	<0.01
51	Beta HCH	μg/l	0.04	<0.01
52	Butachlor	μg/l	125.0	<0.01
53	Chloropyriphos	μg/l	30.0	<0.01
54	Delta HCH	μg/l	0.04	<0.01
55	2,4-Dichlorophenoxyacetic acid	μg/l	30	<0.01
56	DDT (o.p and p,p –Isomers of DDT,DDE and DDD)	μg/l	1	<0.01
57	Endosulfan (alpha, beta and sulphate)	μg/l	0.4	<0.01
58	Ethion	μg/l	3	<0.01
59	Gamma HCH (Lindane)	μg/l	2	<0.01
60	Isoproturon	μg/l	9	<0.01
61	Malathion	μg/l	190	<0.01
62	Methyl parathion	μg/l	0.3	<0.01
63	Monocrotophos	μg/l	1.0	<0.01
64	Phorate	μg/l	2.0	<0.01
65	Total Coliform	MPN/100 ml	Shall not be detectable in any 100 ml sample	Absent







Environmental & Social Study

Visiontek Consultancy Services Pvt. Ltd

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development
- Information Technology
- Public Health Engineering
- Mine Planning & Design
- Mineral/Sub-Soil Exploration

Laboratory Services
Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab

Ref: Envlab/22/R-8031

Date: -07.10.2022

GROUND WATER QUALITY ANALYSIS REPORT FOR SEPT-2022

28.09.2022

1. Name of Industry

M/s FACOR Power Limited, Bhadrak

2. Date of Sampling

e :

3. Sampling Location4. Date of analysis

GW-1: Near Ash pond 29.09.2022 to 01.10.2022

Sample Collected By VCSPL Representative Standard as per **Analysis** SI. IS -10500:2012 Parameter Unit Result Amended on 2015 & 2018 No. GW-1 Permissible Limit **Essential Characteristics** Colour Hazen 5 <5 Odour Agreeable Agreeable 3 Taste Agreeable Agreeable 4 **Turbidity** NTU 0.50 1 pH at 25°C 6.5-8.5 7.36 6 Total Hardness (as CaCO₃) mg/l 200 106 Iron (as Fe) 1.0 0.52 mg/l 8 Chloride (as Cl) mg/l 250 27.4 9 Residual, free Chlorine mg/l 0.2 ND Desirable Characteristics 10 **Dissolved Solids** 500 mg/l 190 Calcium (as Ca) 11 75 mg/l 32.4 12 Magnesium (as Mg) mg/l 30 6.1 13 Copper (as Cu) 0.05 mg/l 0.032 14 Manganese (as Mn) mg/l 0.1 BDL 15 Sulphate (as SO₄) mg/l 200 42.2 16 Nitrate (as NO₃) mg/l 45 1.89 17 Fluoride (as F) 1.0 mg/l 0.56 18 Phenolic Compounds (as C6H5OH) 0.001 mg/l BDL 19 Mercury (as Hg) 0.001 mg/l < 0.001 20 Cadmium (as Cd) mg/l 0.003 < 0.001 21 Selenium (as Se) mg/l 0.01 <0.001 22 Arsenic (as As) 0.01 < 0.004 mg/l 23 Cyanide (as CN) 0.05 <0.01 mg/l 24 Lead (as Pb) 0.01 <0.02 mg/l 25 Zinc (as Zn) 5 0.23 mg/l 26 Anionic Detergents (as MBAS) 0.2 < 0.2 mg/l 27 Chromium (as Cr+6) mg/l < 0.01 28 Mineral Oil mg/l 0.5 < 0.001 29 Alkalinity 200 mg/l 69.0 30 Aluminium as(Al) 0.03 <0.1 mg/l 31 Boron (as B) 0.5 < 0.1 mg/l MPN/ Shall not be dectable in any 32 E. coli Absent 100ml sample 100ml 33 Ammonia (as total ammonia-N) mg/l 0.5 < 0.1 34 Molybdenum (as Mo) 0.07 mg/l < 0.05

Visit us at: www.vcsnl.org



• Infrastructure Enginering

 Water Resource Management Environmental & Social Study

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade Surface & Sub-Surface Investigation

Quality Control & Project Management

Renewable Energy

Agricultural Development

Information Technology

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

• Public Health Engineering

Mine Planning & Design

Mineral/Sub-Soil Exploration

Waste Management Services

tek Consultancy Services Pvt. 1
(Committed For Better Environment)

(Laborate **Laboratory Services** Environment Lab Food Lab Material Lab Soil Lab Mineral Lab Microbiology Lab

35	Barium (as Ba)	mg/l	0.7	<0.05
36	Chloramines (as Cl ₂)	mg/l	4.0	<2.0
37	Silver (as Ag)	mg/l	0.1	<1.0
38	Sulphide (as H ₂ S)	mg/l	0.05	<0.05
39	Nickel (as Ni)	mg/l	0.2	<0.1
40	Polychlorinated biphenyls (PCB)	mg/l	0.0005	Absent
41	Polyaromatic hydrocarbons (PAH)	mg/l	0.0001	<0.0001
42	Total Chromium (as Cr)	mg/l	0.05	<0.1
43	Bromoform	mg/l	0.1	<0.005
44	Dibromochloromethane	mg/l	0.1	<0.005
45	Bromodichloromethane	mg/l	0.06	<0.005
46	Chloroform	μg/l	0.2	<0.005
47	Alachlor	μg/l	20	<0.01
48	Atrazine	μg/l	2	<0.01
49	Aldrin/Dieldrin	μg/l	0.03	<0.01
50	Alpha HCH	μg/l	0.01	<0.01
51	Beta HCH	μg/l	0.04	<0.01
52	Butachlor	μg/l	125.0	<0.01
53	Chloropyriphos	μg/l	30.0	<0.01
54	Delta HCH	μg/l	0.04	<0.01
55	2,4-Dichlorophenoxyacetic acid	μg/l	30	<0.01
56	DDT (o.p and p,p -Isomers of DDT,DDE and DDD)	μg/l	1	<0.01
57	Endosulfan (alpha, beta and sulphate)	μg/l	0.4	<0.01
58	Ethion	μg/l	3	<0.01
59	Gamma HCH (Lindane)	μg/l	2	<0.01
60	Isoproturon	μg/l	9	<0.01
61	Malathion	μg/l	190	<0.01
62	Methyl parathion	μg/l	0.3	<0.01
63	Monocrotophos	μg/l	1.0	<0.01
64	Phorate	μg/I	2.0	<0.01
65	Total Coliform	MPN/100 ml	Shall not be detectable in any 100 ml sample	<1.8

Note: BDL: Below Detection Limit, ND: Not detectable







Environmental & Social Study

isiontek Consultancy Services Pvt. Ltd
(Committed For Better Environment)

[Laboratory Services]

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- · Renewable Energy
- Agricultural Development
- Information Technology
- Public Health Engineering
- Mine Planning & Design
- Mineral/Sub-Soil Exploration Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab & Microbiology Lab

Ref: Envlab/22/R-1358

Date: -03.05.2022

AMBIENT AIR QUALITY (CORE ZONE) MONITORING REPORT- APRIL 22

1	Name of Client	:	M/s Facor Power Limited, Bhadrak
			AAQ1- Near Admin Building Office
2	Sampling Location	:	AAQ2- Near Main Gate
			AAQ3- Near Wagon Tippler
3	Sampling Method	:	IS 5182(P-5) 1975 RA 2014
4	Date of Sampling	:	25.04.2022
5	Date of Analysis	:	26.04.2022 TO 28.04.2022
6	6 Monitoring Instruments : RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor		RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor
7	7 Sample Collected By : VCSPL Representative in presence of Client's Representative		VCSPL Representative in presence of Client's Representative

				NAAQ	Analysis Result		
SL.No	Parameters Analyzed	Unit	Testing Methods	Standard	AAQ-1	AAQ-2	AAQ-3
1	Particulate matter (size less than 10μm) or PM ₁₀	μg / m³	IS 5182 (P-22) 2006 RA 2017 Gravimetric Method	100	72.8	73.2	71.9
2	Particulate matter (size less than 10 μm) or PM _{2.5}	μg / m³	IS 5182 (P-24) 2019 Gravimetric Method	60	44.6	47.4	43.2
3	Sulphur dioxide as SO ₂	μg / m ³	IS 5182 (P-2) 2001 RA 2017 Improved West and Geake Method	80	13.4	13.8	13.6
4	Oxides of Nitrogen as NO _x	μg / m³	IS 5182 (P-6) 2006 RA 2017 Modified Jacob &Hochheiser Method (Na-Arsenite)	80	19.2	20.8	18.8
5	Carbon Monoxide as CO	mg / m ³	IS 5182 (P-10) 2006 RA 2017 NDIR Spectroscopy	4	0.41	0.44	0.49
6	Ozone as O ₃	$\mu g / m^3$	IS 5182 (P-9) 1974 RA 1986 Chemical Method	100	4.8	6.2	6.1
7	Ammonia as NH ₃	$\mu g / m^3$	IS 5182 (P-25) 2018 NDIR Spectroscopy	400	BDL	BDL	BDL
8	Lead as Pb	μg / m³	IS 5182 (P-22) 2004 AAS method after sampling	1	BDL	BDL	BDL
9	Nickel as Ni	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	20	BDL	BDL	BDL
10	Arsenic as As	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	6	BDL	BDL	BDL
11	Benzene as C ₆ H ₆	$\mu g / m^3$	IS 5182 (P-11) 2006 Absorption & Desorption followed by GC analysis	5	BDL	BDL	BDL
12	Benzo –a-Pyrene	ng/m³	IS 5182 (P-12) 2004 Solvent extraction followed by Gas Chromatography analysis	1	BDL	BDL	BDL

BDL Values: $SO_2 \le 4 \mu g/m^3$, $NO_X \le 9 \mu g/m^3$, $O_3 \le 4 \mu g/m^3$, $Ni \le 0.01 ng/m^3$, $As \le 0.001 ng/m^3$, $C_6H_6 \le 0.001 \mu g/m^3$, $BaP \le 0.002 ng/m^3$, Pb $<0.001 \mu g/m^3$, CO $-<0.1 mg/m^3$

Reviewed By



Approved By





Environmental & Social Study

isiontek Consultancy Services Pvt. L

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development
- Information Technology
- Public Health Engineering
- Mineral/Sub-Soil Exploration

Mine Planning & Design

Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab & Microbiology Lab

Ref: Envlab/22/R-2882 Date: -04.06.2022 AMBIENT AIR QUALITY (CORE ZONE) MONITORING REPORT-MAY 22

1	Name of Client	:	M/s Facor Power Limited, Bhadrak
			AAQ1- Near Admin Building Office
2	Sampling Location	:	AAQ2- Near Main Gate
			AAQ3- Near Wagon Tippler
3	Sampling Method	:	IS 5182(P-5) 1975 RA 2014
4	Date of Sampling	:	20.05.2022
5	Date of Analysis	:	21.05.2022 TO 25.05.2022
6	Monitoring Instruments	:	RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor
7	Sample Collected By	:	VCSPL Representative in presence of Client's Representative

				NAAQ	A	nalysis Res	ult
SL.No	Parameters Analyzed	Unit	Testing Methods	Standard	AAQ-1	AAQ-2	AAQ-3
1	Particulate matter (size less than10μm) or PM ₁₀	μg/m³	IS 5182 (P-22) 2006 RA 2017 Gravimetric Method	100	71.6	72.8	71.4
2	Particulate matter (size less than 10 μm) or PM _{2.5}	$\mu g / m^3$	IS 5182 (P-24) 2019 Gravimetric Method	60	43.8	45.6	44.6
3	Sulphur dioxide as SO ₂	μg / m³	IS 5182 (P-2) 2001 RA 2017 Improved West and Geake Method	80	13.8	14.2	14.6
4	Oxides of Nitrogen as NO _x	μg / m³	IS 5182 (P-6) 2006 RA 2017 Modified Jacob & Hochheiser Method (Na-Arsenite)	80	20.6	21.6	22.4
5	Carbon Monoxide as CO	mg / m³	IS 5182 (P-10) 2006 RA 2017 NDIR Spectroscopy	4	0.44	0.45	0.46
6	Ozone as O ₃	μg / m ³	IS 5182 (P-9) 1974 RA 1986 Chemical Method	100	4.6	6.1	6.4
7	Ammonia as NH ₃	$\mu g / m^3$	IS 5182 (P-25) 2018 NDIR Spectroscopy	400	BDL	BDL	BDL
8	Lead as Pb	$\mu g / m^3$	IS 5182 (P-22) 2004 AAS method after sampling	1	BDL	BDL	BDL
9	Nickel as Ni	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	20	BDL	BDL	BDL
10	Arsenic as As	ng / m ³	IS 5182 (P-22) 2004 AAS method after sampling	6	BDL	BDL	BDL
11	Benzene as C ₆ H ₆	μg / m ³	IS 5182 (P-11) 2006 Absorption & Desorption followed by GC analysis	5	BDL	BDL	BDL
12	Benzo –a-Pyrene	ng/m³	IS 5182 (P-12) 2004 Solvent extraction followed by Gas Chromatography analysis	1	BDL	BDL	BDL

BDL Values: SO₂< 4 μg/m³, NO_X< 9 μg/m³, O₃<4 μg/m³, Ni<0.01 ng/m³, As < 0.001 ng/m³, C₆H₆<0.001 μg/m³, BaP<0.002 ng/m³, Pb $< 0.001 \, \mu g/m^3$, CO $-< 0.1 \, mg/m^3$









Environmental & Social Study

isiontek Consultancy Services Pvt. I
(Committed For Better Environment)

(Laborato

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017 Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy
- Agricultural Development
- Information Technology
- Public Health Engineering
- Mineral/Sub-Soil Exploration

• Mine Planning & Design

Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab & Microbiology Lab

Ref: Envlab/22/R-4883 Date: -06.07.2022

AMBIENT AIR QUALITY (CORE ZONE) MONITORING REPORT- JUNE 2022

1	Name of Client	:	M/s Facor Power Limited, Bhadrak
			AAQ1- Near Admin Building Office
2	Sampling Location	:	AAQ2- Near Main Gate
			AAQ3- Near Wagon Tippler
3	Sampling Method	:	IS 5182(P-5) 1975 RA 2014
4	Date of Sampling		10.06.2022
5	5 Date of Analysis : 11.06.20		11.06.2022 TO 17.06.2022
6	Monitoring Instruments	ring Instruments : RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor	
7	Sample Collected By	llected By : VCSPL Representative in presence of Client's Representative	

				NAAQ	Analysis Result		
SL.No	Parameters Analyzed	rameters Analyzed Unit Testing Methods		Standard	AAQ-1	AAQ-2	AAQ-3
1	Particulate matter (size less than10μm) or PM ₁₀	μg / m ³	IS 5182 (P-22) 2006 RA 2017 Gravimetric Method	100	73.8	74.6	72.8
2	Particulate matter (size less than 10μm) or PM _{2.5}	μg / m ³	IS 5182 (P-24) 2019 Gravimetric Method	60	45.2	48.2	43.6
3	Sulphur dioxide as SO ₂	$\mu g / m^3$	IS 5182 (P-2) 2001 RA 2017 Improved West and Geake Method	80	14.6	15.4	13.8
4	Oxides of Nitrogen as NO _x	μg / m³	IS 5182 (P-6) 2006 RA 2017 Modified Jacob & Hochheiser Method (Na-Arsenite)	80	22.8	23.2	24.6
5	Carbon Monoxide as CO	mg/m³	IS 5182 (P-10) 2006 RA 2017 NDIR Spectroscopy	4	0.42	0.48	0.51
6	Ozone as O ₃	μg / m ³	IS 5182 (P-9) 1974 RA 1986 Chemical Method	100	4.2	5.4	6.2
7	Ammonia as NH ₃	$\mu g / m^3$	IS 5182 (P-25) 2018 NDIR Spectroscopy	400	BDL	BDL	BDL
8	Lead as Pb	$\mu g / m^3$	IS 5182 (P-22) 2004 AAS method after sampling	1	BDL	BDL	BDL
9	Nickel as Ni	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	20	BDL	BDL	BDL
10	Arsenic as As	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	6	BDL	BDL	BDL
11	Benzene as C ₆ H ₆	μg / m³	IS 5182 (P-11) 2006 Absorption & Desorption followed by GC analysis	5	BDL	BDL	BDL
12	Benzo –a-Pyrene	ng/m³	IS 5182 (P-12) 2004 Solvent extraction followed by Gas Chromatography analysis	1	BDL	BDL	BDL

BDL Values: $SO_2 < 4 \mu g/m^3$, $NO_X < 9 \mu g/m^3$, $O_3 < 4 \mu g/m^3$, $Ni < 0.01 ng/m^3$, $As < 0.001 ng/m^3$, $C_6H_6 < 0.001 \mu g/m^3$, $BaP < 0.002 ng/m^3$, Pb $<0.001 \mu g/m^3$, CO $-<0.1 mg/m^3$





Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

Surface & Sub-Surface Investigation

Quality Control & Project Management

Renewable Energy

• Agricultural Development

● Information Technology

Public Health Engineering

Mine Planning & Design

Mineral/Sub-Soil Exploration

Waste Management Services

Laboratory Services
Environment Lab
Food Lab
Material Lab
Soil Lab
Mineral Lab
Mineral Lab
Microbiology Lab

Ref: Envlab/22/R-6311

Infrastructure Enginering

Water Resource Management

Environmental & Social Study

Date: -10.08.2022

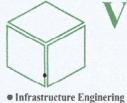
AMBIENT AIR QUALITY (CORE ZONE) MONITORING REPORT- JULY 2022

1	Name of Client		M/s Facor Power Limited, Bhadrak
2	Sampling Location	:	AAQ1- Near Admin Building Office AAQ2- Near Main Gate AAQ3- Near Wagon Tippler
3	Sampling Method	:	IS 5182(P-5) 1975 RA 2014
4	Date of Sampling	:	13.07.2022
5	Date of Analysis	:	14.07.2022 to 21.07.2022
6	Monitoring Instruments	1:	RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor
7	Sample Collected By	:	VCSPL Representative in presence of Client's Representative

				NAAO	Analysis Result			
SL.No	Parameters Analyzed	Unit	Testing Methods	Standard	AAQ-1	AAQ-2	AAQ-3	
1	Particulate matter (size less than 10 µm) or PM ₁₀	μg / m ³	IS 5182 (P-22) 2006 RA 2017 Gravimetric Method	100	51.6	52.8	50.6	
2	Particulate matter (size less than 10μm) or PM _{2.5}	μg / m³	IS 5182 (P-24) 2019 Gravimetric Method	60	28.4	29.6	26.2	
3	Sulphur dioxide as SO ₂	μg / m³	IS 5182 (P-2) 2001 RA 2017 Improved West and Geake Method	80	12.4	13.2	12.8	
4	Oxides of Nitrogen as NO _x	μg / m ³	IS 5182 (P-6) 2006 RA 2017 Modified Jacob & Hochheiser Method (Na-Arsenite)	80	16.4	16.6	17.2	
5	Carbon Monoxide as CO	mg/m³	IS 5182 (P-10) 2006 RA 2017 NDIR Spectroscopy	4	0.24	0.22	0.21	
6	Ozone as O ₃	μg/m³	IS 5182 (P-9) 1974 RA 1986 Chemical Method	100	3.8	4.2	4.6	
7	Ammonia as NH ₃	μg / m ³	IS 5182 (P-25) 2018 NDIR Spectroscopy	400	BDL	BDL	BDL	
8	Lead as Pb	$\mu g / m^3$	IS 5182 (P-22) 2004 AAS method after sampling	1	BDL	BDL	BDL	
9	Nickel as Ni	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	20	BDL	BDL	BDL	
10	Arsenic as As	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	6	BDL	BDL	BDL	
11	Benzene as C ₆ H ₆	μg / m ³	IS 5182 (P-11) 2006 Absorption & Desorption followed by GC analysis	5	BDL	BDL	BDL	
12	Benzo –a-Pyrene	ng/m³	IS 5182 (P-12) 2004 Solvent extraction followed by Gas Chromatography analysis	1	BDL	BDL	BDL	

BDL Values: SO₂< 4 μg/m³, NO₂< 9 μg/m³, O₃<4 μg/m³, Ni<0.01 ng/m³, As < 0.001 ng/m³, C₆H₆<0.001 μg/m³, BaP<0.002 ng/m³, Pb<0.001 μg/m³,

CO-<0.1 mg/m³ Reviewed By



Environmental & Social Study

isiontek Consultancy Services Pvt. I

(Committed For Better Environment)

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

Surface & Sub-Surface Investigation

Quality Control & Project Management

Renewable Energy

Agricultural Development

• Information Technology

• Public Health Engineering

Mine Planning & Design

Mineral/Sub-Soil Exploration

Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab Microbiology Lab

Ref: Envlab/22/R-7161

Date: -05.09.2022

AMBIENT AIR QUALITY (CORE ZONE) MONITORING REPORT- AUG- 22

-		TIT (CORE ZONE) WONTTOKING REPORT- AUG- 22
1	Name of Client	M/s Facor Power Limited, Bhadrak
		AAQ1- Near Admin Building Office
2	Sampling Location	AAQ2- Near Main Gate
		AAQ3- Near Wagon Tippler
3	Sampling Method	IS 5182(P-5) 1975 RA 2014
4	Date of Sampling	20.08.2022
5	Date of Analysis	22.08.2022 TO 26.08.2022
6	Monitoring Instruments	RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor
7	Sample Collected By	VCSPL Representative in presence of Client's Representative

SL.No	Parameters Analyzed	Unit	Testing Methods	NAAQ	Analysis Result		
		Cint	resting wiethous	Standard	AAQ-1	AAQ-2	AAQ-3
1	Particulate matter (size less than10µm) or PM ₁₀	$\mu g / m^3$	IS 5182 (P-22) 2006 RA 2017 Gravimetric Method	100	71.6	72.8	71.4
2	Particulate matter (size less than 10μm) or PM _{2.5}	μg / m ³	IS 5182 (P-24) 2019 Gravimetric Method	60	43.8	45.6	44.6
3	Sulphur dioxide as SO ₂	$\mu g / m^3$	IS 5182 (P-2) 2001 RA 2017 Improved West and Geake Method	80	13.8	14.2	14.6
4	Oxides of Nitrogen as NO _x	μg / m³	IS 5182 (P-6) 2006		20.6	21.6	22.4
5	Carbon Monoxide as CO	mg/m³	IS 5182 (P-10) 2006 RA 2017 NDIR Spectroscopy	4	0.44	0.45	0.46
6	Ozone as O ₃	$\mu g / m^3$	IS 5182 (P-9) 1974		4.6	6.1	6.4
7	Ammonia as NH ₃	$\mu g / m^3$	IS 5182 (P-25) 2018 NDIR Spectroscopy	400	BDL	BDL	BDL
8	Lead as Pb	$\mu g / m^3$	IS 5182 (P-22) 2004 AAS method after sampling	1	BDL	BDL	BDL
9	Nickel as Ni	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	20	BDL	BDL	BDL
10	Arsenic as As	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	6	BDL	BDL	BDL
11	Benzene as C ₆ H ₆	μg / m³	IS 5182 (P-11) 2006 Absorption & Desorption followed by GC analysis	5	BDL	BDL	BDL ,
12	Benzo –a-Pyrene	ng/m³	IS 5182 (P-12) 2004 Solvent extraction followed by Gas Chromatography analysis	1	BDL	BDL	BDL

BDL Values : SO₂< 4 μg/m³, NO_X< 9 μg/m³, O₃<4 μg/m³, Ni<0.01 ng/m³, As < 0.001 ng/m³, C₆H₆<0.001 ng/m³ BaP<0.002 ng/m³, Pb<0.001 μg/m³,

CO-<0.1 mg/m³

Reviewed

• Infrastructure Enginering

Water Resource Management

• Environmental & Social Study

isiontek Consultancy Services Pvt. I
(Committed For Better Environment)

(Laborate

Certified for: ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by: NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

Surface & Sub-Surface Investigation

Quality Control & Project Management

• Renewable Energy

Agricultural Development

Information Technology

• Public Health Engineering

Mine Planning & Design

 Mineral/Sub-Soil Exploration Waste Management Services

Laboratory Services Environment Lab Food Lab Material Lab Soil Lab Mineral Lab

& Microbiology Lab

Ref: Envlab/22/R-8026

Date: -07.10.2022

AMBIENT AIR OUALITY (CORE ZONE) MONITORING REPORT- SEPT- 22

1	Name of Client	:	M/s Facor Power Limited, Bhadrak
			AAQ1- Near Admin Building Office
2	Sampling Location		AAQ2- Near Main Gate
			AAQ3- Near Wagon Tippler
3	Sampling Method		IS 5182(P-5) 1975 RA 2014
4	Date of Sampling		28.09.2022
5	Date of Analysis		29.09.2022 TO 01.10.2022
6	Monitoring Instruments	:	RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor
7	Sample Collected By	:	VCSPL Representative in presence of Client's Representative

SL.No				NAAO	Analysis Result		
	Parameters Analyzed U	Unit	Testing Methods	Standard	AAQ-1	AAQ-2	AAQ-3
1	Particulate matter (size less than 10 µm) or PM ₁₀	$\mu g / m^3$	IS 5182 (P-22) 2006 RA 2017 Gravimetric Method	100	70.8	71.6	70.6
2	Particulate matter (size less than 10 μm) or PM _{2.5}	$\mu g / m^3$	IS 5182 (P-24) 2019 Gravimetric Method	60	42.4	43.6	43.2
3	Sulphur dioxide as SO ₂	$\mu g / m^3$	IS 5182 (P-2) 2001 RA 2017 Improved West and Geake Method	80	13.2	14.2	14.0
4	Oxides of Nitrogen as NO _x	μg / m ³	IS 5182 (P-6) 2006 RA 2017 Modified Jacob & Hochheiser Method (Na-Arsenite)	80	20.4	21.4	21.2
5	Carbon Monoxide as CO	mg/m³	IS 5182 (P-10) 2006 RA 2017 NDIR Spectroscopy	4	0.43	0.44	0.45
6	Ozone as O ₃	$\mu g / m^3$	IS 5182 (P-9) 1974 RA 1986 Chemical Method	100	4.3	5.8	6.0
7	Ammonia as NH ₃	μg / m ³	IS 5182 (P-25) 2018 NDIR Spectroscopy	400	BDL	BDL	BDL
8	Lead as Pb	μg / m ³	IS 5182 (P-22) 2004 AAS method after sampling	1	BDL	BDL	BDL
9	Nickel as Ni	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	20	BDL	BDL	BDL
10	Arsenic as As	ng/m³	IS 5182 (P-22) 2004 AAS method after sampling	6	BDL	BDL	BDL
11	Benzene as C ₆ H ₆	μg / m ³	IS 5182 (P-11) 2006 Absorption & Desorption followed by GC analysis	5	BDL	BDL	BDL
12	Benzo –a-Pyrene	ng/m³	IS 5182 (P-12) 2004 Solvent extraction followed by Gas Chromatography analysis	1	BDL	BDL	BDL

BDL Values: $SO_2 < 4 \mu g/m^3$, $NO_X < 9 \mu g/m^3$, $O_3 < 4 \mu g/m^3$, $Ni < 0.01 ng/m^3$, $As < 0.001 ng/m^3$, $C_6 H_6 < 0.001 \mu g/m^3$, $BaP < 0.002 ng/m^3$, $Pb < 0.001 \mu g/m^3$, Pb < 0.001







Annexure-6

ପର୍ବସାଧାରଣ ବିଞ୍ଚପ୍ତି

ଏତକ୍ୱାରା ସହିସାଧାରଣଙ୍କ ଅକଗତି ନିମ୍ନରେ କଣାଇ ଦିଆଯାଇଅଛି ଯେ, ମେସର୍ଷ ଫେକର ପାଖାର ଲିମିଟେକ, କି.ପି.ନଗର, ରାଦିଆ, ଇଦ୍ରକରେ କୋଇଲାଭିରିକ ଅର୍ମାଲ ପାଖାର ପ୍ରାଣ୍ଣ କଥାଲେ ନିମିଛ କଣଲ ଓ ପରିକେଶ ସୁରକ୍ଷା ମଣଣାଳୟକୁ ପରିକେଶ ସ୍ୱାକ୍ତିପ୍ରାସ୍ତ ବିଦି ରାଜ୍ୟ ପରିକେଶ ମଉଣାଳୟରେ ପ୍ରାସ୍ତ ହେବ ଏବଂ ଏହା ପ୍ରତିକେଶ ମଉଣାଳୟରେ ପ୍ରାସ୍ତ ହେବ ସାଇଟ ।



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

Date - 11 - 05-2009.

THE SAMAT

[bottom conners of the



Ref. No: FPL/BDK/ 903/10-11

Date : 27.12.10



To

The Collector & District Magistrate, Bhadrak

Sub: Public hearing in respect of the environmental assessment for M/s. Facor Power Ltd. for Enhancement of capacity of Power plant from 45MW to 100MW at Randia, Bhadrak.

Ref: Letter of State Pollution Control Board, Odisha No-22018IND/II/PH /486, Dt: 24.12.10

Dear Sir.

M/s. Facor Power Ltd. has submitted an application for public hearing to State Pollution Control Board, Odisha for enhancement of its ongoing project of 45MW to 100MW at Randia, Bhadrak. As advised by SPCB, Odisha vide their letter as mentioned above, we are submitting herewith one hard copy and one soft copy of the above EIA/EMP report along with executive summary of EIA/EMP report for reference and needful action at your end, as advised by SPCB, Odisha.

You are requested to kindly acknowledge the receipt of the same and give it to us for our further submission to State Pollution Control Board.

Thanking You,

For Facor Power Ltd.

P. Sarangi

Sr. DGM (Power Plant)

End: (i) Soft & Hard copy of EIA/EMP report.

(ii) Xerox copy of the letter of SPCB for public hearing.

FACOR POWER LIMITED

Corp. & Read. Office: Compare One-Suite 401, Plot No. 5, Jasola, New Delhi -110 044, India - T -91 11 4070 1000 - F +91-11-4162 4880 - Ipidelhi@facorpower.in works: D.F. hegar, Randia-756 135, Dist. Bhadrak, Orissa, India - +91-6784-240 344 & 240 808 - F +91-6784-240 803 - Ipidek@facorgroup.in





FACOR POWER LIMITED

Ref. No: FPL/BDK/ SPCB/321/2022-23

Date: 30.09.2022

To.

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

Sub: Submission of Environment Statement for the year 2021-22 by M/s Facor Power Ltd., Randia, Bhadrak.

Sir,

With reference to the above cited subject, please find enclosed copy of Environmental Statement for the financial year ending 31st March, 2022 in Form-V by M/s Facor Power Limited for your kind perusal.

Thanking you,

Yours faithfully,

For Facor Power Ltd.

P. Sarangi

Factory Manager-PP

Copy to: The Regional Officer, SPCB, Balasore.

Sensitivity: Internal (C3

ENVIRONMENTAL STATEMENT REPORT

FOR THE FINANCIAL YEAR 2021-22

IN RESPECT OF

FACOR POWER LIMITED Randia, Bhadrak, Odisha.

FORM - V (See Rule – 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2020-21

PART - A

01. owner/occupier of the industry : At:D.P.Nagar, Po:Randia, operation

and address of the : M/s. FACOR Power Ltd

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

last Environmental : 28.09.2021 05. Date of

Statement submitted

PART - B

WATER CONSUMPTION & RAW MATERIAL CONSUMPTION

1.	Water Consumption	$M^3/day (Max.)$
	Process	110
	Industrial Cooling	2460
	Domestic (Potable)	80

2. Process Water Consumption

Name of the Products	Gene	ration	Process water consumption / unit of Output		
	20-21	21-22	20-21	21-22	
Power	273511 MWH	290377 MWH	3.10 m ³ /MW	2.71m³/MW	

3. Raw Material Consumption

Name of raw materials	Name of the product	Consumption of raw materials / unit of product output			
		20-21	21-22		
Coal	Power	0.96 T/MW	1.00T/MW		
LDO	Power	4 to 5 KL in every startup	4 to 5 KL in every startup		

PART - C

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

A: WATER Month of April 2021 to March 2022(average)

Sl. No.	Parameters	Quantity of Pollutant Discharged (load)	
		Service Water Sample Water	
01.	Color (Hazen)	<1.0	
02.	Odour	Agreeable	
03.	pH	7.81	
04.	Temperature (°C)	26	

05.	Total Suspended Solids (TSS)	40
06.	Oil & Grease	2.4
07.	Total Residual Chlorine	ND
08.	Free Ammonia (NH3)	ND
09.	Chemical Oxygen Demand (COD)	8.0
10.	Arsenic (As)	< 0.004
11.	BOD of 27 °C	2.4
12.	Hexavalent Chromium (Cr+6)	< 0.05
13.	Total Chromium (Cr)	0.26
14.	Copper (Cu)	< 0.05
15.	Zinc (Zn)	0.44
16.	Selenium (Se)	< 0.001
17.	Nickel (Ni)	<0.1
18.	Cyanide (CN)	ND
19.	Fluoride as F	0.64
20.	Dissolved Phosphates (P)	4.2
21.	Sulphide (S)	0.38
22.	Iron (Fe)	1.92
23.	Nitrate Nitrogen	7.8
24.	Phenolic compounds (C6H5OH)	< 0.001
25.	Sulphate as (SO4)	6.2
26.	Manganese (Mn)	0.032
27.	Total Coliform (MPN/100ml)	410
28.	Vanadium as V	< 0.05
29.	Cadmium (Cd)	< 0.03
30.	Lead (Pb)	< 0.2
31.	Mercury (Hg)	< 0.002

B. AIR April 2021 to March 2022(average)

Sl.No.	Location	Pollutant concentration			
		PM (mg/NM³)		SO_2 (mg/Nm ³)	NOx (mg/Nm ³)
01.	ESP outlet of CFBC	32.60		72.10	84.60
01.	Boiler	CO2 (%)		CO (%)	Hg (%)
		5.2		<0.1	0.011
02.	Ambient Air	PM 2.5 (μg/m³)	PM 10 (μg/m ³)	$SO_2 (\mu g/m^3)$	NOx (μg/m³)
		41.90	69.4	12.4	16.9

$\underline{PART - D}$

HAZARDOUS WASTE

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

(As specified under flazardou	s waste management and naverney
Hazardous Waste	Total Quantity

	20-21	21-22
Used Oil	0.84 KL	1.36 KL
Waste containing Oil	0.00 T	0.16 T
Spent Resin	1.60 KL	1.60 KL

PART- E

SOLID WASTE

Source	Total Quantity (MT)		
	20-21	21-22	
Fly ash from Silos	101236	114165	
Bottom ash from Boiler	16057	18599	

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 (21-22)	Characteristics of fly ash	Remarks
Fly ash & Bottom Ash	132764 MT	SiO2 – 65% Al2O3 – 22% Fe2O3 – 6% CaO – 2.66% MgO – 2.03% TiO2 – 0.81% P – 0.023% S – 0.48%	We have provided 800M³ volume of 3 nos of ash silo for CFBC Boiler and we have pneumatic ash handling system to control fugitive emission. Then ash is unloaded from silo into trucks and utilize for Fly ash brick manufacturing plants and low lying area land filling etc. We are constantly achieving 100% utilization of fly ash & bottom ash.

PART-G

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

1. FPL has taken adequate pollution control measures at source level, so that the operation of the plant does not have any adverse impact on natural resources and environment.

vi)	Energy consumption for Pollution control devices		15,81,895/-
vii)	Expenditure for maintenance of AAQMS, CEMS & data transmission		4,50,000/-
viii)	ESP & Bag filter Maintenance cost and expenditure for Dust suppression system	:	4,86,000/-
ix)	Expenditure for Plantation maintenance work		7,38,760/-
x)	Engagement of Labor for house keeping	:	22,16,280/-
xi)	Engagement of Water Tanker for dust suppression	:	2,16,000/-

Investment Proposal for Environmental Protection FY 2022-23

- Installation of Online Continuous Effluent Monitoring Station Rs. 8,00,000/-
- Installation of Sox & NOx Analyzers for CEMS Rs.2,010,000/-
- Installation of Temperature, Velocity, Flow measurement in CEMS- Rs. 8, 50,000/-
- Installation of Digital Flow meter in intake well Rs. 12,00,000/-
- Installation of Sox & NOx analyzers in CAAQMS- Rs.15,000,000/-

PART-I

Any other particulars for improving the quality of the environment

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

