

Date: 24/11/2023

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 April 2023 to September 2023.

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 started in coming days.

Thanking You.

Yours faithfully,

For Welspun Metallics L

Vipin Kumar sik AGM(Environn

Encl: As above

CC:

- 3) Gujarat Pollution Control Board, Parayavaran Bhawan Sector-10-A, Gandhinagar
- 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, Gujrat. (EC FNo. J-11011/136/2015-IA-II(I) dated 22<sup>nd</sup> March 2021)

Sr. No.	Sr. No. Specific Condition							
	Sr. No.	Name of facility	Exiting Units	Units	Proposed units	lunits		Total Units (Existing +Proposed)
			configuration	Production MTPA	configuration	Production MTPA	00	configuration
	I.	Coke Oven & By products Recovery Plant (COBP)	2 x 58 No. Ovens	1.37	1	1		2 x 58 No. Ovens
	2.	Sinter plant	1x496 m <sup>2</sup>	5.28	1	I		1x496 m <sup>2</sup>
	ω	Blast Furnace with matching pig casting facility (Along with Pig casting Machine of Capacity)	1x 4300 m <sup>3</sup>	3.34	1	1		1x 4300 m <sup>3</sup>
		ě			4.			
	4	Steel Melt Shop	BOF-2 x 165 T	3.1	(Un proposed) BOF-1x 165 T	(-)1.55	-	BOF- 1x 165 T
-X-1			LF- 2 x 165 T VD- 1x 165 T		LF- 1 x 165 T			LF- 1 x 165 T VD- 1x 165 T
	S	Continuous slab casting	1x1 Strand	1.6	-	1		1x1 Strand
	6	Continuous Billet casting	1x 6 Stand	1.4	(Un proposed) (1 x 6 stand)	(-)1.4		,
	7	Rolling Mill Plate & Coil Mill	I unit	1.37	1 unit	(-)1.37	1	1
	∞			2001		1		Gas based

IV	Ш	, п	Ι,		2 7										
EC compliance	Revised Plant la	", Undertaking "	"NOC" form M	their report after	The proposal for constituted Expo			12					1	10	9
EC compliance responsibility matrix between WML and WDIPL	Revised Plant layout with area and green belt detailed by WML and WDIPL	"Undertaking "from M/s. Welspun DI Pipe Limited (WDIPL)	"NOC" form M/s. Welspun Metallics Limited	their report after examination of the following:	r part transfer of 0.5 MT ert Appraisal Committee	Furnace (Induction Furnace) and Sand Moulding Facility	other casting using Heating and Melting	Foundry Shop for Metal Fitting and	Furnace, Finishing Line.)	Centrifugal Casting Machine, Annealing	Furnaces, Convertor,	(Including Induction	DI Pipe Plant	Cement grinding Plant	Lime/dolo Plant
ween WML and	a belt detailed by	Pipe Limited ( W	mited	owing;	PA DI pipe unit i (Industry -I) hek			i					ī	1 unit	2 x 600 TPD
WDIPL	WML and W	DIPL)			n the name o d on 18-19 <sup>th</sup> J			1					i	1.5	0.34
	/DIPL				fM/s. Welspun DI fanuary , 2021 wher		11	1 Unit			3		2 unit	1 unit	(Un proposed) 1 x 600 TPD
					Pipes Limited ein the comm			0.1 MTPA				(2x 0.25)	0.5	1.5	(-) 0.17
					ittee formed sub-con			1 Unit					2 unit	l unit	1 x 600 TPD
					The proposal for part transfer of 0.5 MTPA DI pipe unit in the name of M/s. Welspun DI Pipes Limited Was considered during 28 <sup>th</sup> meeting of the Ke-constituted Expert Appraisal Committee (Industry -I) held on 18-19 <sup>th</sup> January, 2021 wherein the committee formed sub-committee. The Sub-committee			0.1 MTPA					0.5	1.5	0.17
SETAL SE	NETAY.				Noted .										

-	7.	6.	Ş	4,	ω.	2	F	Q	В	>	No.
	Foundry Shop for Metal Fitting and other casting using Heating and Melting Furnace	DI Pipe Plant (Including Induction Furnaces, Convertor, Centrifugal Casting Machine, Annealing Furnace, Finishing Line.)	Continuous Casting	Steel Melt Shop	Blast Furnace	Sinter Plant	Coke Ovens & By- products Recovery Plant (COBP)	Units/Facilities	Location	Title of the Project	Item
	0.1 MTPA	2 X 0.25 MTPA-0.5 MTPA	Slab caster –1 x 1 Strand 1.6 MTPA	BOF - 2 x 165 T LF - 2 x 165 T VD - 1 x 165 T 1.55 MTPA	1 x 4300 m3- 3.34 MTPA Hot Metal	1 x 496 sq m -5.28 MTPA	2 X 58 No. Ovens -1.37 MTPA Gross Coke		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	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	Total Capacity as per EC recommended upper para 7 (ii)
	0.1 MTPA		Slab caster – 1 x 1 Strand 1.6 MTPA	BOF - 1 x 165 T LF - 1 x 165 T VD - 1 x 165 T 1.55 MTPA	1 x 4300 m3- 3.34 MTPA Hot Metal	1 x 496 sq m -5.28 MTPA	2 X 58 No. Ovens -1.37 MTPA Gross Coke		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	Installation of 3.0 MTPA Integrated Steel Plant including 1.5 MTPA Cement Plant and 200MW CPP by by M/s Welspun Metallics Ltd., located at Village Versamedi, Tehsil Anjar, District Kutch, Gujarat	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)
STATE OF THE PARTY	Noted.	DI Pipe Plant (Including Induction Furnaces, Convertor, Centrifugal Casting Machine, Annealing Furnace, and Finishing Line.) has already been commissioned & started Production.	Noted.	Noted.	Welspun Metallics Ltd (WML) has installed the Blast Furnace of capacity 0.5 MTPA.	Welspun Metallics Ltd (WML) has installed the Sinter Plant of capacity 0.72MTPA.	Welspun Metallics Ltd (WML) has installed the coke oven plant of Capacity 0.25 MTPA.	The state of the s	Noted.		Compliance status

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				į			*	E I	Ε		<b>Process Description</b>	Cement Grinding unit	Power Plant	Lime/dolo Calcining Plant 1 x 600 TPD	(Induction Furnace) and Sand Moulding Facility		Treim
<ul> <li>Centrifugally casting of pipes using molten metal in CCMs;</li> <li>Heat treatment in annealing</li> </ul>	<ul> <li>Magnesium treatment in convertor:</li> </ul>	Superheating of molten metal in	Blast furnace Hot metal from WML followed by	<ul> <li>Cement Grinding unit based on BF Slag</li> <li>Production of DI Pipes using</li> </ul>	<ul> <li>Power generation through waste heat recovery.</li> </ul>	casting	having hot metal production capacity of 3.34 MTPA followed by 1.6 MTPA slab	BOF route, with Blast Furnace	plant	<ul> <li>Ovens</li> <li>Production of Sinter in Sinter</li> </ul>	<ul> <li>Production of coke in Coke</li> </ul>	1.5 MTPA	2 X 100 MW (Gas based) 165 MW BF-TRT, CDQ & Sinter Cooler 35 MW	2 x 600 TPD 0.17 MTPA			recommended upper para 7 (ii)
					7		<ul> <li>Power generation through waste heat recovery.</li> <li>Cement Grinding unit based on BF Slag</li> </ul>	slab casting		<ul> <li>Production of Sinter in Sinter plant</li> <li>Production of Steel through BF-BOF route, with</li> </ul>	<ul> <li>Production of coke in Coke Ovens</li> </ul>	1.5 MTPA	2 X 100 MW (Gas based) 165 MW BF-1R1, CDQ & Sinter Cooler 35 MW			Company (WML) to New Company (WDI) Parent Company (WML)	subsequent partial
PUN ABO	AETAL,	n:			2						Noted.	Noted.	Noted.	Noted.			

J	-	Н	G	ম	দ্র		No.
Pollutants	Fuel Requirement	Power Requirement	Water Requirement	Raw Material	Land Requirement		Item
PM -273.1Kg/hr	<ul> <li>Coke Oven gas (COG) – 48127 Nm³/hr</li> <li>BF Gas (BFG) – 587155 Nm³/hr</li> <li>BOF Gas (BOFG) – 28310 Nm³/hr</li> <li>Propane – 20 TPD</li> <li>Fuel Oil – 600 TPD</li> </ul>	211 MW	47232 m <sup>3</sup> /day (1755 m3/hr)	<ul> <li>Iron Ore (Fines) – 4.08 MTPA</li> <li>Iron ore (Lump) – 1.91 MTPA</li> <li>Coking Coal – 2.01 MTPA</li> <li>Non Coking Coal – 0.09 MTPA</li> <li>PCI Coal – 0.64 MTPA</li> <li>Limestone – 1.22 MTPA</li> <li>Dolomite – 0.51 MTPA</li> <li>Steel scrap-0.08 MTPA</li> <li>Zinc wire-2600 TPA</li> <li>Fe-si-16800 TPS</li> <li>Mg-6600 TPA</li> <li>Calcined Lime-600 TPA</li> </ul>	231.58 ha (77.2 ha -33.3% Greenbelt)	furnace to give ductility to the casted pipes.  • Cement lining, zinc and bitumen coatings & stampings	Total Capacity as per EC recommended upper para 7 (ii)
PM - 258.9 Kg/hr	<ul> <li>Coke Oven gas (COG) – 48127 Nm³/hr</li> <li>BF Gas (BFG) – 587155 Nm³/hr</li> <li>BOF Gas (BOFG) – 14155 Nm³/hr</li> <li>Propane – 20 TPD</li> </ul>	195 MW	37224 m³/day	<ul> <li>Iron Ore (Fines) - 4.08 MTPA</li> <li>Iron ore (Lump) - 1.88 MTPA</li> <li>Coking Coal - 2.01 MTPA</li> <li>Non Coking Coal - 0.09 MTPA</li> <li>PCI Coal - 0.64 MTPA</li> <li>Limestone - 0.92 MTPA</li> <li>Dolomite - 0.41 MTPA</li> <li>Calcined lime-600 TPAS</li> </ul>	207.08 ha (68.33 ha -33.3% Greenbelt)		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)
Noted.	Noted.	Noted.	Noted.	Noted	Noted.	Nico	Соприансе мания

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)	Computation status
	H-	SO2 –551.8 Kg/hr	SO2 – 547 Kg/hr	,
7	Pollution Mitigation Measures	SHIPS	A COM STATE OF THE	
- 3	Air Pollution Control	-	Dry fogging and bag filter based DE system in	WML has installed the Dry Fogging system in material handling
		material handling	Charging and pushing Emission control in	Electrostatic Precipitator (ESP) based process gas
		<ul> <li>Charging and pushing</li> </ul>	coke ovens	cleaning and Bag Filter based DE system has already
	(2)	Emission control in coke	<ul> <li>low NOx stage combustion burners</li> </ul>	been installed.
		ovens	<ul> <li>Electrostatic Precipitator (ESP) based process</li> </ul>	El Company
		<ul> <li>Electrostatic Precipitator</li> </ul>	gas cleaning in Sinter plant and CPP	
		(ESP) based process gas	ESP based DE systems in BF Cast house, stock     SYAS	7
		CPP	and the property of the proper	
	~	<ul> <li>ESP based DE systems in</li> </ul>		
		and SMS		
		Bag filter based DE system		
		<ul> <li>low NOx oxy-fuel burners</li> </ul>		
3	Naise Pallution Control	• Plugging leakages in high-	Pluorino leakages in high-pressure gas/air	Point noted and are being complied.
t	TOTOL & CHARLES & COLOR	pressure gas/air pipelines.		
		<ul> <li>Reducing vibration of high</li> </ul>	<ul> <li>Reducing vibration of high speed rotating</li> </ul>	
		speed rotating machines by	machines by regular monitoring of vibration	
		regular monitoring of	and taking necessary steps.	
		necessary steps.	and pulpit operator's cabin.	
		<ul> <li>Design of absorber system</li> </ul>	<ul> <li>Noise absorber systems in pump houses.</li> </ul>	
		for the shift office and	• Noise level at 1m from equipment will be	
		Noise absorber systems in	<ul> <li>The fans and ductwork will be designed for</li> </ul>	
		pump houses.	minimum vibration.	ETA
		<ul> <li>Noise level at Im from equipment will be limited to 85 dR (A)</li> </ul>	All the equipment in different units will be designed/operated in such a way that the noise local thall not accord 85 dB (A)	UNIVE
				E THE PERSON OF

Sr Item	Total Capacity as per EC	Facilities/ Utilities after amendment in EC and	Compliance status
No.	recommended upper para 7 (ii)	subsequent partial transfer of DI Pipe Plant from EC of Parent Company (WML) to New Company (WDI)	
		Parent Company (WML)	
	be designed for minimum	outside plant premises.	
	vibration.	<ul> <li>Un-manned high noise zone will be</li> </ul>	
	<ul> <li>All the equipment in</li> </ul>	<ul> <li>marked as "High Noise Zone".</li> </ul>	
ě	different units will be	<ul> <li>In shops where measures are not feasible,</li> </ul>	
	designed/operated in such a	attempts shall be made to provide operators	
	way that the noise level	with sound-proof enclosure to operate the	
	shall not exceed 85 dB (A).	system.	
	<ul> <li>Periodical monitoring of</li> </ul>	<ul> <li>Workers exposed to noise level will be</li> </ul>	
	work zone noise and outside	provided with protection devices like earmuffs	
	plant premises.	and will be advised to use them regularly,	
	<ul> <li>Un-manned high noise zone</li> </ul>	while at work.	
	will be	<ul> <li>Workers exposed to noisy work place shall be</li> </ul>	
	<ul> <li>marked as "High Noise</li> </ul>		
	Zone".	<ul> <li>All workers will be regularly checked</li> </ul>	
	<ul> <li>In shops where measures</li> </ul>	medically for any noise related health problem	
	are not feasible, attempts	and if detected, they will be	
8	shall be made to	<ul> <li>provided with alternative duty.</li> </ul>	
	<ul> <li>provide operators with</li> </ul>	9	
	sound-proof enclosure to		
	operate the system.		
	<ul> <li>Workers exposed to noise</li> </ul>		
	level will be provided with		
	protection devices like		
	earmuits and will be		
	regularly, while at work		
	<ul> <li>Workers exposed to noisy</li> </ul>		
	work place shall be		
	provided with rotational		
	All workers will be		
	for any noise related health		
	problem and if detected,		となって
	they will be provided with		A Part of the last

4	ω		No.
Solid and Hazardous Wastes	Effluents Generation And Management		Item
<ul> <li>All non-hazardous solid wastes shall be utilized in- house in Sinter Plant/BOF.</li> <li>BF/BOF Slag shall be utilized in house or sold to</li> </ul>	<ul> <li>Zero Liquid Discharge outside plant boundary</li> <li>Effluent generated from coke ovens would be separately treated in Biological Oxidation and Dephenolization (BOD) treatment unit for removal of phenolic compounds and cyanide</li> <li>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</li> <li>water.</li> <li>Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level.</li> <li>ETP shall be provided for DI plant exclusively with the provision of safe handling of hazardous waste generated in DI plant.</li> </ul>	alternative duty.	Total Capacity as per EC recommended upper para 7 (ii)
<ul> <li>All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF.</li> <li>BF/BOF Slag shall be utilized in house or sold to cement manufacturers or used for road construction.</li> </ul>	<ul> <li>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</li> <li>Cooling tower blow downs and treated effluent from BOD plant of coke ovens would be taken to the CETP for further treatment and reuse</li> <li>as make-up water.</li> <li>Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and</li> <li>reduction of BOD level.</li> </ul>		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)
All non-hazardous solid wastes are being utilized in-house in Sinter Plant.      BF Slag are being sold to cement manufacturers.      All hazardous wastes are being blanded wastes.	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 of Gujarat Pollution Control Board.		Compliance status

	No.
	Item
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  100% use/recycle of solid waste generated in DI plant shall be ensured	Total Capacity as per EC recommended upper para 7 (ii)
<ul> <li>Coal tar sludge and BOD sludge would be recycled for coke making by mixing with the coal charge.</li> <li>All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms</li> </ul>	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)
authorized dealers for disposal as per statutory norms.	Compliance status

7 T.	6 10	5 PI	4 E	3 Z	2 ii V	. Bi	1 0	Specific Condition	No.	Sr.
Tree density in Green belt shall be 2500 trees per ha. WDI Plant shall have 36.6% green belt as committed by PP	100 % use / recycle of solid waste generated in DI plant shall be ensured.	PM level from the stacks shall be less than 30 mg/Nm3	ETP shall be provided for DI plant exclusively with the provision of safe handling of hazardous waste generated in DI Plant	Zn dust monitoring in AAQ in DI plant shall. He carried out.	Ventilation system for odour control in bitumen coating area shall be included.	1000 0000 0000	I be provided on all process stacks and the signal shall be received			Conditions
WML is in the process to develop green belt in and around the plant area.	Not applicable, DI plant is not part of this project.	We are maintaining PM level 30 mg/Nm3 from the all process stack.	Not applicable, DI plant is not part of this project.	Not applicable, DI plant is not part of this project.	Not applicable, as Bitumen coating is not occurring at our site.	control room for central control of APCDs installed in the plant. The CEMS has been connected to Gujrat Pollution Control Board & connection to Central Pollution Control board is under progress	We have already installed CEMS on all process stacks. The signal is being received in the plant			Compliance

2	-	19		П		ı	Gener	11	10	9	∞	Sr.
The project proponent shall monitor fligitive emissions in the plant premises at	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.	Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with (CAAQS) for monitoring AAQ parameters respect to standards prescribed in Environment (Protection) Rules 1986 as The CEMS has been connected to Guja amended from time to time. The CEMS and CAAOMS shall be connected to Pollution Control board is under progress.	The project proponent shall install 24*7 continuous emission monitoring Welspun Metallics Ltd. system at process stacks to monitor stack emission as well as Continuous process stacks to monit	and preservation	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.	Statutory compliance	General condition	PP shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system.	More efficient bags such as PTFE bags shall be used in the filter bag house and designed for 150% of normal design air flow	Validity of split ECs shall be from Feb 2017.	Both plants shall have their independent green belts	Conditions
Point noted and are being complied. (Report for monitoring Fugitive cmission of the Point noted and are being complied.)		(CAAQS) for monitoring AAQ parameters.  The CEMS has been connected to Gujarat Pollution Control Board & connection to Central Pollution Control board is under progress.	The project proponent shall install 24*7 continuous emission monitoring Welspun Metallics Ltd. has installed 24*7 Continuous Emission Monitoring System at all the system at process stacks to monitor stack to monitor stack emission as well as Continuous Ambient Air Quality Station		Point noted and are being complied.	7		Point noted.	More efficient bags such as PTFE bags are being used in the filter bag house and designed for 150% of normal design air flow.	Point noted.	Point noted and will be complied	Сопривисе

7	6	<i>S</i>	4	33		Zo.
Secondary emission control system shall be provided at SMS Converters.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	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	Sampling facility at process stacks and at quenching towers shall be provided Sampling as per CPCB guidelines for manual monitoring of emissions.  monitoring	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.	least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Conditions
Point noted and will be complied.	-	e 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.	facility at process g of emissions.	ed.	t laboratory has been attached.	
A CONTRACTOR	PU V	d ESP as well bag Filters for all the dust ulmerable sources, so as to comply prescribed	as per CPCB guidennes for ma			

	11 Facilities for coke oven by facility).  12 Land-based & IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII					
Monitor CO, HC and 02 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.  Varous absorbion system shall be provided in place of varous compression.	Monitor CO, HC and 02 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.  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. 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.  The coke oven gas shall be subjected to desulphurization if the Sulphur content in the coal exceeds 1%.  Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	O, HC and 02 in flue gases of the coke oven battery to determine engages and occurs of the coke oven battery to determine engages and cross leakages in the combustion chamber. Orption system shall be provided in place of vapour compression cooling of coke oven gas in case of recovery type coke ovens. In contrated ammonia liquor is incinerated, adopt high temperature in to destroy Dioxins and Furans. Suitable NOx control facilities ovided to meet the prescribed standards. Over gas shall be subjected to desulphurization if the Sulphathe coal exceeds 1%.  The fence and chemical spraying shall be provided on the ranck piles.  The ventilation system for adequate air changes, as per. prevailing the litterness, motor houses, Oil Cellars	O, HC and 02 in flue gases of the coke oven battery to detered ficiency and cross leakages in the combustion chamber. Orption system shall be provided in place of vapour compressic cooling of coke oven gas in case of recovery type coke ovens. In the determinant of the coke oven gas in case of recovery type coke ovens. In the coke oven gas in case of recovery type coke ovens. In the prescribed standards. Over gas shall be subjected to desulphurization if the Sulphuric oven gas shall be subjected to desulphurization if the Sulphuric oven gas shall be subjected to desulphurization if the Sulphuric oven gas coal exceeds 1%. It is provided on the rance provided to system for adequate air changes, as per prevailing the proponent shall install Dry Gas Cleaning Plant with bag filter face and SMS converter.	O, HC and 02 in flue gases of the coke oven battery to determ telliciency and cross leakages in the combustion chamber. Orption system shall be provided in place of vapour compression cooling of coke oven gas in case of recovery type coke ovens. It is contrated annunonia liquor is incinerated, adopt high temperature in to destroy Dioxins and Furans. Suitable NOx control facilition ovided to meet the prescribed standards.  Oven gas shall be subjected to desulphurization if the Sulphahe coal exceeds 1%.  The coal exceeds 1%.  The reference and chemical spraying shall be provided on the ranck piles.  Oventilation system for adequate air changes, as per prevailire that the coal install Dry Gas Cleaning Plant with bag filter face and SMS converter  The coal SMS converter of the coal coal of the coal coal of the coal coal coal coal coal coal coal coal	O, HC and 02 in flue gases of the coke oven battery to determine engineering entissions.  O, HC and 02 in flue gases of the coke oven battery to determine engineering and cross leakages in the combustion chamber.  Orption system shall be provided in place of vapour compression cooling of coke oven gas in case of recovery type coke ovens.  I centrated ammonia liquor is incinerated, adopt high temperature in to destroy Dioxins and Furans. Suitable NOx control facility ovided to meet the prescribed standards.  Oven gas shall be subjected to desulphurization if the Sulphahe coal exceeds 1%.  The coal exceeds 1%.  I ter fence and chemical spraying shall be provided on the rance proposent shall install Dry Gas Cleaning Plant with bag filter face and SMS converter  In the coal exceeds for installed along with power generation waste heat recovery from hot coke.  I allty monitoring and preservation	O, HC and 02 in flue gases of the coke pushing emissions. O, HC and 02 in flue gases of the coke oven battery to deterefficiency and cross leakages in the combustion chamber. Orption system shall be provided in place of vapour compression cooling of coke oven gas in case of recovery type coke ovens. Centrated ammonia liquor is incinerated, adopt high temperature in to destroy Dioxins and Furans. Suitable NOx control facility ovided to meet the prescribed standards.  Oven gas shall be subjected to desulphurization if the Sulphable coal exceeds 1%.  Ter fence and chemical spraying shall be provided on the rack piles.  Ventilation system for adequate air changes, as per prevailing the proponent shall install Dry Gas Cleaning Plant with bag filter face and SMS converter are and SMS converter ining (CDQ) system shall be installed along with power generation waste heat recovery from hot coke.  Iality monitoring and preservation  The transport of standards prescribed in Environment (Protection wide GSR 277 (F) dated 315t March 2012 (Interrated from the color of
	Point noted.  Point noted.  Point noted.		Point noted.  Point noted.  Point noted.  Point noted.  Complied.  M/s Welspun Metallics	Point noted.  Point noted.  Point noted.  Point noted.  Complied.  M/s Welspun Metallics  Waste Heat Recovery B	Point noted.  Point noted.  Point noted.  Point noted.  Complied.  M/s Welspun Metallics  Waste Heat Recovery B	Point noted.  Point noted.  Point noted.  Point noted.  Complied.  M/s Welspun Metallics  Waste Heat Recovery B  Waste Heat Recovery B
	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.  Design the ventilation system for adequate air changes, as per prevailing norms for all tunnels, motor houses, Oil Cellars	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.  Design the ventilation system for adequate air changes, as per. prevailing norms for all tunnels, motor houses, Oil Cellars  The project proponent shall install Dry Gas Cleaning Plant with bag filter for M/s Welspun Metallics  Blast Furnace and SMS converter	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.  Design the ventilation system for adequate air changes, as per. prevailing norms for all. tunnels, motor houses, Oil Cellars  The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter  Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke.	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.  Design the ventilation system for adequate air changes, as per. prevailing norms for all. tunnels, motor houses, Oil Cellars  The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter  Dry quenching (CDQ) system shall be installed along with power generation Waste Heat Recovery B facility from waste heat recovery from hot coke.	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.  Design the ventilation system for adequate air changes, as per. prevailing norms for all. tunnels, motor houses, Oil Cellars  The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter  Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke.  Water Quality monitoring and preservation  The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection)  Rules 1086 vide GSR 277 (E) dated 315t March 2012 (Integrated iron &
The coke oven gas shall be subjected to desulphurization if the Sulphur content in the coal exceeds 1%.		Design the ventilation system for adequate air changes, as per. prevailing norms for all tunnels, motor houses, Oil Cellars	Design the ventilation system for adequate air changes, as per. prevailing norms for all. tunnels, motor houses, Oil Cellars  The project proponent shall install Dry Gas Cleaning Plant with bag filter for Complied.  Blast Furnace and SMS converter  M/s Welspun Metallics	Design the ventilation system for adequate air changes, as per. prevailing norms for all. tunnels, motor houses, Oil Cellars  The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter  Dry quenching (CDQ) system shall be installed along with power generation Waste Heat Recovery B facility from waste heat recovery from hot coke.	Design the ventilation system for adequate air changes, as per. prevailing norms for all. tunnels, motor houses, Oil Cellars  The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter  Dry quenching (CDQ) system shall be installed along with power generation Waste Heat Recovery B facility from waste heat recovery from hot coke.  Water Quality monitoring and preservation	Design the ventilation system for adequate air changes, as per. prevailing norms for all. tunnels, motor houses, Oil Cellars  The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter  Dry quenching (CDQ) system shall be installed along with power generation Waste Heat Recovery Brillips 1086 vide GSR 277 (F) dated 315t March 2012 (Integrated iron & Continuous Effluent from & Continuous Effluent fr

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Water meters shall be provided at the inlet to all unit processes in the steel	Treated water from ETP of COBP shall not be used for coke quenching.	The project proponent shall practice rainwater harvesting to maximum possible extent.	water to ensure optimal recycling of treated water for converter gas cleaning.	CO2 injection shall be provided in GCP of SMS to reduce pH in circulating	Tyre washing facilities shall be provided at the entrance of the plant gates.	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.	wastewater to meet the prescribed standards.	Sewage Treatment Plant shall be provided for treatment of domestic	Adhere to 'Zero Liquid Discharge'	amended from time to time; S.O. 3305 (E) dated /th December 2013 (Thermal Power Plants) as amended from time to time as amended from time to time;	(Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as	meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012	The project arounds shall arounds the ETD for cole organ and he product to	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.	COMMINANO	Conditions
Water meters have been installed to all unit process in the steet plant.		Point noted and rain water are being stored to our Lagoon(rond).		Point noted.	Point noted and Shall be complied.	Point noted and being complied.		Domestic waste water of M/s WML is sent to M/s WIL for further treatment.	Noted and agreed to complied.			water coming from quer	We have installed non recovery type coke oven plant We have provided settling pond for the	We are using fresh water from our sister company WIL.	Company Company	Comphance

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Restrict Gas flaring to < 1%.	Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Noted Machine; Sinter Cooler, and all reheating furnaces and if feasible shall be installed.	gas or process gas exceeds 300°C.	Waste heat recovery systems shall be provided in all units where the flue	Use hot charging of slabs and billets/blooms as far as possible.	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.	Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines.	Coke Dry Quenching (CDQ) shall be provided for coke quenching for the coke oven plant.	The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces.	Energy Conservation measures	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.	Noise monitoring and prevention	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.	Conditions
Point noted and will be complied.		coke oven plant.		Point noted and will be complied.	Point noted and are being complied.	Waste heat are being recovers from sinter plant cooler & Machines and are being sent to coke oven plant for coke drying.	Point noted.	Point noted and will be complied.		Point noted and are being complied & report has been attached as a part of six-monthly compliance.		Point noted and will be complied.	Comphance

-	VII.	9	∞	7	6	5	4	ယ	2	-	VI.	11	10	9	No.
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.	Green Belt	Kitchen waste shall be composted or converted to biogas for further use.	ovided in oil cellars to collect and reuse/recycle shall be provided under coils on saddles in cold	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.	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.	Used refractories shall be recycled as far as possible.	Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.	Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.	Tar Sludge and waste oil shall be blended with coal charged in coke ovens.	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.	Waste management	Ensure installation of regenerative type burners on all reheating furnaces.	Provide LED lights in their offices and residential areas.	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;	Conditions
Point noted and shall be complied.	SAETALL	Point noted and will be complied.	Noted.	Point noted and will be complied.	Point noted.SMS plant is not installed yet and will be complied after installation & commissioning of SMS plant.	Point noted and will be complied.	Point noted.	Point noted and being Practiced.	Point noted and will be complied.	Point noted.		Noted.	The company has provided LED lights in their offices and residential areas.	Noted.	Соприансе

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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 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.	Miscellaneous	A separate Environmental Cell both at the project and company head quarter Complied. level, with qualified personnel shall be set up under the control of senior A separate Executive, who will directly to the head of the organization.	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 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.	Corporate Environment Responsibility	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	The project proponent shall carry out heat stress analysis for the workmen who We are regularly work in high temperature work zone and provide Personal Protection the Factory Act. Equipment (PPE) as per the norms of Factory Act.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Public hearing and Human health issues	Conditions
The copies of the EC have been submitted to all relevant offices of the government.	Complied  We have already Published the EC in two local newspapers		A separate Environmental Cell both at the project and company head quarter Complied.  level, with qualified personnel shall be set up under the control of senior A separate Environment Management Cell has been set up, with qualified personnel under the Executive, who will directly to the head of the organization.  Executive, who will directly to the head of the organization.	The company have a well laid Environmental Policy.  Point noted and will be complied.	Point noted and will be complied.		Point noted and will be complied.	providin	Point noted and will be complied.		Compliance

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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.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	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.	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).	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	The project proponent shall inform the Regional Office as well as the Welspun Metallics Ltd. (WML) has commissioned of its state Ministry, the date of financial closure and final approval of the project by the plant on 21/07/2022. concerned authorities, commencing the land development work and start of Coke oven Plant & Air separation unit has been commissioned production operation by the project	The project proponent shall submit the environmental statement for each M/s WML has submit the environmental statement financial year in Form-V to the concerned State pollution control Pollution Form-V to the Gujarat State Pollution Control Board Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	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 portal.	The project proponent shall monitor the criteria pollutants level namely; PM, SO2, NOx (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.	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.	Conditions
Point noted and will be complied.	Noted.	Noted.	Noted.	Point noted and will be complied.	Point noted and are being complied.	as the Welspun Metallics Ltd. (WML) has commissioned of its state-of-the-art Blast Furnace and Sinter t by the plant on 21/07/2022.  start of Coke oven Plant & Air separation unit has been commissioned.	M/s WML has submit th Form-V to the Gujarat St	Point noted & Agreed to Complied.	Point noted and being complied.	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.	Compliance

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preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Any appeal against this EC shall lie with the National Green Tribunal, if Noted		Conditions
THE TAKE	od.		Compliance

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Ref. No.: 9001/04/2023-24

Date: 01/05/2023

## 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	चलक		Blast Furnace (Stove Stack)
02	Date of Sampling			28/04/2023
03	Time of Sampling			10:30
04	Air Pollution Control Measures			
05	Stack Height	Meter		60
06	Stack Temperature	°C		135
07	Ambient Temperature	° C		29
08	Average Velocity of Flue Gases	M/Sec.		8.1
09	Isokinetic flow rate for P.M. Sampling	LPM		22
10	P.M.	mg/Nm <sup>3</sup>	30	25
11	SO2	mg/Nm <sup>3</sup>	200	27.6
12	NOx	mg/Nm <sup>3</sup>	150	33.4

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022

Rajkot

\* Permissible limits as per GPCB CC&A



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Ref. No.: 9002/04/2023-24

Date: 01/05/2023

# 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			27/04/2023	27/04/2023
03	Time of Sampling			10:45	11:30
04	Air Pollution Control Measures			Common ESP	Bag Filter
05	Stack Height	Meter	<u> 1450 D</u>	70	50
06	Stack Temperature	° C		134	105
07	Ambient Temperature	°C		31	30
08	Average Velocity of Flue Gases	M/Sec.		7.1	7.8
09	Isokinetic flow rate for P.M. Sampling	LPM		19	20
10	P.M.	mg/Nm <sup>3</sup>	30	24.1	26.1

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.: 9003/04/2023-24

Date: 01/05/2023

# 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. 1	Location No. 2	Location No. 3
01.	Location of Sampling	20 60 00 W	-	Nr. BF Area	Nr. Sinter Plant	Nr. Coke Oven Unit
02.	Date of sampling			26/04/2023	26/04/2023	26/04/2023
03.	Time of sampling	Hr.		10:15	010:30	10:45
04.	Dominant Wind Direction (From)			NW	NE	NE
05.	Wind Speed	Km./Hr.		1 to 15	1 to 15	1 to 15
06.	Average flow rate during sampling	m³/minute		1.20	1.20	1.10
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
08	PM 2.5	μg/m³	60	25.1	34.5	29.4
09	PM 10	μg/m³	100	47.1	53.4	56.1
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	18.4	19.5	17.4
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	26.5	26.5	30.0

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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.: 9004/04/2023-24

Date: 01/05/2023

## 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			27/04/2023	27/04/2023	27/04/2023
03.	Time of sampling	Hr.		10:00	10:20	10:45
04.	Dominant Wind Direction (From)			NW	NW	NE
05.	Wind Speed	Km./Hr.	**	3 to 16	3 to 16	3 to 16
06.	Average flow rate during sampling	m³/minute		1.10	1.10	1.10
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
08	PM 2.5	μg/m³	60	28.4	30.6	34.5
09	PM 10	μg/m³	100	52.4	50.4	54.6
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	22.1	24.5	18.6
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	26.7	27.6	30.4

Rajkot

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.: 9005/04/2023-24

Date: 01/05/2023

#### 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			28/04/2023	28/04/2023	28/04/2023
03.	Time of sampling	Hr.		11:00	12:00	11:25
04.	Dominant Wind Direction (From)	190 00 00		NW	NW	NE
05.	Wind Speed	Km./Hr.		1 to 18	1 to 18	1 to 18
06.	Average flow rate during sampling	m³/minute	(**)	1.20	1.10	1.20
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
08	PM 2.5	μg/m³	60	31.2	27.5	26.4
09	PM 10	μg/m³	100	50.1	56.6	58.4
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	17.6	15.2	16.3
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	26.4	29.4	27.6

Rajkot

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.: 9006/04/2023-24

Date: 01/05/2023

#### 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: 28/04/2023

Sample Collected by : Royal Environment

Sr. No.	Location of Sampling	Permissible Limits dB(A)	Results in dB(A) (Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A)	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM	
Monitoring is carried out during		Day Time	01:00 - 02:00 PM	Night Time	01:00 - 02:00 AM	
01.	Nr. BF Area	75	69.2	70	55.4	
02.	Nr. Sinter Plant	75	70.1	70	56.4	
03.	Nr. Coke Oven Unit	75	67.5	70	62.4	
04.	Nr. Oxygen Plant	75	68.2	70	57.6	
05.	Nr. Admin Office	75	66.5	70	55.4	

		CPCB Standards	
Area	Cotogony of Area 17ano	Limit in o	dB(A) Leq.
Code	Category of Area / Zone	Day Time	Night Time
Α	Industrial Area	75.0	70.0
В	Commercial Area	65.0	55.0
С	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







Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 00 Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 10001/05/2023-24

Date: 01/06/2023

## 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			31/05/2023
03	Time of Sampling			15:30
04	Air Pollution Control Measures			
05	Stack Height	Meter		60
06	Stack Temperature	° C		135
07	Ambient Temperature	°C		29
08	Average Velocity of Flue Gases	M/Sec.		8.1
09	Isokinetic flow rate for P.M. Sampling	LPM		22
10	P.M.	mg/Nm <sup>3</sup>	30	18
11	SO2	mg/Nm <sup>3</sup>	200	26.7
12	NOx	mg/Nm <sup>3</sup>	150	31.5

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022

\* Permissible limits as per GPCB CC&A

Rajkot



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 00 Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 9002/05/2023-24

Date: 01/06/2023

## 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		2	31/05/2023	31/05/2023
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		145	115
07	Ambient Temperature	°C		30	30
08	Average Velocity of Flue Gases	M/Sec.		7.6	7.1
09	Isokinetic flow rate for P.M. Sampling	LPM		20	21
10	P.M.	mg/Nm³	30	25.4	27.1

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022

Rajkot S

\* Permissible limits as per GPCB CC&A





Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 00 Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 10003/05/2023-24

Date: 01/06/2023

## 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. 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			31/05/2023	31/05/2023	31/05/2023
03.	Time of sampling	Hr.		10:30	10:45	11:00
04.	Dominant Wind Direction (From)			NW	NE	NE
05.	Wind Speed	Km./Hr.	-	2 to 18	2 to 18	2 to 18
06.	Average flow rate during sampling	m³/minute		1.20	1.20	1.10
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
80	PM 2.5	μg/m <sup>3</sup>	60	42.5	40.5	46.8
09	PM 10	μg/m³	100	68.5	69.8	70.1
10	Measured Concentration of SO <sub>2</sub>	µg/m³	80	19.2	20.1	17.8
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	27.4	25.6	29.7

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.







Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 00 Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 9004/05/2023-24

Date: 01/06/2023

#### 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			30/05/2023	30/05/2023	30/05/2023
03.	Time of sampling	Hr.		10:15	10:30	10:45
04.	Dominant Wind Direction (From)			NW	NW	NE
05.	Wind Speed	Km./Hr.		1 to 16	1 to 16	1 to 16
06.	Average flow rate during sampling	m <sup>3</sup> /minute		1.10	1.10	1.10
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
80	PM 2.5	μg/m³	60	29.2	31.4	48.5
09	PM 10	μg/m³	100	59.4	65.4	67.8
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	23.1	25.4	19.2
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	29.8	27.5	31.5

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.







Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 00 Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 10005/05/2023-24

Date: 01/06/2023

### 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		-	29/05/2023	29/05/2023	29/05/2023
03.	Time of sampling	Hr.	-	11:00	11:30	11:45
04.	Dominant Wind Direction (From)		-	NW	NW	NE
05.	Wind Speed	Km./Hr.	-	2 to 15	2 to 15	2 to 15
06.	Average flow rate during sampling	m³/minute	-	1.20	1.10	1.20
07.	Average flow rate for Gas sampling	LPM	-	0.2	0.2	0.2
08	PM 2.5	μg/m³	60	35.4	39.4	37.4
09	PM 10	µg/m³	100	52.1	58.7	55.4
10	Measured Concentration of SO <sub>2</sub>	µg/m³	80	16.4	17.4	18.9
11	Measured Concentration of NO <sub>2</sub>	µg/m³	80	29.4	27.4	28.9

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.







Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 00 Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 10006/05/2023-24

Date: 01/06/2023

#### 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: 31/05/2023

Sample Collected by : Royal Environment

C- N-	ltit Cli		Results in dB(A)		Results in dB(A) (Night Time) 10:00 PM - 6:00 AM	
Sr. No.	Location of Sampling	Permissible Limits dB(A) Day Time	(Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A) Night Time		
Monitoring is carried out during		200,000	01:00 - 02:00 PM	States - according to	01:00 - 02:00 AM	
01.	Nr. BF Area	75	68.5	70	53.5	
02.	Nr. Sinter Plant	75	71.1	70	57.5	
03.	Nr. Coke Oven Unit	75	68.7	70	61.2	
04.	Nr. Oxygen Plant	75	66.9	70	59.7	
05.	Nr. Admin Office	75	69.7	70	58.9	

		CPCB Standards	
Area	Category of Area / Zone	Limit in o	dB(A) Leq.
Code	Category of Area / Zone	Day Time	Night Time
Α	Industrial Area	75.0	70.0
В	Commercial Area	65.0	55.0
С	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







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

Ref. No.: 8007/05/2022-23

Date: 01/06/2023

#### WORK ZONE NOISE 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: 31/05/2023

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		02:00 to 3:00 PM
BF Plant			
01	Cast House	85	80.5
02	PCM	85	81.6
03	Stock House	85	83.1
04	GCP	85	79.5
05	Stoves	85	80.4
06	Blower	85	78.9
07	PCI	85	82.5
Sinter Plant			
08	Proportionate Building	85	77.4
09	Waste Gas Fan	85	78.4
10	Sinter Machine	85	82.5
11	Screen House	85	77.4
12	Crushing House	85	78.5

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









Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 00 Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 8008/05/2022-23

Date: 01/06/2023

#### 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: 31/05/2023

Sample Collected by : Royal Environment

Sr. No.	Area	Monitoring Location	Permissible Limit**	SPM Level (µg/Nm³)	
Monitoring is carried out during		ng		11:20 to 11:50 AM	
01	BF - Plant	Cast House	3000	2015	
02	BF - Plant	Stock House	3000	2569	
03	Sinter Plant	Sinter Plant Area	3000	2234	

instruments Used: HVS APM 430, RDS-AAS 217, Calibration done on.: 28/12/2021

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







Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 00 Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 8009/05/2022-23

Date: 01/06/2023

### 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: 31/05/2023

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
Monitorii	ng is carried out during	03:00 to 04:00 PM	11:30 to 12:30 PM	
01	Sinter-Crusher house	200	442	321
02	Sinter-Prop. Building	200	410	310
03	Sinter-Waste Gas Fan	300	455	345
04	Sinter Machine	300	490	365
05	Sinter-Circuler Cooler	300	470	300
06	Sinter-Fabrication Yard	300	490	310
07	Sinter-Screen House	200	420	347
08	BF - Plant, Casting Floor	300	436	325
09	BF - Plant, Stock House	200	435	305

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

Calibration done on: 02/09/2021





Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 00: Ph.: +91 9099919954 E-mail: royalenvironment@live.com admin@royalconsultancy.com

Ref. No.: 8011/05/2022-23

Date: 01/06/2023

### WATER SAMPLE ANALYSIS REPORT

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: 31/05/2023

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			28
04.	Turbidity	NTU	1	5	NIL
05.	рН	pH Unit	6.5 to 8.5	No Relaxation	7.21
06.	T.D.S.	Mg/L	500	2000	145
07.	Total Hardness	Mg/L	200	600	40
08.	Ca as Ca	Mg/L	75	200	7.5
09.	Mg as Mg	Mg/L	30	100	5.2
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	36.4
15.	Sulphate	Mg/L	200	400	9.2
16.	Nitrate	Mg/L	45	No Relaxation	3.1
17.	Fluoride	Mg/L	1.0	1.5	0.03
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	41.0
21.	E - Coli	Coli	e griting		Absent

<sup>(\*)</sup> 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

Date: 01/06/2023

No.: 8010/05/2022-23

# Form No. 37 WORK PLACE MONITORING REPORT

ster 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 Mettalics Ltd., Anjar, Kutch.

2 Raw materials, by products and finished products involved in the process. TOTAL DUST

3 Particulars of sampling

Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborr	Airborne Contamination	ination	TWA** concertration (As given in Second Schedule)	Refrance Method	Number of Workers exposed at the location being	Remarks	Signature person taking samples	Name (in block letters)
			Number of sample	Range	Average	Mg/m³		monitored		•	
Sinter-Crusher house	Total Dust		2	3.2-4.5	3.85	10		7	and the same of th		
Sinter-Prop. Building	Total Dust		2	2.7-3.1	2.90	10		5			
Sinter-Waste Gas Fan	Total Dust		2	1.5-1.6	1,55	10		8	Time to		
Sinter Machine	Total Dust	Personal	2	3.1-4.3	3.70	10		4	-	0	
Sinter-Circuler Cooler	Total Dust	Respirable Dust sampler	2	2.8-3.4	3.10	10	Gravimetric	5	1	D	Mr. HARSHIL PATEL
Sinter-Fabrication Yard	Total Dust	VPDS 203	2	3.5-3.9	3.70	10		4	1		
Sinter-Screen House	Total Dust		2	4.5-5	4.75	10		8	1		
BF - Plant, Casting Floor	Total Dust		2	2.9-3.5	3.20	10		4	i		
BF - Plant, Stock House	Total Dust		2	2.6-3.1	ng 2.85	10		2	1		
imissible limits (TWA) are as per ACGIH Standards.	ACGIH Standards.			1000	,000						

ration Done On.: 16/01/2023

al Environment Auditing & Consultancy Service

For. Royal Environment Auditing & Consultancy

Authorized Sign



Ref. No.: 11001/06/2023-24

Date: 01/07/2023

# 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		00 KB KB	Blast Furnace (Stove Stack)
02	Date of Sampling			23/06/2023
03	Time of Sampling			12.00
04	Air Pollution Control Measures			
05	Stack Height	Meter	20 0000	60
06	Stack Temperature	°C		137
07	Ambient Temperature	°C		30
08	Average Velocity of Flue Gases	M/Sec.		7.9
09	Isokinetic flow rate for P.M. Sampling	LPM		21
10	P.M.	mg/Nm <sup>3</sup>	30	17.32
11	SO2	mg/Nm <sup>3</sup>	200	21.6
12	NOx	mg/Nm <sup>3</sup>	150	28.4

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022



\* Permissible limits as per GPCB CC&A



Ref. No.: 10002/06/2023-24

Date: 01/07/2023

# 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	1000	***	24/06/2023	24/06/2023
03	Time of Sampling			10.45	12.30
04	Air Pollution Control Measures	502		Common ESP	Bag Filter
05	Stack Height	Meter		70	50
06	Stack Temperature	° C		148	112
07	Ambient Temperature	° C		31	32
08	Average Velocity of Flue Gases	M/Sec.		6.9	7.3
09	Isokinetic flow rate for P.M. Sampling	LPM	-	21	20
10	P.M.	mg/Nm <sup>3</sup>	30	24.2	26.3

Instruments Used: Ecotech stack monitoring kit ESS - 100,

\* Permissible limits as per GPCB CC&A

Calibration Done On.: 26/12/2022







Ref. No.: 11003/06/2023-24

Date: 01/07/2023

# 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. 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			23/06/2023	23/06/2023	23/06/2023
03.	Time of sampling	Hr.		10.00	10.30	11.00
04.	Dominant Wind Direction (From)	2002	-	SE	SE	SE
05.	Wind Speed	Km./Hr.	-	2 to 13	2 to 13	2 to 13
06.	Average flow rate during sampling	m³/minute	-	1.10	1.10	1.20
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
08	PM 2.5	μg/m³	60	33.6	31.5	29.8
09	PM 10	μg/m³	100	52.3	51.6	49.8
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	16.5	12.8	14.3
11	Measured Concentration of NO <sub>2</sub>	μg/m <sup>3</sup>	80	16.4	18.2	17.3

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.









Ref. No.: 11005/06/2023-24

Date: 01/07/2023

# 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			24/06/2023	24/06/2023	24/06/2023
03.	Time of sampling	Hr.		10.00	10.30	11.15
04.	Dominant Wind Direction (From)	Marion Colonia		NE	NE	NE
05.	Wind Speed	Km./Hr.	-	2 to 11	2 to 11	2 to 11
06.	Average flow rate during sampling	m³/minute		1.10	1.20	1.10
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
80	PM 2.5	μg/m³	60	31.6	34.2	29.8
09	PM 10	μg/m³	100	49.6	52.7	51.6
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	14.3	15.4	13.6
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	17.6	16.8	18.1

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.







Ref. No.: 11005/06/2023-24

Date: 01/07/2023

#### 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		200	24/06/2023	24/06/2023	24/06/2023
03.	Time of sampling	Hr.		10.00	10.30	11.15
04.	Dominant Wind Direction (From)		-	NE	NE	NE
05.	Wind Speed	Km./Hr.		2 to 11	2 to 11	2 to 11
06.	Average flow rate during sampling	m³/minute		1.10	1.20	1.10
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
80	PM 2.5	μg/m³	60	31.6	34.2	29.8
09	PM 10	μg/m³	100	49.6	52.7	51.6
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	14.3	15.4	13.6
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	17.6	16.8	18.1

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.







Ref. No.: 11006/06/2023-24

Date: 01/07/2023

## 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: 24/06/2023

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
Monito	ring is carried out during		01:00 - 02:00 PM		01:00 - 02:00 AM
01.	Nr. BF Area	75	67.5	70	54.1
02.	Nr. Sinter Plant	75	70.3	70	55.6
03.	Nr. Coke Oven Unit	75	67.2	70	58.7
04.	Nr. Oxygen Plant	75	65.3	70	59.1
05.	Nr. Admin Office	75	68.4	70	57.6

		CPCB Standards	
Area	Category of Area / Zone	Limit in o	dB(A) Leq.
Code	Oategory of Area / Zone	Day Time	Night Time
Α	Industrial Area	75.0	70.0
В	Commercial Area	65.0	55.0
С	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







Ref. No.: 21001/07/2023-24

Date: 02/08/2023

# 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	Ch see see		Blast Furnace (Stove Stack)
02	Date of Sampling			27/07/2023
03	Time of Sampling			11.30
04	Air Pollution Control Measures			( <b>**</b>
05	Stack Height	Meter		60
06	Stack Temperature	° C		135
07	Ambient Temperature	° C		31
08	Average Velocity of Flue Gases	M/Sec.		8.1
09	Isokinetic flow rate for P.M. Sampling	LPM		20
10	P.M.	mg/Nm <sup>3</sup>	30	16.14
11	SO2	mg/Nm <sup>3</sup>	200	23.4
12	NOx	mg/Nm <sup>3</sup>	150	27.2

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022



\* Permissible limits as per GPCB CC&A





Ref. No.: 20002/07/2023-24

Date: 02/08/2023

# 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	- <u></u>		28/07/2023	28/07/2023
03	Time of Sampling	<del> </del>		11.15	14.30
04	Air Pollution Control Measures			Common ESP	Bag Filter
05	Stack Height	Meter		70	50
06	Stack Temperature	°C		150	113
07	Ambient Temperature	° C		30	31
08	Average Velocity of Flue Gases	M/Sec.		7.4	7.8
09	Isokinetic flow rate for P.M. Sampling	LPM		22	21
10	P.M.	mg/Nm <sup>3</sup>	30	26.4	24.3

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022

\* Permissible limits as per GPCB CC&A



Royal Environment Auditing & Consultancy Service



Ref. No.: 21003/07/2023-24

Date: 02/08/2023

# 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. 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			27/07/2023	27/07/2023	27/07/2023
03.	Time of sampling	Hr.	**	9.30	10	10.30
04.	Dominant Wind Direction (From)		600	SE	SE	SE
05.	Wind Speed	Km./Hr.	no be	3 to 14	3 to 14	3 to 14
06.	Average flow rate during sampling	m³/minute	***	1.15	1.25	1.20
07.	Average flow rate for Gas sampling	LPM	69 (25	0.2	0.2	0.2
08	PM 2.5	μg/m³	60	34.8	32.4	28.4
09	PM 10	μg/m³	100	52.3	51.6	50.8
10	Measured Concentration of SO <sub>2</sub>	µg/m³	80	14.5	15.4	16.4
11	Measured Concentration of NO <sub>2</sub>	μg/m <sup>3</sup>	80	16.8	20.5	15.4

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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Ref. No.: 20004/07/2023-24

Date: 02/08/2023

# 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	0000		Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling			28/07/2023	28/07/2023	28/07/2023
03.	Time of sampling	Hr.		10.30	11.30	12.00
04.	Dominant Wind Direction (From)	danie.		SE	SE	SE
05.	Wind Speed	Km./Hr.		3 to 14	3 to 14	3 to 14
06.	Average flow rate during sampling	m³/minute		1.25	1.15	1.20
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
08	PM 2.5	μg/m³	60	31.2	33.4	30.1
09	PM 10	μg/m³	100	53.5	51.1	50.9
10	Measured Concentration of SO <sub>2</sub>	µg/m³	80	16.4	14.8	15.4
11	Measured Concentration of NO <sub>2</sub>	µg/m³	80	17.7	19.4	188

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



Ref. No.: 21005/07/2023-24

Date: 02/08/2023

#### 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	9800	(-ma)	Nr. Coal/ Coke Yard	Nr. Canteen (Bramhasthan)	Nr. Health Center
02.	Date of sampling			01/08/2023	01/08/2023	01/08/2023
03.	Time of sampling	Hr.		9.45	10.15	10.45
04.	Dominant Wind Direction (From)		***	NE	NE	NE
05.	Wind Speed	Km./Hr.		3 to 12	3 to 12	3 to 12
06.	Average flow rate during sampling	m <sup>3</sup> /minute	-	1.20	1.25	1.15
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
80	PM 2.5	μg/m³	60	31.9	33.1	31.1
09	PM 10	µg/m³	100	50.9	51.4	53.1
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	15.5	17.8	14.9
11	Measured Concentration of NO <sub>2</sub>	μg/m <sup>3</sup>	80	19.2	18.7	16.3

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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



Ref. No.: 21006/07/2023-24

Date: 02/08/2023

## 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: 27/07/2023

Sample Collected by : Royal Environment

Sr. No.	Location of Sampling	Limits dB(A) 6:00 AM - 10:00 PM		Permissible Limits dB(A)	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM	
Monitoring is carried out during		Day Time	01:00 - 02:00 PM	Night Time	01:00 - 02:00 AM	
01.	Nr. BF Area	75	68.5	70	58.7	
02.	Nr. Sinter Plant	75	64.4	70	56.4	
03.	Nr. Coke Oven Unit	75	67.4	70	54.3	
04.	Nr. Oxygen Plant	75	62.8	70	58.7	
05.	Nr. Admin Office	75	70.1	70	59.4	

CPCB Standards							
Area	Category of Area / Zone	Limit in c	iB(A) Leq.				
Code	Category of Area / Zone	Day Time	Night Time				
Α	Industrial Area	75.0	70.0				
В	Commercial Area	65.0	55.0				
С	Residential Area	55.0	45.0				
D	Silence Zone	50.0	40.0				

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

Royal Environment Auditing & Consultancy Service



Ref. No.: 41001/08/2023-24

Date: 01/09/2023

# 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			17/08/2023
03	Time of Sampling	79 1940		11:15
04	Air Pollution Control Measures	Q#0		
05	Stack Height	Meter		60
06	Stack Temperature	°C	MM-0	133
07	Ambient Temperature	° C	an 100 fee	30
08	Average Velocity of Flue Gases	M/Sec.		7.9
09	Isokinetic flow rate for P.M. Sampling	LPM	par en en	21
10	P.M.	mg/Nm <sup>3</sup>	30	15.1
11	SO2	mg/Nm <sup>3</sup>	200	23.6
12	NOx	mg/Nm <sup>3</sup>	150	29.4

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022

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\* Permissible limits as per GPCB CC&A





Ref. No.: 30002/08/2023-24

Date: 01/09/2023

#### 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	4000 M		Common Stack (Sinter & BF) Plant	Sinter (De-dusting system)
02	Date of Sampling			17/08/2023	
03	Time of Sampling	15 15 15	i i i i i i i i i i i i i i i i i i i	11.30	
04	Air Pollution Control Measures	man.		Common ESP	Bag Filter
05	Stack Height	Meter		70	50
06	Stack Temperature	°C		148	Not
07	Ambient Temperature	° C	***	31	Running
08	Average Velocity of Flue Gases	M/Sec.		7.3	During Visit
09	Isokinetic flow rate for P.M. Sampling	LPM		21	
10	P.M.	mg/Nm <sup>3</sup>	30	24.2	

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.: 31003/08/2023-24

Date: 01/09/2023

# 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. 1	Location No. 2	Location No. 3
01.	Location of Sampling	core		Nr. BF Area	Nr. Sinter Plant	Nr. Coke Oven Unit
02.	Date of sampling			17/08/2023	17/08/2023	17/08/2023
03.	Time of sampling	Hr.		9.15	9.45	10.15
04.	Dominant Wind Direction (From)			SE	SE	SE
05.	Wind Speed	Km./Hr.	-	3 to 14	3 to 14	3 to 14
06.	Average flow rate during sampling	m³/minute	-	1.10	1.15	1.20
07.	Average flow rate for Gas sampling	LPM	me.	0.2	0.2	0.2
08	PM 2.5	μg/m³	60	35.7	33.6	30.2
09	PM 10	μg/m³	100	55.2	53.4	51.6
10	Measured Concentration of SO <sub>2</sub>	µg/m³	80	13.9	16.4	17.2
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	16.2	22.1	14.8

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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.: 30004/08/2023-24

Date: 01/09/2023

# 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	- www		Nr. Oxygen Plant	Nr. Admin Office	Nr. Stock House
02.	Date of sampling			18/08/2023	18/08/2023	18/08/2023
03.	Time of sampling	Hr.		10.15	11.15	11.45
04.	Dominant Wind Direction (From)		ac.	SE	SE	SE
05.	Wind Speed	Km./Hr.		2 to 16	2 to 16	2 to 16
06.	Average flow rate during sampling	m <sup>3</sup> /minute		1.20	1.10	1.15
07.	Average flow rate for Gas sampling	LPM	-	0.2	0.2	0.2
08	PM 2.5	µg/m³	60	28.9	29.8	30.1
09	PM 10	μg/m³	100	55.1	53.6	52.4
10	Measured Concentration of SO <sub>2</sub>	µg/m³	80	18.2	15.9	16.7
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	16.4	20.3	19.3

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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



Ref. No.: 31005/08/2023-24

Date: 01/09/2023

#### 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		one.	18/08/2023	18/08/2023	18/08/2023
03.	Time of sampling	Hr.	wa	9.30	10.00	10.30
04.	Dominant Wind Direction (From)	and the last	627 OC	NE	NE	NE
05.	Wind Speed	Km./Hr.	940	2 to 16	2 to 16	2 to 16
06.	Average flow rate during sampling	m³/minute	25-45	1.15	1.20	1.25
07.	Average flow rate for Gas sampling	LPM	50	0.2	0.2	0.2
08	PM 2.5	μg/m³	60	32.1	31.6	30.8
09	PM 10	μg/m <sup>3</sup>	100	52.1	53.4	55.2
10	Measured Concentration of SO <sub>2</sub>	μg/m <sup>3</sup>	80	16.7	16.2	15.6
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	16.2	15.4	13.7

Rajkot

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.





Ref. No.: 31006/08/2023-24

Date: 01/09/2023

# 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: 18/08/2023

Sample Collected by : Royal Environment

Sr. No.	Location of Sampling	Permissible Limits dB(A)	Results in dB(A) (Day Time) 6:00 AM - 10:00 PM	Permissible Limits dB(A)	Results in dB(A) (Night Time) 10:00 PM - 6:00 AM	
Monitoring is carried out during		Day Time	01:30 - 02:30 PM	Night Time	01:30 - 02:30 AM	
01.	Nr. BF Area	75	67.2	70	54.5	
02.	Nr. Sinter Plant	75	69.4	70	58.6	
03.	Nr. Coke Oven Unit	75	65.8	70	54.6	
04.	Nr. Oxygen Plant	75	67.3	70	58.7	
05.	Nr. Admin Office	75	62.6	70	59.3	

	×	CPCB Standards	
Area	0-1	Limit in o	iB(A) Leq.
Code	Category of Area / Zone	Day Time	Night Time
Α	Industrial Area	75.0	70.0
В	Commercial Area	65.0	55.0
С	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Rajkot

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

Royal Environment Auditing & Consultancy Service



Ref. No.: 10007/08/2023-24

Date: 01/09/2023

# WORK ZONE NOISE 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: 18/08/2023

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	82.3
02	РСМ	85	79.5
03	Stock House	85	82.4
04	GCP	85	79.6
05	Stoves	85	76.9
06	Blower	85	78.9
07	PCI	85	82.1
Sinter Plant			
08	Proportionate Building	85	75.9
09	Waste Gas Fan	85	78.2
10	Sinter Machine	85	73.1
11	Screen House	85	75.8
12	Crushing House	85	76.8

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

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Ref. No.: 10008/08/2023-24

Date: 01/09/2023

#### 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: 17/08/2023

Sample Collected by : Royal Environment

Sr. No.	Area	Monitoring Location	Permissible Limit**	SPM Level (µg/Nm³)	
Monitor	ing is carried out duri	ing		11:30 to 12:00 AM	
01	BF - Plant	Cast House	3000	1967	
02	BF - Plant	Stock House	3000	2483	
03	Sinter Plant	Sinter Plant Area	3000	2231	

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

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

Royal Environment Auditing & Consultancy Service





Ref. No.: 10009/08/2023-24

Date: 01/09/2023

# 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: 18/08/2023

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
Monitori	ng is carried out during		04:00 to 05:00 PM	11:00 to 12:00 PM
01	Sinter-Crusher house	200	425	320
02	Sinter-Prop. Building	200	410	305
03	Sinter-Waste Gas Fan	300	425	305
04	Sinter Machine	300	460	355
05	Sinter-Circuler Cooler	300	430	300
06	Sinter-Fabrication Yard	300	450	365
07	Sinter-Screen House	200	440	357
08	BF - Plant, Casting Floor	300	460	325
09	BF - Plant, Stock House	200	465	320

Rajkot

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

Calibration done on: 04/03/2023





Ref. No.: 8011/08/2022-23

Date: 01/09/2023

# WATER SAMPLE ANALYSIS REPORT

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: 18/08/2023

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			28
04.	Turbidity	NTU	1	5	NIL
05.	pН	pH Unit	6.5 to 8.5	No Relaxation	7.21
06.	T.D.S.	Mg/L	500	2000	145
07.	Total Hardness	Mg/L	200	600	40
08.	Ca as Ca	Mg/L	75	200	7.5
09.	Mg as Mg	Mg/L	30	100	5.2
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	36.4
15.	Sulphate	Mg/L	200	400	9.2
16.	Nitrate	Mg/L	45	No Relaxation	3.1
17.	Fluoride	Mg/L	1.0	1.5	0.03
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	41.0
21.	E - Coli	Coli	waiting &		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 15/10500:2012 standard





: 20010/08/2023-24

Date: 01/09/2023

# Form No. 37 WORK PLACE MONITORING REPORT

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

ne of the Department/Plant :: BF-Plant & Sinter Plant of M/s. Welspun Mettalics Ltd., Anjar, Kutch.

w materials, by products and finished products involved in the process. TOTAL DUST

ticulars of sampling

Inpling. I'm to som august soco	2707										
Location Operation monitored	Identified	Sampling Instrument used	Airborı	Airborne Contamination	ination	TWA** concertration (As given in Second Schedule)	Refrance Method	Number of Workers exposed at the location	Remarks	Signature person taking	Name (in block letters)
	11112-11-1-1-1-1		Number of sample	Range	Average	Mg/m³		monitored			
ter-Crusher house	Total Dust		2	3.2-4.9	4.05	10		cs.	-		
ter-Prop. Building	Total Dust		2	2.6-1.4	3.20	10		ဗ	1		
ter-Waste Gas Fan	Total Dust		2	1.4-1.9	1.65	10		4	ı		
ter Machine	Total Dust	Personal	2	1.6-4.9	3.25	10		က	-		
ter-Circuler Cooler	Total Dust	Respirable Dust sampler	2	2.9-3.3	3.10	10	Gravimetric	ю		Fm	Mr. Prashant Chavda
ter-Fabrication Yard	Total Dust	VPDS 203	2	3.6-3.9	3.75	10		Ŋ	-	She	
ter-Screen House	Total Dust	T	2	4.7-4.0	4.35	10		'n	1	John Comments of the Comment of the	
- Plant, Casting Floor	Total Dust		2	2.3-3.9	3.10	10		ю	1	7	
- Plant, Stock House	Total Dust	1	2	2.9-3.1	ud/3:000	10		4	1		

1 Done On.: 16/01/2023



For. Royal Environment Auditing & Consultancy Service

Authorized Sign



Ref. No.: 51001/09/2023-24

Date: 03/10/2023

# 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	*****	****	21/09/2023
03	Time of Sampling	****		11:00
04	Air Pollution Control Measures	Title may may	MIC AND THE	**
05	Stack Height	Meter	M1000	60
06	Stack Temperature	°C		130
07	Ambient Temperature	°C	30 00 do	29
08	Average Velocity of Flue Gases	M/Sec.	10 MF 06	8.1
09	Isokinetic flow rate for P.M. Sampling	LPM		20
10	P.M.	mg/Nm <sup>3</sup>	30	20.2
11	SO2	mg/Nm <sup>3</sup>	200	21.6
12	NOx	mg/Nm <sup>3</sup>	150	25.6

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022



\* Permissible limits as per GPCB CC&A

1



Ref. No.: 40002/09/2023-24

Date: 03/10/2023

# 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	act country	00 di 10	Common Stack (Sinter & BF) Plant	Sinter (De-dusting system)
02	Date of Sampling			21/09/2023	21/09/2023
03	Time of Sampling			12.30	14:00
04	Air Pollution Control Measures			Common ESP	Bag Filter
05	Stack Height	Meter		70	50
06	Stack Temperature	°C		143	122
07	Ambient Temperature	°C		30	30
08	Average Velocity of Flue Gases	M/Sec.		8.3	8.6
09	Isokinetic flow rate for P.M. Sampling	LPM		22	22
10	P.M.	mg/Nm <sup>3</sup>	30	23.9	25.1

Instruments Used: Ecotech stack monitoring kit ESS - 100,

Calibration Done On.: 26/12/2022

\* Permissible limits as per GPCB CC&A



Amalysi



Ref. No.: 31003/09/2023-24

Date: 03/10/2023

#### 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. 1	Location No. 2	Location No. 3
01.	Location of Sampling	GOME		Nr. BF Area	Nr. Sinter Plant	Nr. Coke Oven Unit
02.	Date of sampling		-	21/09/2023	21/09/2023	21/09/2023
03.	Time of sampling	Hr.		9.15	9.45	10.15
04.	Dominant Wind Direction (From)			NE	NE	NE
05.	Wind Speed	Km./Hr.		2 to 15	2 to 15	2 to 15
06.	Average flow rate during sampling	m³/minute		1.15	1.20	1.20
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
08	PM 2.5	μg/m <sup>3</sup>	60	34.6	37.8	34.3
09	PM 10	µg/m³	100	53.6	54.3	52.8
10	Measured Concentration of SO <sub>2</sub>	µg/m³	80	15.7	17.6	16.9
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	18.4	21.6	15.7

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



Rajkot Rajkot





Ref. No.: 40004/09/2023-24

Date: 03/10/2023

# 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		50	22/09/2023	22/09/2023	22/09/2023
03.	Time of sampling	Hr.	a13	10.00	10.30	11.00
04.	Dominant Wind Direction (From)		) as	NE	NE	NE
05.	Wind Speed	Km./Hr.	GHEE	3 to 17	3 to 17	3 to 17
06.	Average flow rate during sampling	m³/minute	OVE.	1.10	1.15	1.20
07.	Average flow rate for Gas sampling	LPM	540	0.2	0.2	0.2
08	PM 2.5	μg/m³	60	25.8	26.3	28.4
09	PM 10	μg/m³	100	50.3	48.9	49.8
10	Measured Concentration of SO <sub>2</sub>	µg/m³	80	20.2	16.3	17.2
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	17.2	18.6	20.1

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







Ref. No.: 41005/09/2023-24

Date: 03/10/2023

# 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. 7	Location No. 8	Location No. 9
01.	Location of Sampling	Caree	-	Nr. Coal/ Coke Yard	Nr. Canteen (Bramhasthan)	Nr. Health Center
02.	Date of sampling		we	23/09/2023	23/09/2023	23/09/2023
03.	Time of sampling	Hr.	-	9.15	9.45	10.15
04.	Dominant Wind Direction (From)		-	sw	sw	sw
05.	Wind Speed	Km./Hr.		4 to 18	4 to 18	4 to 18
06.	Average flow rate during sampling	m <sup>3</sup> /minute	***	1.20	1.15	1.15
07.	Average flow rate for Gas sampling	LPM		0.2	0.2	0.2
08	PM 2.5	μg/m³	60	32.4	31.5	29.7
09	PM 10	μg/m³	100	54.5	52.3	51.6
10	Measured Concentration of SO <sub>2</sub>	μg/m³	80	16.8	17.8	18.4
11	Measured Concentration of NO <sub>2</sub>	μg/m³	80	15.4	14.5	16.9

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.



Analys



Ref. No.: 41006/09/2023-24

Date: 03/10/2023

## 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

Jale of S	ampling . 22/09/2023	7		T Sample Collect	ned by . Noyal Environme
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
Monito	ring is carried out during		01:30 - 02:30 PM		01:30 - 02:30 AM
01.	Nr. BF Area	75	69.3	70	55.7
02.	Nr. Sinter Plant	75	70.2	70	57.8
03.	Nr. Coke Oven Unit	75	68.7	70	56.9
04.	Nr. Oxygen Plant	75	66.9	70	57.3
05.	Nr. Admin Office	75	63.7	70	60.1

		CPCB Standards	
Area	Category of Area / Zone	Limit in o	dB(A) Leq.
Code	Category of Area / Zone	Day Time	Night Time
Α	Industrial Area	75.0	70.0
В	Commercial Area	65.0	55.0
С	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

