

Date: 23 /05/2024

To,

The Regional Officer,
Ministry of Environment, Forest & Climate Change,
Room No. 407, Aranya Bhawan, Near CH-3 Circle, Sector-10A
Gandhinagar, Gujarat-382010

Subject: Half Yearly Compliance to Environmental Clearance of Welspun Metallics Ltd.

Ref.: Environmental Clearance F.No. J-11011/136/2015-IA-II (I) dated 22/03/2021.

Dear Sir,

With reference to the above subject, we are submitting herewith the Half Yearly Environment Clearance Compliance report of Welspun Metallics Ltd. Anjar, Kutch, Gujarat for the period of October 2023 to March 2024.

Welspun Metallics Ltd. has been commissioned and started the production of its state of the art Blast Furnace (0.5 MTPA), Sinter Plant (0.72MTPA) on 21/07/2022. We have also commissioned & started the production of Coke oven plant & Air Separation unit. Rest of the facilities mentioned in Environmental clearance will be stated in coming days.

Thanking You.

Yours faithfully,

For Welspun Metallics Ltd.,



Anand Pratap Singh
Dy. Manager (Environment & ESG)



Encl: As above

CC:

- 1) Gujarat Pollution Control Board, Parayavaran Bhawan Sector-10-A, Gandhinagar
- 2) Regional Office, Central Pollution Control Board, Parivesh Bhawan, Aatmajyoti Ashram Road, Opp.- VMC Ward office No.10, Subhanpura, Vadodara, Gujarat-390023.

Welspun Metallics Limited

7th Floor, Welspun House, Kamala Mills Compound, Lower Parel (West), Mumbai-400013, India.

Tel: +91 22 6613 6000 /2490 8000, F: +91 22 2490 8020

E-mail: companysecretary_wml@welspun.com Website: www.welspun.com

Registered Address: "Welspun City", Survey No.618/P,619/P,620/1,623 to 631/P, 632/P, 673 & 890.

Village-Versamedi, Taluka- Anjar- 370 110, Dist. Kutch (Gujarat) India T: 02826 662222

Corporate Identity Number: U27100GJ2020PLC115168

Half Yearly Environment Clearance Compliance Report for M/s. Welspun Metallics Limited (WML) located at Village: Versamedi, Tehsil: Anjar, District: Kutch, Gujarat. (EC F No. J-11011/136/2015-IA-II(I) dated 22nd March 2021)

Sr. No.		Conditions					Compliance
Specific Condition							
Sr. No.	Name of facility	Existing Units		Proposed units		Total Units (Existing +Proposed)	
		configuration	Production MTPA	configuration	Production MTPA	configuration	Production MTPA
1.	Coke Oven & By products Recovery Plant (COBP)	2 x 58 No. Ovens	1.37	--	--	2 x 58 No. Ovens	1.37
2.	Sinter plant	1x496 m ²	5.28	--	--	1x496 m ²	5.28
3.	Blast Furnace with matching pig casting facility (Along with Pig casting Machine of Capacity)	1x 4300 m ³	3.34	--	--	1x 4300 m ³	3.34
4.	Steel Melt Shop	BOF-2 x 165 T LF- 2 x 165 T VD- 1x 165 T	3.1	(Un proposed) BOF-1x 165 T LF- 1 x 165 T	(-)1.55	BOF- 1x 165 T LF- 1 x 165 T VD- 1x 165 T	1.55
5	Continuous slab casting	1x1 Strand	1.6	--	--	1x1 Strand	1.6 MTPA Slab
6	Continuous Billet casting	1x 6 Stand	1.4	(Un proposed) (1 x 6 stand)	(-)1.4	-	0.0
7	Rolling Mill Plate & Coil Mill	1 unit	1.37	1 unit	(-)1.37	-	0.0
8	Captive Power Plant	Gas based	200 MW	--	--	Gas based	200 MW



Point noted.

Point noted.



[illegible]

Sr No.	Item	Total Capacity as per EC recommended upper para 7 (ii)	Facilities/ Utilities after amendment in EC and subsequent partial transfer of DI Pipe Plant from EC of Parent Company (WML) to New Company (WDI) Parent Company (WML)	Compliance status
A	Title of the Project	Installation of 3.0 MTPA Integrated Steel Plant including 1.5 MTPA Cement Plant and 200MW CPP by M/s Welspun Metallics Ltd., located at Village Versamedi, Tehsil Anjar, District Kutch, Gujarat	Installation of 3.0 MTPA Integrated Steel Plant including 1.5 MTPA Cement Plant and 200MW CPP by M/s Welspun Metallics Ltd., located at Village Versamedi, Tehsil Anjar, District Kutch, Gujarat	
B	Location	Village Versamedi, Tehsil Anjar, District Kutch, Gujarat Latitude- 23° 6'23"N to 23° 7'53"N Longitude-70° 4'3"E to 70° 5'56"E	Village Versamedi, Tehsil Anjar, District Kutch, Gujarat Latitude- 23° 6'23"N to 23° 7'53"N Longitude-70° 4'3"E to 70° 5'56"E	Noted .
C	Units/Facilities			
1.	Coke Ovens & By-products Recovery Plant (COBP)	2 X 58 No. Ovens -1.37 MTPA Gross Coke	2 X 58 No. Ovens -1.37 MTPA Gross Coke	Welspun Metallics Ltd (WML) has installed the coke oven plant of Capacity 0.25 MTPA.
2.	Sinter Plant	1 x 496 sq m -5.28 MTPA	1 x 496 sq m -5.28 MTPA	Welspun Metallics Ltd (WML) has installed the Sinter Plant of capacity 0.72MTPA.
3.	Blast Furnace	1 x 4300 m3- 3.34 MTPA Hot Metal	1 x 4300 m3- 3.34 MTPA Hot Metal	Welspun Metallics Ltd (WML) has installed the Blast Furnace of capacity 0.5 MTPA.
4.	Steel Melt Shop	BOF - 2 x 165 T LF - 2 x 165 T VD - 1 x 165 T 1.55 MTPA	BOF - 1 x 165 T LF - 1 x 165 T VD - 1 x 165 T 1.55 MTPA	Noted.
5.	Continuous Casting	Slab caster - 1 x 1 Strand 1.6 MTPA	Slab caster - 1 x 1 Strand 1.6 MTPA	Noted.
5.	DI Pipe Plant (Including Induction Furnaces, Converter, Centrifugal Casting Machine, Annealing Furnace, Finishing Line.)	2 X 0.25 MTPA-0.5 MTPA	-	DI Pipe Plant (Including Induction Furnaces, Converter, Centrifugal Casting Machine, Annealing Furnace, and Finishing Line.) has already been commissioned & started Production.
7.	Foundry Shop for Metal Fitting and other casting using Heating and Melting Furnace (Induction Furnace) and Sand Moulding Facility	0.1 MTPA	0.1 MTPA	Noted.
3.	Lime/dolo Calcining	2 x 600 TPD	1 x 600 TPD	Noted.



Plant	1 x 600 TPD	0.17 MTPA	0.17 MTPA	Noted.	
9.	Power Plant	2 X 100 MW (Gas based) 165 MW BF-TRT, CDQ & Sinter Cooler 35 MW	2 X 100 MW (Gas based) 165 MW BF-TRT, CDQ & Sinter Cooler 35 MW	Noted.	
10.	Cement Grinding unit	1.5 MTPA	1.5 MTPA	Noted.	
D	Process Description	• Production of coke in Coke Ovens • Production of Sinter in Sinter plant • Production of Steel through BF-BOF route, with Blast Furnace having hot metal production capacity of 3.34 MTPA followed by 1.6 MTPA slab casting • Power generation through waste heat recovery. • Cement Grinding unit based on BF Slag • Production of DI Pipes using Blast furnace Hot metal from WML followed by desulphurization (if required) and scrap charging • Superheating of molten metal in induction furnace, • Magnesium treatment in convertor; • Centrifugally casting of pipes using molten metal in CCMs; • Heat treatment in annealing furnace to give ductility to the casted pipes. • Cement lining, zinc and bitumen coatings & stampings	• Production of coke in Coke Ovens • Production of Sinter in Sinter plant • Production of Steel through BF-BOF route, with Blast Furnace having hot metal production capacity of 3.34 MTPA followed by 1.6 MTPA slab casting • Power generation through waste heat recovery. • Cement Grinding unit based on BF Slag	Noted.	
E	Land Requirement	231.58 ha (77.2 ha -33.3% Greenbelt)	207.08 ha (68.33 ha -33.3% Greenbelt)	Noted.	
F	Raw Material	• Iron Ore (Fines) – 4.08 MTPA • Iron ore (Lump) – 1.91 MTPA • Coking Coal – 2.01 MTPA • Non Coking Coal – 0.09 MTPA • PCI Coal – 0.64 MTPA • Limestone – 1.22 MTPA • Dolomite – 0.51 MTPA • Steel scrap-0.08 MTPA	• Iron Ore (Fines) – 4.08 MTPA • Iron ore (Lump) – 1.88 MTPA • Coking Coal – 2.01 MTPA • Non Coking Coal – 0.09 MTPA • PCI Coal – 0.64 MTPA • Limestone – 0.92 MTPA • Dolomite – 0.41 MTPA • Calced lime-600 TPAS	Noted.	



		• Zinc wire-2600 TPA • Fe-si-16800 TPS • Mg-6600 TPA • Calcined Lime-600 TPA			
G	Water Requirement	47232 m ³ /day (1755 m ³ /hr)		37224 m ³ /day	Noted.
H	Power Requirement	211 MW		195 MW	Noted.
I	Fuel Requirement	• Coke Oven gas (COG) – 48127 Nm³/hr • BF Gas (BFG) – 587155 Nm³/hr • BOF Gas (BOFG) – 28310 Nm³/hr • Propane – 20 TPD • Fuel Oil – 600 TPD	• Coke Oven gas (COG) – 48127 Nm³/hr • BF Gas (BFG) – 587155 Nm³/hr • BOF Gas (BOFG) – 14155 Nm³/hr • Propane – 20 TPD		Noted.
J	Pollutants	PM – 273.1 Kg/hr SO ₂ – 551.8 Kg/hr NO _x – 869.3 Kg/hr	PM – 258.9 Kg/hr SO ₂ – 547 Kg/hr NO _x – 862 Kg/hr		Noted.
K	Pollution Mitigation Measures				
1	Air Pollution Control	• Dry fogging and bag filter based DE system in material handling • Charging and pushing Emission control in coke ovens • Electrostatic Precipitator (ESP) based process gas cleaning in Sinter plant and CPP • ESP based DE systems in BF Cast house, stock house and SMS • Bag filter based DE system • low NO_x oxy-fuel burners in Annealing furnaces	• Dry fogging and bag filter based DE system in material handling • Charging and pushing Emission control in coke ovens • low NO_x stage combustion burners • Electrostatic Precipitator (ESP) based process gas cleaning in Sinter plant and CPP • ESP based DE systems in BF Cast house, stock house and SMS	WML has installed the Dry Fogging system in material handling. Electrostatic Precipitator (ESP) based process gas cleaning and Bag Filter based DE system has already been installed.	
2	Noise Pollution Control	• Plugging leakages in high-pressure gas/air pipelines. • Reducing vibration of high speed rotating machines by regular monitoring of vibration and taking necessary steps.	• Plugging leakages in high-pressure gas/air pipelines. • Reducing vibration of high speed rotating machines by regular monitoring of vibration and taking necessary steps. • Design of absorber system for the shift office and pulpit operator's cabin.	Point noted and are being complied.	



	• Design of absorber system for the shift office and pulpit operator's cabin. • Noise absorber systems in pump houses. • Noise level at 1m from equipment will be limited to 85 dB (A). • The fans and ductwork will be designed for minimum vibration. • All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). • Periodical monitoring of work zone noise and outside plant premises. • Un-manned high noise zone will be marked as "High Noise Zone". • In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. • Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. • Workers exposed to noisy work place shall be provided with rotational duties. • All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.	• Noise absorber systems in pump houses. • Noise level at 1m from equipment will be limited to 85 dB (A). • The fans and ductwork will be designed for minimum vibration. • All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). • Periodical monitoring of work zone noise and outside plant premises. • Un-manned high noise zone will be marked as "High Noise Zone". • In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. • Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. • Workers exposed to noisy work place shall be provided with rotational duties. • All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.	
	• Design of absorber system for the shift office and pulpit operator's cabin. • Noise absorber systems in pump houses. • Noise level at 1m from equipment will be limited to 85 dB (A). • The fans and ductwork will be designed for minimum vibration. • All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). • Periodical monitoring of work zone noise and outside plant premises. • Un-manned high noise zone will be marked as "High Noise Zone". • In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. • Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. • Workers exposed to noisy work place shall be provided with rotational duties. • All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.	• Design of absorber system for the shift office and pulpit operator's cabin. • Noise absorber systems in pump houses. • Noise level at 1m from equipment will be limited to 85 dB (A). • The fans and ductwork will be designed for minimum vibration. • All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). • Periodical monitoring of work zone noise and outside plant premises. • Un-manned high noise zone will be marked as "High Noise Zone". • In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. • Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. • Workers exposed to noisy work place shall be provided with rotational duties. • All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.	

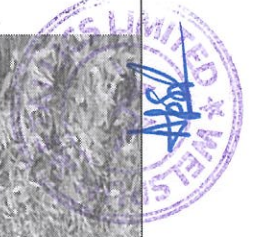


		and if detected, they will be provided with alternative duty.		
3	Effluents Generation And Management	• Zero Liquid Discharge outside plant boundary • Effluent generated from coke ovens would be separately treated in Biological Oxidation and Dephenolization (BOD) treatment unit for removal of phenolic compounds and cyanide • Cooling tower blow downs and treated effluent from BOD plant of coke ovens would be taken to the CETP for further treatment and reuse as make-up water. • Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level. • ETP shall be provided for DI plant exclusively with the provision of safe handling of hazardous waste generated in DI plant.	• Zero Liquid Discharge outside plant boundary • Effluent generated from coke ovens would be separately treated in Biological Oxidation and Dephenolization (BOD) treatment unit for removal of phenolic compounds and cyanide • Cooling tower blow downs and treated effluent from BOD plant of coke ovens would be taken to the CETP for further treatment and reuse • As make-up water. • Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and • Reduction of BOD level.	WML is a Zero Liquid Discharge plant. WML will treat the wastewater in our Common CETP of WIL. Hazardous waste generated are being collected and disposed through authorized recycler Registered in Gujarat Pollution Control Board.
4	Solid and Hazardous Wastes	• All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF. • BF/BOF Slag shall be utilized in house or in house or sold to cement manufacturers or used for road construction. • Coal tar sludge and BOD sludge would be recycled for coke making by mixing with the coal charge.	• All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF. • BF/BOF Slag shall be utilized in house or sold to cement manufacturers or used for road construction. • Coal tar sludge and BOD sludge would be recycled for coke making by mixing with the coal charge. • All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms	• All non-hazardous solid wastes are being utilized in-house in Sinter Plant. • BF Slag are being sold to cement manufacturers Industries. • All hazardous wastes are being handed over to authorized dealers for disposal as per statutory norms. 

		• All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms • 100% use/recycle of solid waste generated in DI plant shall be ensured.		
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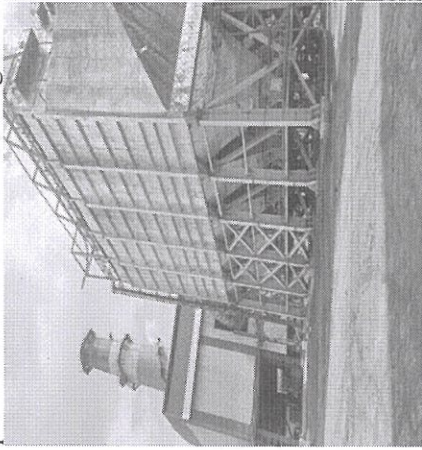


Sr. No.	Conditions	Compliance
Specific Condition		
1	CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant	We have already installed CEMS on all process stacks. The signal is being received in the plant control room for central control of APCDs installed in the plant. The CEMS has been connected to Gujarat Pollution Control Board & connection to Central Pollution Control board is under progress 
2	Ventilation system for odour control in bitumen coating area shall be included.	Not applicable, as Bitumen coating is not occurring at our site.
3	Zn dust monitoring in AAQ in DI plant shall. He carried out.	Not applicable, DI plant is not part of this project.
4	ETP shall be provided for DI plant exclusively with the provision of safe handling of hazardous waste generated in DI Plant..	Not applicable, DI plant is not part of this project.
5	PM level from the stacks shall be less than 30 mg/Nm3..	We are maintaining PM level less than 30 mg/Nm3 from the all process stack.
6	100 % use / recycle of solid waste generated in DI plant shall be ensured.	Not applicable, DI plant is not part of this project.
7	Tree density in Green belt shall be 2500 trees per ha. WDI Plant shall have 36.6 % green belt as committed by PP	WML is in the process to develop green belt in and around the plant area. 



8	Both plants shall have their independent green belts	Point noted and will be complied
9	Validity of split ECs shall be from Feb 2017.	Point noted.
10	More efficient bags such as PTFE bags shall be used in the filter bag house and designed for 150% of normal design air flow	More efficient bags such as PTFE bags are being used in the filter bag house and designed for 150% of normal design air flow.
11	PP shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system.	Point noted.
General condition		
I	Statutory compliance	
	The Environment Clearance(EC) granted to the project/activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/consent/permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.	Point noted and are being complied.
II	Air quality monitoring and preservation	
1	The project proponent shall install 24*7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Welspun Metallics Ltd. has installed 24*7 Continuous Emission Monitoring System at all the process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters. The CEMS has been connected to Gujarat Pollution Control Board & Central Pollution Control board.
2	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Point noted and are being complied. (Report for monitoring Fugitive emission from recognized laboratory has been attached.
3	The cameras shall be installed at suitable location for 24*7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.	Point noted.
4	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.	Sampling facility at process stacks has been provided as per CPCB guidelines for manual monitoring of emissions.



		 	M/s Welspun Metallics Ltd (WML) has installed ESP as well Bag Filters for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emissions standards.
5	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards		
6	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.		Point noted and will be complied.
7	Secondary emission control system shall be provided at SMS Converters.		Point noted and will be complied.
8	Sufficient number of mobile or stationary vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.		Point noted and will be complied.
9	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.		M/s Welspun Metallics Ltd (WML) is recycling & reusing iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the Sinter Plant.
10	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin		M/s Welspun Metallics Ltd (WML) is using leak proof trucks/dumpers carrying coal & other raw materials and cover them with tarpaulin.
11	Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).		Point noted and will be complied.
12	Land-based APC system shall be installed to control coke pushing emissions.		Point noted and will be complied.



13	Monitor CO, HC and O ₂ in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.	Point noted.
14	Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.	Point noted.
15	In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided to meet the prescribed standards.	Point noted.
16	The coke oven gas shall be subjected to desulphurization if the Sulphur content in the coal exceeds 1%.	Point noted.
17	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	Point noted.
18	Design the ventilation system for adequate air changes, as per prevailing norms for all tunnels, motor houses, Oil Cellars	Point noted.
19	The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter	Complied. M/s Welspun Metallics Ltd has installed dry Gas Cleaning Plant for Blast Furnace with bag filter.
20	Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke.	Waste Heat Recovery Boiler has been installed & Power being generated.
III	Water Quality monitoring and preservation	
1	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Noted. WML is a Zero Liquid Discharge Plant.
2	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	We are using fresh water from our sister company WIL.



3	The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated Iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time;
4	Adhere to 'Zero Liquid Discharge'
5	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
6	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
7	Tyre washing facilities shall be provided at the entrance of the plant gates.
8	CO2 injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning.
9	The project proponent shall practice rainwater harvesting to maximum possible extent.
10	Treated water from ETP of COBP shall not be used for coke quenching.
11	Water meters shall be provided at the inlet to all unit processes in the steel plants.



We have installed non recovery type coke oven plant. We have provided settling pond for the water coming from quenching tower & reusing the water from settling pond.

Noted and agreed to complied.

Domestic waste water of M/s WML is sent to M/s WIL for further treatment.

Point noted and being complied.

Point noted and Shall be complied.

Point noted.

Point noted and rain water are being stored to our Lagoon (Pond).

Point noted and will be complied.

Water meters have been installed to all unit process in the steel plant.



			
12	The project proponent shall make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.	Point noted and will be complied.	
IV. Noise monitoring and prevention			
1	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation And Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Point noted and are being complied & report has been attached as a part of six-monthly compliance.	
V. Energy Conservation measures			
1	The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces.	Point noted and will be complied.	
2	Coke Dry Quenching (CDQ) shall be provided for coke quenching for the coke oven plant.	Point noted.	
3	Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines.	Waste heat are being recovers from sinter plant cooler & Machines and are being sent to coke oven plant for coke drying.	
4	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.	Point noted and are being complied.	
5	Use hot charging of slabs and billets/blooms as far as possible.	Point noted and will be complied.	
6	Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300°C.	Point noted and being complied. We have already installed waste heat recovery boiler attached to coke oven plant.	
7	Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating furnaces and if feasible shall be installed.	Noted.	
8	Restrict Gas flaring to < 1%.	Point noted and will be complied.	
9	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;	Noted.	



10	Provide LED lights in their offices and residential areas.	The company has provided LED lights in the Plant, offices and residential areas.
11	Ensure installation of regenerative type burners on all reheating furnaces.	Noted.
VI.	Waste management	
1	An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.	Point noted.
2	Tar Sludge and waste oil shall be blended with coal charged in coke ovens.	Point noted and will be complied.
3	Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.	Point noted and being Practiced.
4	Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.	Point noted.
5	Used refractories shall be recycled as far as possible.	Point noted and will be complied.
6	SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.	Point noted.SMS plant is not installed yet and will be complied after installation & commissioning of SMS plant.
7	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.	Point noted and will be complied.
8	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.	Noted.
9	Kitchen waste shall be composted or converted to biogas for further use.	Point noted and will be complied.
VII.	Green Belt	
1	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.	Point noted and shall be complied.
VIII.	Public hearing and Human health issues	
1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Point noted and will be complied.
2	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	We are regularly providing Personal Protection Equipment (PPE) for all employees as per norms of the Factory Act.



3	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	Point noted and will be complied.
IX.	Corporate Environment Responsibility	
1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 30/09/2020.	Point noted and will be complied.
2	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/ forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy Of the board resolution in this regard shall be submitted to the MoEF & CC as a part of six-monthly report.	The company have a well laid Environmental Policy. Point noted and will be complied.
3	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Complied. A separate Environment Management Cell has been set up, with qualified personnel under the control of senior Executive, who is directly reporting the head of the plant.
X.	Miscellaneous	
1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Complied We have already Published the EC in two local newspapers
2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	The copies of the EC have been submitted to all relevant offices of the government.
3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	M/s WML is uploading the status of compliance of stipulated environment clearance conditions, including results of monitored data on the company website and updating the same on half yearly basis.
4	The project proponent shall monitor the criteria pollutants level namely; PM, SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Point noted and being complied.
5	The project proponent shall submit six- monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance	Point noted & Agreed to Complied.



	portal.		
6	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State pollution control Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	M/s WML has submit the environmental statement for financial year 2023-24 ending 31 st March in Form-V to the Gujarat State Pollution Control Board.	
7	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project	Welspun Metalics Ltd. (WML) has commissioned of its state-of-the-art Blast Furnace and Sinter plant on 21/07/2022. Coke oven Plant & Air separation unit has been commissioned.	
8	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee	Point noted and are being complied.	
9	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Point noted and will be complied.	
10	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.	
11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted.	
12	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted.	
13	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Point noted and will be complied.	
14	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.	





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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 51001/10/2023-24

Date: 20/10/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 1
01	Stack Attached to	---	---	Blast Furnace (Stove Stack)
02	Date of Sampling	---	---	11/10/2023
03	Time of Sampling	---	---	14:00
04	Air Pollution Control Measures	---	---	--
05	Stack Height	Meter	---	60
06	Stack Temperature	° C	---	126
07	Ambient Temperature	° C	---	31
08	Average Velocity of Flue Gases	M/Sec.	---	7.5
09	Isokinetic flow rate for P.M. Sampling	LPM	---	21
10	P.M.	mg/Nm ³	30	22.3
11	SO ₂	mg/Nm ³	200	20.9
12	NO _x	mg/Nm ³	150	24.7

Instruments Used : Ecotech stack monitoring kit ESS - 100,

Calibration Done On. : 26/12/2022

* Permissible limits as per GPCB CC&A



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Ref. No.: 50002/10/2023-24

Date: 20/10/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 2	Stack No. 3
01	Stack Attached to	---	---	Common Stack (Sinter & BF) Plant	Sinter (De-dusting system)
02	Date of Sampling	---	---	12/10/2023	12/10/2023
03	Time of Sampling	---	---	12.00	14:30
04	Air Pollution Control Measures	---	---	Common ESP	Bag Filter
05	Stack Height	Meter	---	70	50
06	Stack Temperature	° C	---	140	124
07	Ambient Temperature	° C	---	31	31
08	Average Velocity of Flue Gases	M/Sec.	---	7.9	7.5
09	Isokinetic flow rate for P.M. Sampling	LPM	---	23	20
10	P.M.	mg/Nm ³	30	26.4	24.9

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On. : 26/12/2022

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Ref. No.: 50004/10/2023-24

Date: 20/10/2023

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 4	Location No. 5	Location No. 6
01.	Location of Sampling	----	--	Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling	----	--	12/10/2023	12/10/2023	12/10/2023
03.	Time of sampling	Hr.	--	9.15	9.30	9.45
04.	Dominant Wind Direction (From)	----	--	SW	SW	SW
05.	Wind Speed	Km./Hr.	--	2 to 16	2 to 16	2 to 16
06.	Average flow rate during sampling	m ³ /minute	--	1.15	1.20	1.10
07.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
08.	PM 2.5	µg/m ³	60	24.6	25.1	23.7
09.	PM 10	µg/m ³	100	47.9	48.7	50.4
10.	Measured Concentration of SO ₂	µg/m ³	80	18.6	17.5	16.8
11.	Measured Concentration of NO ₂	µg/m ³	80	16.9	19.7	19.8

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009

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Ref. No.: 50004/10/2023-24

Date: 20/10/2023

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettallics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 4	Location No. 5	Location No. 6
01.	Location of Sampling	----	--	Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling	----	--	12/10/2023	12/10/2023	12/10/2023
03.	Time of sampling	Hr.	--	9.15	9.30	9.45
04.	Dominant Wind Direction (From)	----	--	SW	SW	SW
05.	Wind Speed	Km /Hr.	--	2 to 16	2 to 16	2 to 16
06.	Average flow rate during sampling	m ³ /minute	--	1.15	1.20	1.10
07.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
08.	PM 2.5	µg/m ³	60	24.6	25.1	23.7
09.	PM 10	µg/m ³	100	47.9	48.7	50.4
10.	Measured Concentration of SO ₂	µg/m ³	80	18.6	17.5	16.8
11.	Measured Concentration of NO ₂	µg/m ³	80	16.9	19.7	19.8

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.


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Ref. No. : 51006/10/2023-24

Date: 20/10/2023

AMBIENT NOISE LEVEL MONITORING REPORTS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 22/09/2023

Sample Collected by : Royal Environment

Sr. No.	Location of Sampling	Permissible Limits dB(A) Day Time	Results in dB(A) (Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A) Night Time	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM
Monitoring is carried out during			01:30 - 02:30 PM		01:30 - 02:30 AM
01.	Nr. BF Area	75	70.2	70	55.2
02.	Nr. Sinter Plant	75	71.3	70	56.7
03.	Nr. Coke Oven Unit	75	68.9	70	54.8
04.	Nr. Oxygen Plant	75	69.2	70	58.6
05.	Nr. Admin Office	75	66.8	70	58.6

CPCB Standards			
Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Instruments used : Sound level meter, Model : SL-4030 (Lutron), Calibration Done on : 04/03/2023


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Ref. No.: 101/11/2023-24

Date: 30/11/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 1	Stack No. 2
01	Stack Attached to	---	---	Blast Furnace (Stove Stack)	Blast Furnace (Stock House)
02	Date of Sampling	---	---	20/11/2023	20/11/2023
03	Time of Sampling	---	---	11:00	12:30
04	Air Pollution Control Measures	---	---	--	--
05	Stack Height	Meter	---	60	70
06	Stack Temperature	° C	---	129	58
07	Ambient Temperature	° C	---	30	31
08	Average Velocity of Flue Gases	M/Sec.	---	78.0	6.8
09	Isokinetic flow rate for P.M. Sampling	LPM	---	22	21
10	P.M.	mg/Nm ³	30	23.9	11.9
11	SO ₂	mg/Nm ³	200	21.9	2.4
12	NO _x	mg/Nm ³	150	26.8	10.7

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On. : 26/12/2022


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Ref. No.: 102/11/2023-24

Date: 30/11/2023

REPORT OF STACK EMISSION ANALYSIS

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Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

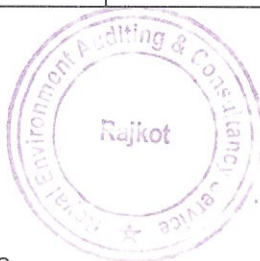
Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 3	Stack No. 6
01	Stack Attached to	---	---	Blast Furnace (Cast House)	Coke Oven Plant
02	Date of Sampling	---	---	20/11/2023	20/11/2023
03	Time of Sampling	---	---	13:00	16:00
04	Air Pollution Control Measures	---	---	--	Chargin & Pushing ECS
05	Stack Height	Meter	---	70	56
06	Stack Temperature	° C	---	57	101
07	Ambient Temperature	° C	---	31	31
08	Average Velocity of Flue Gases	M/Sec.	---	7.5	6.8
09	Isokinetic flow rate for P.M. Sampling	LPM	---	21	20
10	P.M.	mg/Nm ³	30	12.7	19.3
11	SO ₂	mg/Nm ³	200	1.9	22.6
12	NO _x	mg/Nm ³	150	18.2	35.2

Instruments Used : Ecotech stack monitoring kit ESS - 100,

Calibration Done On : 26/12/2022

* Permissible limits as per GPCB CC&A



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Ref. No.: 602/11/2023-24

Date: 30/11/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 4	Stack No. 5
01	Stack Attached to	---	---	Sinter Plant	Sinter (De-dusting system)
02	Date of Sampling	---	---	11/12/2023	20/11/2023
03	Time of Sampling	---	---	15:00	14:00
04	Air Pollution Control Measures	---	---	Common ESP	Bag Filter
05	Stack Height	Meter	---	70	50
06	Stack Temperature	° C	---	120	112
07	Ambient Temperature	° C	---	25	30
08	Average Velocity of Flue Gases	M/Sec.	---	7.1	8.9
09	Isokinetic flow rate for P.M. Sampling	LPM	---	22	21
10	P.M.	mg/Nm ³	30	27.6	25.4

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On. : 26/12/2022

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Ref. No.: 603/11/2023-24

Date: 30/11/2023

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 1	Location No. 2	Location No. 3
01.	Location of Sampling	----	--	Nr. BF Area	Nr. Sinter Plant	Nr. Coke Oven Unit
02.	Date of sampling	----	--	20/11/2023	20/11/2023	20/11/2023
03.	Time of sampling	Hr.	--	9.15	9.30	9.45
04.	Dominant Wind Direction (From)	----	--	NW	NW	NW
05.	Wind Speed	Km./Hr.	--	2 to 16	2 to 16	2 to 16
06.	Ambient Temperature	° C	--	29.0	29.0	29.0
07.	Average flow rate during sampling	m ³ /minute	--	1.15	1.16	1.21
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	33.7	35.4	36.8
10.	PM 10	µg/m ³	100	51.6	53.4	52.7
11.	Measured Concentration of SO ₂	µg/m ³	80	11.4	12.3	14.3
12.	Measured Concentration of NO ₂	µg/m ³	80	21.5	23.4	22.5

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.



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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 604/11/2023-24

Date: 30/11/2023

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 4	Location No. 5	Location No. 6
01.	Location of Sampling	----	--	Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling	----	--	20/11/2023	20/11/2023	20/11/2023
03.	Time of sampling	Hr.	--	10.00	10.15	10.30
04.	Dominant Wind Direction (From)	----	--	NW	NW	NW
05.	Wind Speed	Km./Hr.	--	2 to 16	2 to 16	2 to 16
06.	Ambient Temperature	° C	--	29.0	29.0	30.0
07.	Average flow rate during sampling	m ³ /minute	--	1.10	1.15	1.25
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	23.2	24.6	25.4
10.	PM 10	µg/m ³	100	50.3	52.4	51.5
11.	Measured Concentration of SO ₂	µg/m ³	80	14.2	13.2	14.3
12.	Measured Concentration of NO ₂	µg/m ³	80	20.3	21.4	22.6

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

Royal Environment Auditing & Consultancy Service



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Ref. No.: 605/11/2023-24

Date: 30/11/2023

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 7	Location No. 8	Location No. 9
01.	Location of Sampling	----	--	Nr. Coal/ Coke Yard	Nr. Canteen (Bramhasthan)	Nr. Health Center
02.	Date of sampling	----	--	21/11/2023	21/11/2023	21/11/2023
03.	Time of sampling	Hr.	--	9.30	9.45	10.0
04.	Dominant Wind Direction (From)	----	--	NW	NW	NW
05.	Wind Speed	Km./Hr.	--	3 to 18	3 to 18	3 to 18
06.	Ambient Temperature	° C	--	29.0	29.0	29.0
07.	Average flow rate during sampling	m ³ /minute	--	1.13	1.17	1.18
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	32.5	35.4	33.4
10.	PM 10	µg/m ³	100	53.4	54.8	55.9
11.	Measured Concentration of SO ₂	µg/m ³	80	12.6	12.4	13.2
12.	Measured Concentration of NO ₂	µg/m ³	80	21.3	23.4	22.5

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.
Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 606/11/2023-24

Date: 30/11/2023

AMBIENT NOISE LEVEL MONITORING REPORTS

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 20/11/2023

Sample Collected by : Royal Environment

Sr. No.	Location of Sampling	Permissible Limits dB(A) Day Time	Results in dB(A) (Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A) Night Time	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM
Monitoring is carried out during			01:30 - 02:30 PM		01:30 - 02:30 AM
01.	Nr. BF Area	75	71.6	70	54.8
02.	Nr. Sinter Plant	75	72.6	70	57.9
03.	Nr. Coke Oven Unit	75	73.5	70	56.3
04.	Nr. Oxygen Plant	75	70.5	70	54.2
05.	Nr. Admin Office	75	71.3	70	53.5

CPCB Standards			
Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Instruments used : Sound level meter, Model : SL-4030 (Lutron), Calibration Done on : 04/03/2023

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 207/11/2023-24

Date: 30/11/2023

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 20/11/2023

Readings Taken by : Royal Environment

Sr.No.	Location of Sampling	Permissible Limits for 8:00 Hrs.	Results in dB(A)
Monitoring is carried out during			02:30 to 3:30 PM
BF Plant			
01	Cast House	85	80.6
02	PCM	85	78.9
03	Stock House	85	81.6
04	GCP	85	80.6
05	Stoves	85	75.9
06	Blower	85	79.9
07	PCI	85	80.6
Sinter Plant			
08	Proportionate Building	85	76.3
09	Waste Gas Fan	85	74.8
10	Sinter Machine	85	76.4
11	Screen House	85	73.9
12	Crushing House	85	78.9

Instruments used : Sound level meter, Model : SL-4030 (Lutron), Calibration Done on : 04/03/2023

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 208/11/2023-24

Date: 30/11/2023

ANALYSIS RESULT OF FUGITIVE EMISSION

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 21/11/2023

Sample Collected by : Royal Environment

Sr. No.	Area	Monitoring Location	Permissible Limit**	SPM Level ($\mu\text{g}/\text{Nm}^3$)
Monitoring is carried out during				11:30 to 12:00 AM
01	BF - Plant	Cast House	3000	1869
02	BF - Plant	Stock House	3000	1798
03	Sinter Plant	Sinter Plant Area	3000	1958

Instruments Used : HVS APM 430, RDS-AAS 217, Calibration done on.: 26/12/2022

** Permissible Limits are as per MoEF Notification 31st March 2012.

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Ref. No. : 209/11/2023-24

Date: 30/11/2023

ILLUMINATION LEVEL MEASUREMENT

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 20/11/2023

Readings Collected by : Royal Environment

Sr. No.	Location of Sampling	Illumination Lux (As per standards IS - 3646 Part - II : 1966)	Illumination Day Time	Illumination Night Time
Monitoring is carried out during			04:00 to 05:00 PM	11:00 to 12:00 PM
01	Sinter-Crusher house	200	440	354
02	Sinter-Prop. Building	200	425	357
03	Sinter-Waste Gas Fan	300	430	398
04	Sinter Machine	300	398	365
05	Sinter-Circuler Cooler	300	357	397
06	Sinter-Fabrication Yard	300	457	384
07	Sinter-Screen House	200	429	359
08	BF - Plant, Casting Floor	300	412	327
09	BF - Plant, Stock House	200	417	326

Instruments used : Lutron Make Lux Meter, Model No. LX-101A

Calibration done on: 04/03/2023



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Ref. No. : 911/11/2022-23

Date: 30/11/2023

WATER SAMPLE ANALYSIS REPORT

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 20/11/2023

Source of Sample : Admin Office

Sample Collected by : Royal Environment

Sr. No.	Parameters	Unit	Acceptable Limit	Permissible Limits(*)	Result
01.	Color	Pt.Co.Scale	5	15	Colorless
02.	Odour	--	Agreeable	Agreeable	Odorless
03.	Temperature	°C	---	---	26
04.	Turbidity	NTU	1	5	NIL
05.	pH	pH Unit	6.5 to 8.5	No Relaxation	7.15
06.	T.D.S.	Mg/L	500	2000	147
07.	Total Hardness	Mg/L	200	600	37
08.	Ca as Ca	Mg/L	75	200	7.1
09.	Mg as Mg	Mg/L	30	100	4.7
10.	Copper	Mg/L	0.05	1.5	< 0.01
11.	Iron	Mg/L	0.3	No Relaxation	< 0.01
12.	Lead	Mg/L	0.01	No Relaxation	< 0.01
13.	Manganese	Mg/L	0.1	0.3	< 0.01
14.	Chloride	Mg/L	250	1000	35.7
15.	Sulphate	Mg/L	200	400	9.4
16.	Nitrate	Mg/L	45	No Relaxation	3.5
17.	Fluoride	Mg/L	1.0	1.5	0.04
18.	Phenolic Compound	Mg/L	0.001	0.002	NIL
19.	Free Residual Chlorine	Mg/L	0.2	1	< 0.01
20.	Total Alkalinity as Calcium Carbonate	Mg/L	200	600	42.0
21.	E - Coli	Coli	----	----	Absent

(*) Permissible Limit in the Absence of Alternate Source as per IS 10500 : 2012, Drinking Water Specification

Note: The water is safe to drink with respect of parameters checked above as per IS 10500:2012 standard

Form No. 37

WORK PLACE MONITORING REPORT

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant.: BF-Plant & Sinter Plant of M/s. Welspun Metallics Ltd., Anjar, Kutch.
- 2 Raw materials, by products and finished products involved in the process. TOTAL DUST
- 3 Particulars of sampling

Date of Sampling: 20th to 24th November 2023

Sample Collected by : Royal Environment

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA** concentration (As given in Second Schedule)	Refrance Method	Number of Workers exposed at the location being monitored	Remarks	Signature person taking samples	Name (in block letters)
				Number of sample	Range	Average						
1	Sinter-Crusher house	Total Dust	Personal Respirable Dust sampler VPDS 203	2	1.5-3.9	2.70	10	Gravimetric	4	---		Mr. Prashant Chavda
2	Sinter-Prop. Building	Total Dust		2	1.6-2.8	2.20	10		3	---		
3	Sinter-Waste Gas Fan	Total Dust		2	1.7-3.7	2.70	10		5	---		
4	Sinter Machine	Total Dust		2	1.3-2.6	1.95	10		4	---		
5	Sinter-Circular Cooler	Total Dust		2	1.5-2.7	2.10	10		5	---		
6	Sinter-Fabrication Yard	Total Dust		2	3.5-2.4	2.95	10		4	---		
7	Sinter-Screen House	Total Dust		2	1.9-2.9	2.40	10		3	---		
8	BF - Plant, Casting Floor	Total Dust		2	1.8-2.8	2.30	10		5	---		
9	BF - Plant, Stock House	Total Dust		2	2.1-3.1	2.60	10		3	---		

** Permissible limits (TWA) are as per ACGIH Standards.
Calibration Done On. : 16/01/2023



For. Royal Environment Auditing & Consultancy Service

Royal Environment Auditing & Consultancy Service

Authorized Sign



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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.
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Ref. No.: 200/12/2023-24

Date: 30/12/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 1	Stack No. 2
01	Stack Attached to	---	---	Blast Furnace (Stove Stack)	Blast Furnace (Stock House)
02	Date of Sampling	---	---	12/12/2023	12/12/2023
03	Time of Sampling	---	---	11:45	12:30
04	Air Pollution Control Measures	---	---	---	---
05	Stack Height	Meter	---	60	70
06	Stack Temperature	° C	---	131	54
07	Ambient Temperature	° C	---	29	29
08	Average Velocity of Flue Gases	M/Sec.	---	7.8	6.5
09	Isokinetic flow rate for P.M. Sampling	LPM	---	23	20
10	P.M.	mg/Nm ³	30	25.5	14.2
11	SO ₂	mg/Nm ³	200	22.4	1.3
12	NO _x	mg/Nm ³	150	29.5	14.3

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On : 26/12/2022

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Ref. No.: 201/12/2023-24

Date: 30/12/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 3	Stack No. 6
01	Stack Attached to	---	---	Blast Furnace (Cast House)	Coke Oven Plant
02	Date of Sampling	---	---	12/12/2023	11/12/2023
03	Time of Sampling	---	---	14:45	16:30
04	Air Pollution Control Measures	---	---	---	Chargin & Pushing ECS
05	Stack Height	Meter	---	70	56
06	Stack Temperature	° C	---	54	105
07	Ambient Temperature	° C	---	29	29
08	Average Velocity of Flue Gases	M/Sec.	---	7.7	6.4
09	Isokinetic flow rate for P.M. Sampling	LPM	---	20	21
10	P.M.	mg/Nm ³	30	20.2	16.5
11	SO ₂	mg/Nm ³	200	1.6	25.4
12	NO _x	mg/Nm ³	150	25.4	36.8

Instruments Used : Ecotech stack monitoring kit ESS - 100,

Calibration Done On : 26/12/2022

* Permissible limits as per GPCB CC&A

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Ph.: +91 9099919954 ■ E-mail : royalsenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 702/12/2023-24

Date: 30/12/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 4	Stack No. 5
01	Stack Attached to	---	---	Sinter Plant	Sinter (De-dusting system)
02	Date of Sampling	---	---	11/12/2023	11/12/2023
03	Time of Sampling	---	---	14:30	15:30
04	Air Pollution Control Measures	---	---	Common ESP	Bag Filter
05	Stack Height	Meter	---	70	50
06	Stack Temperature	° C	---	133	113
07	Ambient Temperature	° C	---	29	29
08	Average Velocity of Flue Gases	M/Sec.	---	7.8	8.4
09	Isokinetic flow rate for P.M. Sampling	LPM	---	23	22
10	P.M.	mg/Nm ³	30	26.4	24.7

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On : 26/12/2022

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.
Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 703/12/2023-24

Date: 30/12/2023

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 1	Location No. 2	Location No. 3
01.	Location of Sampling	----	--	Nr. BF Area	Nr. Sinter Plant	Nr. Coke Oven Unit
02.	Date of sampling	----	--	12/12/2023	12/12/2023	12/12/2023
03.	Time of sampling	Hr.	--	9.10	9.20	9.30
04.	Dominant Wind Direction (From)	----	--	NW	NW	NW
05.	Wind Speed	Km./Hr.	--	2 to 15	2 to 14	2 to 16
06.	Ambient Temperature	° C	--	29.0	29.0	29.0
07.	Average flow rate during sampling	m ³ /minute	--	1.14	1.15	1.20
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	34.1	36.2	37.2
10.	PM 10	µg/m ³	100	52.3	55.2	54.3
11.	Measured Concentration of SO ₂	µg/m ³	80	11.6	13.2	15.9
12.	Measured Concentration of NO ₂	µg/m ³	80	22.5	25.6	24.3

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 704/12/2023-24

Date: 30/12/2023

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 4	Location No. 5	Location No. 6
01.	Location of Sampling	---	--	Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling	---	--	12/12/2023	12/12/2023	12/12/2023
03.	Time of sampling	Hr.	--	09.45	09:55	10.05
04.	Dominant Wind Direction (From)	---	--	NW	NW	NW
05.	Wind Speed	Km./Hr.	--	2 to 15	2 to 16	2 to 15
06.	Ambient Temperature	° C	--	29.0	29.0	29.0
07.	Average flow rate during sampling	m ³ /minute	--	1.12	1.16	1.20
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	25.3	25.6	26.1
10.	PM 10	µg/m ³	100	52.1	53.6	54.6
11.	Measured Concentration of SO ₂	µg/m ³	80	13.6	14.1	15.2
12.	Measured Concentration of NO ₂	µg/m ³	80	21.5	22.5	23.5

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Ref. No.: 705/12/2023-24

Date: 30/12/2023

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 7	Location No. 8	Location No. 9
01.	Location of Sampling	----	--	Nr. Coal/ Coke Yard	Nr. Canteen (Bramhasthan)	Nr. Health Center
02.	Date of sampling	----	--	13/12/2023	13/12/2023	13/12/2023
03.	Time of sampling	Hr.	--	9.40	9.50	10.05
04.	Dominant Wind Direction (From)	----	--	NW	NW	NW
05.	Wind Speed	Km./Hr.	--	3 to 14	3 to 16	3 to 15
06.	Ambient Temperature	° C	--	29.0	29.0	29.0
07.	Average flow rate during sampling	m ³ /minute	--	1.14	1.16	1.17
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	33.5	36.2	35.6
10.	PM 10	µg/m ³	100	54.2	55.2	56.3
11.	Measured Concentration of SO ₂	µg/m ³	80	13.2	13.5	14.2
12.	Measured Concentration of NO ₂	µg/m ³	80	22.5	24.2	23.5

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 706/11/2023-24

Date: 30/12/2023

AMBIENT NOISE LEVEL MONITORING REPORTS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 12/12/2023

Sample Collected by : Royal Environment

Sr. No.	Location of Sampling	Permissible Limits dB(A) Day Time	Results in dB(A) (Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A) Night Time	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM
Monitoring is carried out during			01:30 - 02:30 PM		01:30 - 02:30 AM
01.	Nr. BF Area	75	72.3	70	53.3
02.	Nr. Sinter Plant	75	74.5	70	56.2
03.	Nr. Coke Oven Unit	75	71.8	70	52.6
04.	Nr. Oxygen Plant	75	72.4	70	55.5
05.	Nr. Admin Office	75	70.9	70	54.7

CPCB Standards			
Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Instruments used : Sound level meter, Model : SL-4030 (Lutron), Calibration Done on : 04/03/2023

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.
Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 300/01/2023-24

Date: 31/01/2024

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

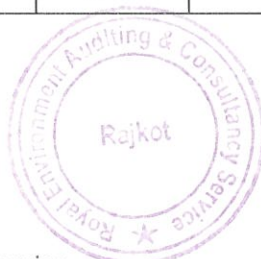
Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 1	Stack No. 2
01	Stack Attached to	---	---	Blast Furnace (Stove Stack)	Blast Furnace (Stock House)
02	Date of Sampling	---	---	08/01/2024	08/01/2024
03	Time of Sampling	---	---	10:15	11:00
04	Air Pollution Control Measures	---	---	--	--
05	Stack Height	Meter	---	60	70
06	Stack Temperature	° C	---	135	58
07	Ambient Temperature	° C	---	29	29
08	Average Velocity of Flue Gases	M/Sec.	---	8.1	6.9
09	Isokinetic flow rate for P.M. Sampling	LPM	---	22	21
10	P.M.	mg/Nm ³	30	26.7	16.1
11	SO ₂	mg/Nm ³	200	23.5	3.5
12	NO _x	mg/Nm ³	150	26.9	14.2

Instruments Used : Ecotech stack monitoring kit ESS - 100,

Calibration Done On. : 26/12/2022

* Permissible limits as per GPCB CC&A



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Ref. No.: 301/01/2023-24

Date: 30/12/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 3	Stack No. 6
01	Stack Attached to	---	---	Blast Furnace (Cast House)	Coke Oven Plant
02	Date of Sampling	---	---	08/01/2024	08/01/2024
03	Time of Sampling	---	---	12: 00	14:30
04	Air Pollution Control Measures	---	---	--	Chargin & Pushing ECS
05	Stack Height	Meter	---	70	56
06	Stack Temperature	° C	---	56	108
07	Ambient Temperature	° C	---	30	30
08	Average Velocity of Flue Gases	M/Sec.	---	8.3	7.3
09	Isokinetic flow rate for P.M. Sampling	LPM	---	22	23
10	P.M.	mg/Nm ³	30	21.5	17.5
11	SO ₂	mg/Nm ³	200	1.8	26.3
12	NO _x	mg/Nm ³	150	23.2	37.6

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On. : 26/12/2022

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Ref. No.: 802/01/2023-24

Date: 31/01/2024

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 4	Stack No. 5
01	Stack Attached to	---	---	Sinter Plant	Sinter (De-dusting system)
02	Date of Sampling	---	---	09/01/2024	09/01/2024
03	Time of Sampling	---	---	10:30	11:30
04	Air Pollution Control Measures	---	---	Common ESP	Bag Filter
05	Stack Height	Meter	---	70	50
06	Stack Temperature	° C	---	135	115
07	Ambient Temperature	° C	---	30	29
08	Average Velocity of Flue Gases	M/Sec.	---	7.9	8.3
09	Isokinetic flow rate for P.M. Sampling	LPM	---	24	22
10	P.M.	mg/Nm ³	30	27.1	24.1

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On. : 26/12/2022

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 803/01/2023-24

Date: 31/01/2024

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 1	Location No. 2	Location No. 3
01.	Location of Sampling	----	--	Nr. BF Area	Nr. Sinter Plant	Nr. Coke Oven Unit
02.	Date of sampling	----	--	08/01/2024	08/01/2024	08/01/2024
03.	Time of sampling	Hr.	--	9.00	9.15	9.30
04.	Dominant Wind Direction (From)	----	--	NE	NE	NE
05.	Wind Speed	Km./Hr.	--	3 to 16	2 to 16	3 to 15
06.	Ambient Temperature	° C	--	27.0	27.0	27.0
07.	Average flow rate during sampling	m ³ /minute	--	1.13	1.15	1.20
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	34.1	33.9	35.1
10.	PM 10	µg/m ³	100	59.8	54.8	53.9
11.	Measured Concentration of SO ₂	µg/m ³	80	14.5	13.5	15.7
12.	Measured Concentration of NO ₂	µg/m ³	80	23.7	22.5	23.5

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 804/01/2023-24

Date: 31/01/2024

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

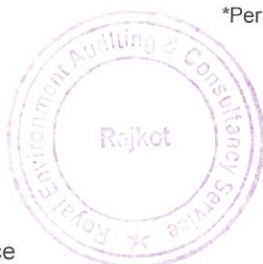
Sr. No.	Particulars	Unit	Permissible Limits	Location No. 4	Location No. 5	Location No. 6
01.	Location of Sampling	----	--	Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling	----	--	08/01/2024	08/01/2024	08/01/2024
03.	Time of sampling	Hr.	--	09.15	09:30	09.45
04.	Dominant Wind Direction (From)	----	--	NE	NE	NE
05.	Wind Speed	Km./Hr.	--	4 to 15	3 to 16	4 to 16
06.	Ambient Temperature	° C	--	28.0	28.0	28.0
07.	Average flow rate during sampling	m ³ /minute	--	1.15	1.18	1.20
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	23.1	24.5	23.8
10.	PM 10	µg/m ³	100	52.1	53.2	48.9
11.	Measured Concentration of SO ₂	µg/m ³	80	12.5	12.4	13.2
12.	Measured Concentration of NO ₂	µg/m ³	80	22.3	23.5	23.6

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Ref. No.: 805/09/2023-24

Date: 31/01/2024

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 7	Location No. 8	Location No. 9
01.	Location of Sampling	----	--	Nr. Coal/ Coke Yard	Nr. Canteen (Bramhasthan)	Nr. Health Center
02.	Date of sampling	----	--	09/01/2024	09/01/2024	09/01/2024
03.	Time of sampling	Hr.	--	09 : 15	9.30	09.45
04.	Dominant Wind Direction (From)	----	--	NW	NW	NW
05.	Wind Speed	Km./Hr.	--	3 to 14	3 to 16	3 to 15
06.	Ambient Temperature	° C	--	28.0	28.0	28.0
07.	Average flow rate during sampling	m ³ /minute	--	1.12	1.16	1.18
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	25.8	27.3	25.9
10.	PM 10	µg/m ³	100	52.1	53.5	50.7
11.	Measured Concentration of SO ₂	µg/m ³	80	14.1	13.2	12.3
12.	Measured Concentration of NO ₂	µg/m ³	80	21.5	23.2	22.4

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 806/01/2023-24

Date: 31/01/2024

AMBIENT NOISE LEVEL MONITORING REPORTS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 09/01/2024

Sample Collected by : Royal Environment

Sr. No.	Location of Sampling	Permissible Limits dB(A) Day Time	Results in dB(A) (Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A) Night Time	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM
Monitoring is carried out during			01:30 - 02:30 PM		01:30 - 02:30 AM
01.	Nr. BF Area	75	71.6	70	56.7
02.	Nr. Sinter Plant	75	73.5	70	53.7
03.	Nr. Coke Oven Unit	75	74.9	70	54.7
04.	Nr. Oxygen Plant	75	73.2	70	55.4
05.	Nr. Admin Office	75	71.6	70	53.6

CPCB Standards			
Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Instruments used : Sound level meter, Model : SL-4030 (Lutron), Calibration Done on : 04/03/2023


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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.
Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 400/02/2023-24

Date: 29/02/2024

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 1	Stack No. 2
01	Stack Attached to	---	---	Blast Furnace (Stove Stack)	Blast Furnace (Stock House)
02	Date of Sampling	---	---	21/02/2024	21/02/2024
03	Time of Sampling	---	---	10:25	11:25
04	Air Pollution Control Measures	---	---	---	---
05	Stack Height	Meter	---	60	70
06	Stack Temperature	° C	---	132	59
07	Ambient Temperature	° C	---	29	29
08	Average Velocity of Flue Gases	M/Sec.	---	8.2	7.5
09	Isokinetic flow rate for P.M. Sampling	LPM	---	21	22
10	P.M.	mg/Nm ³	30	25.6	16.8
11	SO ₂	mg/Nm ³	200	24.2	3.6
12	NO _x	mg/Nm ³	150	27.1	14.8

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On : 26/12/2022

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Ref. No.: 401/02/2023-24

Date: 29/02/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 3	Stack No. 6
01	Stack Attached to	---	---	Blast Furnace (Cast House)	Coke Oven Plant
02	Date of Sampling	---	---	21/02/2024	21/02/2024
03	Time of Sampling	---	---	13: 30	14:30
04	Air Pollution Control Measures	---	---	---	Chargin & Pushing ECS
05	Stack Height	Meter	---	70	56
06	Stack Temperature	° C	---	57	107
07	Ambient Temperature	° C	---	29	29
08	Average Velocity of Flue Gases	M/Sec.	---	8.1	7.4
09	Isokinetic flow rate for P.M. Sampling	LPM	---	21	22
10	P.M.	mg/Nm ³	30	22.5	17.5
11	SO ₂	mg/Nm ³	200	1.5	26.3
12	NO _x	mg/Nm ³	150	24.2	36.1

Instruments Used : Ecotech stack monitoring kit ESS - 100,

Calibration Done On. : 26/12/2022

* Permissible limits as per GPCB CC&A



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Ref. No.: 902/02/2023-24

Date: 29/02/2024

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 4	Stack No. 5
01	Stack Attached to	---	---	Sinter Plant	Sinter (De-dusting system)
02	Date of Sampling	---	---	22/02/2024	22/02/2024
03	Time of Sampling	---	---	10:45	11:50
04	Air Pollution Control Measures	---	---	Common ESP	Bag Filter
05	Stack Height	Meter	---	70	50
06	Stack Temperature	° C	---	137	117
07	Ambient Temperature	° C	---	29	29
08	Average Velocity of Flue Gases	M/Sec.	---	7.6	8.2
09	Isokinetic flow rate for P.M. Sampling	LPM	---	23	21
10	P.M.	mg/Nm ³	30	27.6	24.5

Instruments Used : Ecotech stack monitoring kit ESS - 100,

* Permissible limits as per GPCB CC&A

Calibration Done On : 26/12/2022

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 904/02/2023-24

Date: 29/02/2024

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist : Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 4	Location No. 5	Location No. 6
01.	Location of Sampling	----	--	Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling	----	--	21/02/2024	21/02/2024	21/02/2024
03.	Time of sampling	Hr.	--	09.30	09.35	09.40
04.	Dominant Wind Direction (From)	----	--	NE	NE	NE
05.	Wind Speed	Km./Hr.	--	4 to 14	3 to 15	3 to 16
06.	Ambient Temperature	° C	--	28.0	28.0	28.0
07.	Average flow rate during sampling	m ³ /minute	--	1.16	1.14	1.11
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	23.5	25.2	22.5
10.	PM 10	µg/m ³	100	53.1	52.3	47.4
11.	Measured Concentration of SO ₂	µg/m ³	80	12.6	12.1	12.7
12.	Measured Concentration of NO ₂	µg/m ³	80	24.1	24.6	21.2

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.


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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 906/02/2023-24

Date: 29/02/2024

AMBIENT NOISE LEVEL MONITORING REPORTS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 21/02/2024

Sample Collected by : Royal Environment

Sr. No.	Location of Sampling	Permissible Limits dB(A) Day Time	Results in dB(A) (Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A) Night Time	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM
Monitoring is carried out during			01:30 - 02:30 PM		01:30 - 02:30 AM
01.	Nr. BF Area	75	70.5	70	56.1
02.	Nr. Sinter Plant	75	71.4	70	52.8
03.	Nr. Coke Oven Unit	75	72.8	70	55.4
04.	Nr. Oxygen Plant	75	73.2	70	54.6
05.	Nr. Admin Office	75	70.8	70	52.4

CPCB Standards			
Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Instruments used : Sound level meter, Model : SL-4030 (Lutron), Calibration Done on : 04/03/2023

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 907/02/2023-24

Date: 29/02/2024

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 21/02/2024

Readings Taken by : Royal Environment

Sr.No.	Location of Sampling	Permissible Limits for 8:00 Hrs.	Results in dB(A)
Monitoring is carried out during			02:30 to 3:30 PM
BF Plant			
01	Cast House	85	80.6
02	PCM	85	78.9
03	Stock House	85	81.6
04	GCP	85	80.6
05	Stoves	85	75.9
06	Blower	85	79.9
07	PCI	85	80.6
Sinter Plant			
08	Proportionate Building	85	76.3
09	Waste Gas Fan	85	74.8
10	Sinter Machine	85	76.4
11	Screen House	85	73.9
12	Crushing House	85	78.9
Coke Oven Plant			
13	WHRB	85	83.2
14	ID Fan Area	85	78.3
15	Stamping Unit	85	77.2
16	Cutter Building	85	79.3
17	Coke Dryer Building	85	12.5
Oxygen Plant			
18	Control Room	85	65.4
19	Compressor Area	85	78.3
20	Cooling Area	85	70.2

Instruments used : Sound level meter, Model : SL-4030 (Lutron), Calibration Done on : 04/03/2023



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Ref. No. : 908/02/2023-24

Date: 29/02/2024

ANALYSIS RESULT OF FUGITIVE EMISSION

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 21/02/2024

Sample Collected by : Royal Environment

Sr. No.	Area	Monitoring Location	Permissible Limit**	SPM Level (µg/Nm³)
Monitoring is carried out during				11:30 to 12:00 AM
01	BF - Plant	Cast House	3000	1869
02	BF - Plant	Stock House	3000	1798
03	Sinter Plant	Sinter Plant Area	3000	1958
04	Coke Oven Plant	Battery Area	3000	1995
05	Oxygen Plant	Oxygen Plant Area	3000	1632

Instruments Used : HVS APM 430, RDS-AAS 217, Calibration done on.: 14/01/2024

** Permissible Limits are as per MoEF Notification 31st March 2012.

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Ref. No. : 909/02/2023-24

Date: 29/02/2024

ILLUMINATION LEVEL MEASUREMENT

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 21/02/2024

Readings Collected by : Royal Environment

Sr. No.	Location of Sampling	Illumination Lux (As per standards IS - 3646 Part - II : 1966)	Illumination Day Time	Illumination Night Time
Monitoring is carried out during			04:00 to 05:00 PM	11:00 to 12:00 PM
01	Sinter-Crusher house	200	440	354
02	Sinter-Prop. Building	200	425	357
03	Sinter-Waste Gas Fan	300	430	398
04	Sinter Machine	300	398	365
05	Sinter-Circuler Cooler	300	357	397
06	Sinter-Fabrication Yard	300	457	384
07	Sinter-Screen House	200	429	359
08	BF - Plant, Casting Floor	300	412	327
09	BF - Plant, Stock House	200	417	326
10	Coke Oven-Ground Hopper	300	420	380
11	Coke Oven-Coke Dryer Building	200	345	320
12	Coke Oven- Primary Crusher	200	365	330
13	Coke Oven- Secondary Crusher	200	370	325
14	Coke Oven-Pushing Cum Charging Car	200	380	320
15	Oxygen Plant-Compressor Area	300	410	380

Instruments used : Lutron Make Lux Meter, Model No. LX-101A

Calibration done on: 04/03/2023

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Form No. 37 WORK PLACE MONITORING REPORT

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant.: **BF-Plant & Sinter Plant of M/s. Welspun Mettallics Ltd., Anjar, Kutch.**
- 2 Raw materials, by products and finished products involved in the process. **TOTAL DUST**
- 3 Particulars of sampling

Date of Sampling: 20th to 24th November 2023

Sample Collected by : Royal Environment

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA** concentration (As given in Second Schedule)	Refrance Method	Number of Workers exposed at the location being monitored	Remarks	Signature person taking samples	Name (in block letters)
				Number of sample	Range	Average						
1	Sinter-Crusher house	Total Dust	Personal Respirable Dust sampler VPDS 203	2	1.5-3.9	2.70	10	Gravimetric	4	---		Mr. Prashant Chavda
2	Sinter-Prop. Building	Total Dust		2	1.6-2.8	2.20	10		3	---		
3	Sinter-Waste Gas Fan	Total Dust		2	1.7-3.7	2.70	10		5	---		
4	Sinter Machine	Total Dust		2	1.3-2.6	1.95	10		4	---		
5	Sinter-Circuler Cooler	Total Dust		2	1.5-2.7	2.10	10		5	---		
6	Sinter-Fabrication Yard	Total Dust		2	3.5-2.4	2.95	10		4	---		
7	Sinter-Screen House	Total Dust		2	1.9-2.9	2.40	10		3	---		
8	BF - Plant, Casting Floor	Total Dust		2	1.8-2.8	2.30	10		5	---		
9	BF - Plant, Stock House	Total Dust		2	2.1-3.1	2.60	10		3	---		
10	Coke Oven-Coke Dryer	Total Dust		2	3.5-4.5	4.00	10		6	---		
11	Coke Oven-Coke Cutter	Total Dust		2	3.2-3.6	3.40	10		5	---		
12	Oxygen Plant-Cooling Area	Total Dust		2	1.2-1.3	1.25	10		2	---		

** Permissible limits (TWA) are as per ACGIH Standards.
Calibration Done On. : 16/01/2023

For. Royal Environment Auditing & Consultancy Service



Royal Environment Auditing & Consultancy Service

Authorized Sign



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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 911/02/2023-24

Date: 29/02/2024

WATER SAMPLE ANALYSIS REPORT

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 21/02/2024

Source of Sample : Admin Office

Sample Collected by : Royal Environment

Sr. No.	Parameters	Unit	Acceptable Limit	Permissible Limits(*)	Result
01.	Color	Pt.Co Scale	5	15	Colorless
02.	Odour	--	Agreeable	Agreeable	Odorless
03.	Temperature	°C	---	---	26
04.	Turbidity	NTU	1	5	NIL
05.	pH	pH Unit	6.5 to 8.5	No Relaxation	7.25
06.	T.D.S.	Mg/L	500	2000	140
07.	Total Hardness	Mg/L	200	600	50
08.	Ca as Ca	Mg/L	75	200	12.5
09.	Mg as Mg	Mg/L	30	100	4.6
10.	Copper	Mg/L	0.05	1.5	< 0.01
11.	Iron	Mg/L	0.3	No Relaxation	< 0.01
12.	Lead	Mg/L	0.01	No Relaxation	< 0.01
13.	Manganese	Mg/L	0.1	0.3	< 0.01
14.	Chloride	Mg/L	250	1000	25.3
15.	Sulphate	Mg/L	200	400	8.2
16.	Nitrate	Mg/L	45	No Relaxation	4.1
17.	Fluoride	Mg/L	1.0	1.5	0.06
18.	Phenolic Compound	Mg/L	0.001	0.002	NIL
19.	Free Residual Chlorine	Mg/L	0.2	1	< 0.01
20.	Total Alkalinity as Calcium Carbonate	Mg/L	200	600	30.0
21.	E - Coli	Coli	---	---	Absent

(*) Permissible Limit in the Absense of Alternate Source as per IS 10500 : 2012, Drinking Water Specification

Note: The water is safe to drink with respect of parameters checked above as per IS 10500:2012 standard.



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Ref. No.: 111/03/2023-24

Date: 21/03/2024

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626:
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

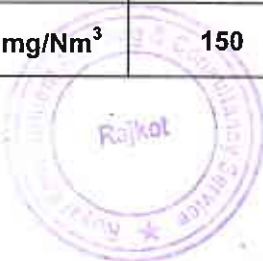
Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 1	Stack No. 2
01	Stack Attached to	---	---	Blast Furnace (Stove Stack)	Blast Furnace (Stock House)
02	Date of Sampling	---	---	15/03/2024	15/03/2024
03	Time of Sampling	---	---	10:30	11:15
04	Air Pollution Control Measures	---	---	---	---
05	Stack Height	Meter	---	60	70
06	Stack Temperature	° C	---	135	61
07	Ambient Temperature	° C	---	29	29
08	Average Velocity of Flue Gases	M/Sec.	---	7.5	6.8
09	Isokinetic flow rate for P.M. Sampling	LPM	---	19	21
10	P.M.	mg/Nm ³	30	26.7	17.5
11	SO ₂	mg/Nm ³	200	23.6	16.3
12	NO _x	mg/Nm ³	150	25.7	14.8

Instruments Used : Ecotech stack monitoring kit ESS - 100,

Calibration Done On : 18/01/2024

* Permissible limits as per GPCB CC&A



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Ref. No.: 112/03/2023-24

Date: 30/03/2023

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 3	Stack No. 6
01	Stack Attached to	---	---	Blast Furnace (Cast House)	Coke Oven Plant
02	Date of Sampling	---	---	15/03/2024	15/03/2024
03	Time of Sampling	---	---	12: 00	14:30
04	Air Pollution Control Measures	---	---	---	Chargin & Pushing ECS
05	Stack Height	Meter	---	68	57
06	Stack Temperature	° C	---	59	109
07	Ambient Temperature	° C	---	30	30
08	Average Velocity of Flue Gases	M/Sec.	---	8.6	7.9
09	Isokinetic flow rate for P.M. Sampling	LPM	---	23	19
10	P.M.	mg/Nm ³	30	21.5	18.7
11	SO ₂	mg/Nm ³	200	10.3	19.6
12	NO _x	mg/Nm ³	150	23.1	29.8

Instruments Used : Ecotech stack monitoring kit ESS - 100,

Calibration Done On : 26/12/2022

* Permissible limits as per GPCB CC&A



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Ref. No.: 113/02/2023-24

Date: 21/03/2024

REPORT OF STACK EMISSION ANALYSIS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limit	Stack No. 4	Stack No. 5
01	Stack Attached to			Sinter Plant	Sinter (De-dusting system)
02	Date of Sampling			16/03/2024	16/03/2024
03	Time of Sampling			10:30	11:30
04	Air Pollution Control Measures			Common ESP	Bag Filter
05	Stack Height	Meter		70	50
06	Stack Temperature	° C		138	112
07	Ambient Temperature	° C		31	30
08	Average Velocity of Flue Gases	M/Sec.		7.2	7.9
09	Isokinetic flow rate for P.M. Sampling	LPM		19	22
10	P.M.	mg/Nm ³	30	25.7	23.6

Instruments Used : Ecotech stack monitoring kit ESS - 100,

Calibration Done On : 18/01/2024

* Permissible limits as per GPCB CC&A

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Ph.: +91 9099919954 ■ E-mail : royaleenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 115/03/2023-24

Date: 21/03/2024

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 1	Location No. 2	Location No. 3
01.	Location of Sampling	----	--	Nr. BF Area	Nr. Sinter Plant	Nr. Coke Oven Unit
02.	Date of sampling	----	--	15/03/2024	15/03/2024	15/03/2024
03.	Time of sampling	Hr.	--	09.00	09.15	09.30
04.	Dominant Wind Direction (From)	----	--	SW	SW	SW
05.	Wind Speed	Km./Hr.	--	4 to 16	4 to 16	4 to 16
06.	Ambient Temperature	° C	--	28.0	28.0	28.0
07.	Average flow rate during sampling	m ³ /minute	--	1.12	1.15	1.17
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	33.5	34.1	32.5
10.	PM 10	µg/m ³	100	58.3	57.2	50.9
11.	Measured Concentration of SO ₂	µg/m ³	80	13.3	14.2	12.7
12.	Measured Concentration of NO ₂	µg/m ³	80	21.8	23.5	12.7

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 13/01/2024

*Permissible Limits are as per NAAQ Standard 16th November 2009.





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Ref. No.: 114/03/2023-24

Date: 21/03/2024

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 4	Location No. 5	Location No. 6
01.	Location of Sampling	----	--	Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling	---	--	15/03/2024	15/03/2024	15/03/2024
03.	Time of sampling	Hr.	--	09.45	10.00	10.15
04.	Dominant Wind Direction (From)	----	--	SW	SW	SW
05.	Wind Speed	Km./Hr.	--	4 to 16	4 to 16	4 to 16
06.	Ambient Temperature	° C	--	28.0	28.0	28.0
07.	Average flow rate during sampling	m ³ /minute	--	1.13	1.18	1.25
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	27.8	29.8	27.9
10.	PM 10	µg/m ³	100	53.4	52.6	52.9
11.	Measured Concentration of SO ₂	µg/m ³	80	13.1	14.5	13.5
12.	Measured Concentration of NO ₂	µg/m ³	80	23.1	21.2	22.5

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 26/12/2022

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Ref. No.:116/03/2023-24

Date: 21/03/2024

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of company : Welspun Mettals Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar
Dist.: Kutch - 370 110.

Sample Collected by : Royal Environment

Sr. No.	Particulars	Unit	Permissible Limits	Location No. 7	Location No. 8	Location No. 9
01.	Location of Sampling	----	--	Nr. Coal/ Coke Yard	Nr. Canteen (Bramhasthan)	Nr. Health Center
02.	Date of sampling	----	--	16/03/2024	16/03/2024	16/03/2024
03.	Time of sampling	Hr.	--	09 : 15	9.35	09.55
04.	Dominant Wind Direction (From)	----	--	SW	SW	SW
05.	Wind Speed	Km./Hr.	--	4 to 15	4 to 15	4 to 15
06.	Ambient Temperature	° C	--	27.0	27.0	27.0
07.	Average flow rate during sampling	m ³ /minute	--	1.14	1.13	1.19
08.	Average flow rate for Gas sampling	LPM	--	0.2	0.2	0.2
09.	PM 2.5	µg/m ³	60	27.3	26.9	24.6
10.	PM 10	µg/m ³	100	54.8	56.9	53.8
11.	Measured Concentration of SO ₂	µg/m ³	80	15.7	16.8	17.4
12.	Measured Concentration of NO ₂	µg/m ³	80	23.5	24.8	23.9

Instrument used : Ecotech RDS (APM - 217 BL), Gaseous Sampling Kit AAS109 & PM 2.5 Sampler

Calibration Done On : 13/01/2024

*Permissible Limits are as per NAAQ Standard 16th November 2009.

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Ph.: +91 9099919954 ■ E-mail : royalsenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 117/03/2023-24

Date: 21/03/2024

AMBIENT NOISE LEVEL MONITORING REPORTS

Name of company : Welspun Mettalics Limited,(ID-59424)

Address : Survey No. 644/1, 641, 611/2, 617/1, 617/2, 618, 629/1, 629/2,
614, 615/1, 615/2, 615/3, 606/1, 558, 606, 609, 626.
Village: Varsamedi, Welspun City, Tal.: Anjar.
Dist.: Kutch - 370 110.

Date of Sampling : 16/03/2024

Sample Collected by : Royal Environment

Date of Sampling: 15/03/2024					
Sr. No.	Location of Sampling	Permissible Limits dB(A) Day Time	Results in dB(A) (Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A) Night Time	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM
Monitoring is carried out during			01:30 - 02:30 PM		01:30 - 02:30 AM
01.	Nr. BF Area	75	71.9	70	57.2
02.	Nr. Sinter Plant	75	73.5	70	53.9
03.	Nr. Coke Oven Unit	75	74.2	70	54.8
04.	Nr. Oxygen Plant	75	72.6	70	52.4
05.	Nr. Admin Office	75	68.7	70	53.6

CPCB Standards			
Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Instruments used : Sound level meter, Model : SL-4030 (Lutron), Calibration Done on : 04/03/2023

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