

SSIL/23-24/GM/019

Shyam Steel Industries Ltd

03-319, DH-6/11, Action Area 1D, Street No. 319, New Town, Kolkata 700156

Tel +91 33 4007 4007 / +91 33 6666 4646

Mail ssi@shyamsteel.com | www.shyamsteel.com

CIN: U27100WB2002PLC094339

Date: 12-04-2023

To,
Deputy Director General of Forests (C)
Ministry of Env., Forest and Climate Change,
Integrated Regional Office, Kolkata IB – 198,
Sector-III, Salt Lake City, Kolkata – 700106

Sub: Six-monthly Compliance to the Environment Clearance condition vide MoEF Letter No. F No. J-11011/97/2008-IA.II (I) dated 08.06.2009 of Shyam Steel Industries Limited Expansion of Steel Plant (60,000 TPA to 2,50,000 TPA TMT Bars) by installing Ladle Refining Furnace (LRF,1x30MT), Electric arc Furnace (EAF,1x30 MT) with Billet Caster along with Captive Power Plant (10MW) At Raturia Industrial Area, Angadpur, Durgapur, District-Paschim Bardhaman, West Bengal, Pin-713215. (For the period of October 2022 to March 2023)

Ref: Environment Clearance No. J-11011/97/2008-IA.II (I) dated 08.06.2009.

Dear Sir,

This has reference to the captioned subject and cited reference. It is to inform you that we are herewith submitting six monthly compliance report for the conditions stipulated in the Environmental Clearance of Expansion of Steel Plant (60,000 TPA to 2,50,000 TPA TMT Bars) by installing Ladle Refining Furnace (LRF,1x30MT), Electric arc Furnace (EAF,1 x 30 MT) with Billet Caster along with Captive Power Plant (10MW) for the period October 2022 to March 2023 along with monitoring data report for your kind consideration. The copy of above compliance report is also being sent in soft format through email to <a href="iro.kolkata-mefcc@gov.in">iro.kolkata-mefcc@gov.in</a> for your kind perusal.

Hope the above are in line with the statutory requirements.

Thanking you.

Yours faithfully,

For Shyam Steel Industries Ltd.

General Manager (Commercial)

Enclosure: As above

Copy to: The Environmental Engineer, West Bengal Pollution Control Board, Sahid Khudiram

Sarani, City Center, Durgapur, Paschim Bardhaman-713216, West Bengal.

### ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

October 2022 to March 2023

Shyam Steel Industries Ltd, Angadpur, Durgapur

Six Monthly Compliance Status report of Environmental Clearance from expansion of (60,000 TPA to 2,50,000 TPA TMT Bars) by installing Ladle Refining Furnace (LRF,1x30MT), Electric arc Furnace (EAF,1 x 30 MT) with Billet Caster along with Captive Power Plant (10MW).

ENVIRONMENTAL MANAGEMENT DEPARTMENT SHYAM STEEL INDUSTRIES LIMITED

Six Monthly Compliance of conditions stipulated in the Environmental Clearance of Shyam Steel Industries Limited. Expansion of Steel Plant (60,000 TPA to 2,50,000 TPA TMT Bars) by installing Ladle Refining Furnace (LRF,1x30MT), Electric arc Furnace (EAF,1 x 30 MT) with Billet Caster along with Captive Power Plant (10MW) At Raturia Industrial Area, Angadpur, Durgapur, District-Paschim Bardhaman, West Bengal, Pin-713215.

(For the period of October 2022 to March 2023)

Sr. No	Stipulated Conditions	Action taken / To be taken
	ecific Conditions	
1	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices shall be provided to keep the emission levels below 100 mg/Nm³. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit	Ambient air quality has been monitored at regular interval i.e. every two months by NABL accredited laboratory ITS Laboratory, Noida. Reports are analysed for PM10, PM2.5, SOx & NOx. Accordingly necessary preventive steps are taken to reduce respirable suspended particulate matter in ambient air. Ambient air quality monitoring report is enclosed as Annexure-III.  Monitoring frequency of various environmental parameters and other suggested improvements are implemented at working site as and when instructed.  ESPs have been installed to Sponge Iron kilns and boilers of CPP. Furnaces are equipped with bag filters. ESPs and Bag filters are designed to achieve Particulate Matter emission level below 50 mg/Nm3.  We have installed the Online Stack Monitoring system and data transmission system in stacks as per CPCE guidelines. We keep a vigilant observation of the readings. In case of RSPM value higher than 50 mg/Nm3, alarm is raised and plant is stopped to take necessary corrective action. Data on ambient air quality and stack emission report has been submitted up to 30.09.2022 to Regional Officer, Integrated Regiona Office, Kolkata.
ii	Electrostatic precipitator (ESP) shall be provided to WHRB and AFBC boilers. Fume extraction system with bag house shall be provided to electric arc furnace (EAF) and the exhaust gases shall be discharged through a stack of adequate height. Dust extraction system with bag filters shall be provided to ladle refining furnace (LRF). Fume extraction system with bag filters shall be provided to steel melting shop (SMS). Stack of adequate shall be provided to	Waste heat from DRI Kilns are channelized to Wast Heat Recovery Boiler (WHRB) to generate power from steam produced by the WHRB. To control the particulate emission from the stacks of DRI Kiln, boiler of CPP & SMS, pollution control devices such as ESP and bag filters have been installed. Stack emission monitoring report is enclosed as Annexure-IV.  There are 2 nos of ESP's for the 2 nos of WHRB boiler and 1 no of ESP for the AFBC boiler. Two Furn Extraction system with hoods have been installed for the Induction Furnace and Electric Arc Furnace (EAF Moreover 5 nos. of Dust extraction system with Bafilter is in place to control the dust level in DRI unit is strategic.

eneral Manager (Commercial)

rolling mill to control the gaseous emissions within the permissible limit. Hot gases from DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in waste heat recovery boiler (WHRB). The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack. All the gaseous emissions shall be within 100 mg/Nm3

Dust settling chamber & after burning chamber is provided respectively to arrest the coarse solids and CO to burn completely present in the hot flue gas coming from DRI kiln and is used in Waste heat recovery boiler (WHRB). The recovered heat is effectively being used for generation of power, thereby saving upon fossil fuel usage & reduction of Carbon Footprint.

iii

Data on ambient air quality stack emissions and fugitive emissions shall be uploaded on the Company's website and also regularly submitted on-line to the Ministry's Regional Office at Bhubaneswar, West Bengal Pollution Control Board (WBPCB) and Central Pollution Control Board (CPCB) as well as hard copy once in six months. Data on SPM, SO2 and NOx shall also be displayed prominently outside the premises at the appropriate place for the information of general public.

Environmental monitoring data of ambient air, stack and fugitive emissions are routinely uploaded on the company's website and soft copy of the same is submitted to Regional Officer, Integrated Regional Office, Kolkata.

Data on the emissions are submitted to West Bengal Pollution Control Board (WBPCB) by hard copy once in every six months.

The data of the emissions are displayed outside the Main gate for the information of general public.

SHYAM STEEL INDUSTRIES LTD

General Manager (Commercial)

iv	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored Guidelines/Code of Practice issued in this regard by the CPCB shall be followed. New Standards issued by the Ministry for the sponge iron plant in May, 2008 shall be followed.	Fugitive emissions are monitored at potential sources and the data reveals that PM10 ranges b/w 57.0 µg/m3 – 79.8 µg/m3 near product house and near raw material handling yard, which is well within the prescribed standard. Although Fugitive air emission sources are identified and maintained properly to control the fugitive emissions at source itself. We ensure that preventive maintenance of all the potential sources are done on time to prevent the unwanted emissions. Dust extraction system at different unloading bunkers for the product and raw materials handling system has been installed. Bag filters have been provided at stock house, product house, magnetic product separator, cooler discharge area and transfer points to minimize fugitive dust emission. Fugitive emission monitoring report is enclosed as Annexure-V.  Water sprinkling at 09 locations and Dry fog at 4 locations are being carried out to control fugitive dust emission. One number of water tanker is being utilized at the waste disposal area and on the road to control fugitive dust emission.
V	Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements should also be made to control dust emissions during loading and unloading of the raw material and finished product.	We ensure that all vehicles engaged to carry raw materials and finished products are having proper PUC certificate. This has also been ensured that all the transporting vehicles are properly covered with the tarpaulin to prevent any kind of spillage.  We have vehicle mounted dust extractor to remove the spillage and dust generated due to vehicular movement inside plant premises. Water sprinkling is done on the road, material unloading area & finished product loading area inside the plant to suppress the air borne dust.
vi	In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dust suppression & extraction system with bag filters shall be installed at various dust generating points including raw material handling area and material transfer points. Bag filters shall be provided in coal stacking, reclaiming, crushing, and feeding and ESP dust handling areas to control fugitive dust in power plant.	Machinery and equipment's engaged under operation are listed in preventive maintenance schedule and as per the schedule maintenance is done to minimize the fugitive emission from all the vulnerable sources. Dust extraction systems are properly functioning at different unloading bunkers and other strategic locations. Bag filters have been provided at stock house, product house, cooler discharge area and transfer points to minimize dust emission. Good housekeeping practices have been followed to restrict any spillages inside plant premises.
	As proposed, total water requirement shall not exceed 103 m <sup>3</sup> /hr (existing 45 m <sup>3</sup> /hr&	Water consumption is monitored through flow meters installed at inlet and all individual units which reveals that total consumption is as per the agreement signed with Durgapur Municipal Corporation dated 28th May,

vii	proposed 58 m³/hr) as per the agreement signed with Durgapur Municipal Corporation dated 28th May, 2004 for 140 m³/hr. No ground water shall be used. Acid and alkaline effluents from the demineralization (DM) plant shall be neutralized and used for dust suppression and green belt development. Process waste water shall be treated in Effluent Treatment Plant (ETP). Boiler blow down, effluent from billet caster and hot rolling mills shall be reused for dust suppression after treatment for oil & grease in settling tank. All the treated wastewater shall be recycled and reused in the process to the maximum extent possible and reused either in the process and/or for dust suppression, green belt development etc.	2004. Average water consumption for all the operational facilities are Approximately 66.9 m3/ Hr. No ground water is being utilized in any of the facility. Waste water generated from CPP, because of Boiler blow down is being used for ash quenching, cooling of Rolling Mill Rolls, Secondary cooling of Billet and DRI Cooler. There is no waste water discharge outside the plant premises. The waste water from CCM and Hot Rolling mills are reused in the process after treatment of oil, grease, ash, sludge and scales in settling tank. Waste water analysis report is enclosed as Annexure-VI.
viii	Zero effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises. Domestic effluent shall be appropriately treated in septic tank followed by soak pit and used for green belt development within the premises.	There is no waste water discharged outside the plant premises and all the necessary protective measures are taken to ensure that plant is maintained as Zero Effluent Discharge. Domestic effluent collected from Canteen, Toilets & Offices are appropriately treated in septic tank followed by soak pits and subsequently used for green belt development within plant premises.
ix	The water consumption should not exceed 16 m <sup>3</sup> /Ton of Steel as per prescribed standard.	Water consumption is below 2.49 m3/Ton of Steel (Finished Product) and is well within the prescribed standard i.e. 16 m3/Ton.  Water quality analysis report is enclosed as Annexure-VII.
X	Ground water monitoring around the solid waste disposal site/secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and WBPCB.	No ground water is being utilized for operation purpose. Although we have one no of borewell inside plant premises to mitigate emergency situation. Same is not been utilized till date.

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General Management of the second of the sec

Char has not been disposed off outside plant premises. All the char from DRI plant shall Char is generated as a by-product of DRI plant and is be utilized in AFBC boiler of being fed to AFBC boiler of the Captive Power Plant. In power plant and no char shall be addition to that we are procuring char from market disposed off anywhere else. because generated char is not enough to feed the Captive AFBC boiler shall be installed Power Plant. simultaneously along with the хi DRI plant to ensure Slag coming out of SMS undergoes the TCLP test and utilization of char from the if found suitable then we utilize the same for filling the beginning, SMS slag should also low lying area inside plant premises. Other solid wastes be properly utilized. All the such as broken refractory mass & crushed ladle are other solid waste including utilized in making spout of the furnace. In due course of broken refractory mass shall be time such material gets disintegrated & ultimately properly disposed off disposed along with the slag for land filling purpose. environment-friendly manner. Hazardous wastes such as used oil/lubes are collected Oily waste/lubricants shall be and stored safely in earmarked location and provided authorized to subsequently disposed off to SPCB authorized vendor. re-processors recyclers/ properly disposed off as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments No slag and fly ash shall be disposed off in abandoned Raniganj mining area without prior permission from the concerned authority and a We do not dispose off any of the slag and fly ash commitment in this regard shall generated to abandon Raniganj Mining Area where as be submitted to the Ministry's xii we are utilizing fly ash for making composite bricks at Regional Office Shyam Steel Industries Ltd, Bamunara and remaining Bhubaneswar, WBPCB and fly ash is being sent to cement plant of Ultratech All the slag from CPCB. Cements as per the agreement. induction furnace/EAF/LRF shall be used for land filling Apart from that slag coming out of furnaces of SMS are inside the plant or used as duly tested for Toxic Chemical Leachability Potential building material only after Test and if found suitable then utilized in filling the low passing through Toxic Chemical lying area inside plant premises. Leachability Potential (TCLP) Solid waste analysis report is enclosed as Annexure-Toxic slag shall be VIII. disposed in secured landfill as guidelines. **CPCB** ner hazardous Otherwise, substances shall be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines. Proper utilization of fly ash shall Fly ash is being utilized for making of composite bricks be ensured as per Fly Ash in Shyam Steel Industries Ltd, Bamunara 1999 Notification, and xiii remaining ash is supplied to Ultratech Cements under subsequent amendment in 2003. 'Memorandum of Understanding' dated 05.05.2014. All the fly ash shall be provided

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	utilization and 'Memorandum of Understanding' shall be submitted to the Ministry's Regional Office at Bhubaneswar.	
xiv	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal to the Ministry's Regional Office at Bhubaneswar.	Solid wastes are being documented, collected, stored and utilized in best possible manner on daily basis. Dolochar is being used in AFBC boiler as fuel, Fly ash is utilized in composite brick manufacturing, slag is crushed and after recovery of iron given to brick manufacturers. We have already submitted a report containing the Solid Waste management plan and actions at our end to the Ministry's Regional Office at Bhubaneswar.
xv	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB.	Wastes are segregated at source and accordingly stored in earmarked locations. Further non-toxic wastes such as cartons, woods and end cuts are sold to recyclers whereas hazardous wastes are tested for TCLP test and waste passing TCLP test are subsequently used for filling purpose of low lying area. Hazardous wastes are kept separately as per the guidelines and further disposed off in environmentally friendly manner to authorised vendor
xvi	As proposed, green belt shall be developed in 6.6 acres (33 %) out of total 20 acres within and around the plant premises to mitigate the effects of fugitive emissions as per the CPCB guidelines in consultation with DFO	Green belt development is a prime requirement and is been carried out every year inside as well as outside factory premises. Three tier plantation is being developed inside factory premises. Plantation activity is carried out in proper consultation with local forest range officer.  The plantation has been raised comprising trees species like Chatim, Ashok, Bakul, kadam, Karanj & Neem etc.  Tree plantation report is attached as Annexure- I
xvii	All the recommendations made in the Charter in Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented.	There are recommendations under CREP guidelines for solid & hazardous waste management, water conservation, Fugitive & stack emission monitoring and adoption of clean technologies. We have implemented recommendations at our Shyam Steel Industries Ltd. Status report of CREP recommendation is enclosed as Annexure-II.
xvii i	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe	The company is providing the necessary facilities to all contract labours engaged in activity inside plant premises such as washrooms, canteen, drinking water, medical care & creche.

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General Manager (Commercial)

R	drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	
ъ. С	leneral conditions	
i	The project authorities shall adhere to the stipulations made by the West Bengal Pollution Control Board (WBPCB) and the State Government.	We have obtained Consent to Operate (CTO) from WBPCB vide CTO No CO123387 dated 25.03.2022, valid till 31.03.2027. We have also obtained Hazardous waste authorization from WBPCB vide letter no 251/2S (HW)- 2881/2012. dated 23.12.2022 valid till 30.11.2027.
ii	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	We will abide by the condition and will obtain all the necessary pre requisites for any future modification / expansion of the unit from the MoEF&CC.
iii	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The West Bengal Pollution Control Board (WBPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	Online stack monitoring system has been installed in stacks to monitor the emission level. If it exceeds the threshold value it raises the alarm for necessary corrective action.
iv	Ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the WBPCB. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and shall be carried out regularly in consultation with WBPCB and data submitted to the CPCB and WBPCB regularly. The	Ambient air quality as well as ambient noise level is being monitored once in every two months by NABL accredited laboratory ITS Laboratory, Noida. Reports are analysed for PM10, PM2.5, SOx & NOx and necessary preventive steps are taken to reduce respirable suspended particulate matter in ambient air. We have also provided acoustic enclosures where ever it is possible to reduce exposure. Frequency of monitoring of various environmental parameters and other improvements are implemented as and when instructed.  ESPs have been installed to Sponge Iron kilns and boilers of CPP and furnaces are equipped with bag filters. Data on ambient air quality and stack emission report has been submitted upto 30.09.2022 to Regional Officer, Integrated Regional Office, Kolkata.

instruments used for ambient air quality monitoring shall be

calibrated time to time

V	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Noise level monitoring is scheduled once in every two months in all the potential noise generation area. Accordingly we have provided noise control measures like acoustic hoods, silencers, sound proof enclosures on all sources of noise generations to keep the overall noise level in and around the plant area well within the prescribed standards. As a protective measure we provide ear plug to all our employees to relieve them of any discomfort due to noise. There is no area inside the plant with noise level above 85dB. Noise level monitoring report is enclosed as Annexure-IX.
vi	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Pre-placement and periodical medical examination of the workers & contract labours engaged in the plant are being done and records maintained. We have well equipped first aid station with 24x7 ambulance facility to attend any emergency to our employees and contract labours. Total employee on company role is 826 & on contract is 815.
		Personal protective equipment's are being provided to all workers respective to the nature of the job. Initial and periodical awareness training is being imparted to all workers in the Company's Vocational Training Centre located within the plant premises on Safety and Health Aspects.
vii	All the environment management measures given in the EIA/EMP shall be implemented and complied with.	Environment management measures of EIA/EMP reports are duly complied and reviewed for its current status. In addition to that observations of inspecting authority relating to environment management is also taken care for the betterment of residing community & nature.
viii	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	We have constructed surface water harvesting structure where in we have considered the maximum rainfall in last 20 Years to construct the suitable capacity of holding tank.
ix	Proper housekeeping shall be ensured	Mechanical sweeping machines are being used continuously for maintaining proper housekeeping inside plant premises. We are gradually adopting business excellence models to make our work environment for clean and safe working.

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X	The company shall undertake eco-development measures including community welfare measures in the project area.	The company has implemented community welfare measures at ground level to benefit nearby communities. Company has contributed in healthcare sector by providing monetary and logistic support as mobile healthcare vehicle with well qualified medical staff & medicines, infrastructural development of hospitals by providing Air-conditioners and furniture items and actively participated in supply of food grains to the deprived community amidst covid pandemic. To counter the covid pandemic company has made modern crematorium for proper last right to the deceased.  Massive plantation drive by providing saplings to nearby schools and carried out avenue plantation outside factory premises for ecological restoration of surrounding.  Apart from that all the necessary facilities which were previously provided or constructed are maintained properly so that community can utilize the same efficiently.  Shyam Steel exclusively focuses on sanitation, drinking water facility, livelihood schemes, repair of village roads, building sports grounds, free distribution of books, helping in various religious activities & environmental sustainability.
xi	A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	Environment management cell has been made and environmental manager has been appointed to manage the routine environmental activities under the guidance of factory manager.  He has to ensure the environmental monitoring of various parameters, Analysis of monitoring reports, necessary corrective action at site and further submission of compliance report to various regulatory authorities.
xii	As proposed, Rs 223.00 Lakhs and Rs. 44.5 Lakhs shall be earmarked towards the capital cost recurring cost/annum for environment pollution control measures and used judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	Funds allocated for implementation of various environment pollution control measures and its maintenance are being utilized to fulfil the conditions stipulated by the Ministry as well as the State Pollution Control Board.
xiii	The Regional Office of this Ministry at Bhubaneswar /CPCB/WBPCB shall monitor the stipulated conditions. A sixmonthly compliance report and	A soft copy of six monthly compliance report along with monitoring data is submitted on a regular basis to The Regional Officer, Integrated Regional Office, Kolkata. Apart from that hard copy of the same is also submitted to WBPCB.

	To the second se	
	the monitored data along with	
	statistical interpretation shall be	
	submitted to them regularly.	
	Project authorities shall inform	
	the Regional Office as well as	
xiv	the Ministry, the date of	
	financial closure and final	Will be complied.
	approval of the project by the	· ·
	concerned authorities and the	
	date of commencing the land	
	development work.	
	The Project Proponent shall	
	inform the public that the project	
	has been accorded	
	environmental clearance by the	The clearance letter informing that the project has been
XV	Ministry and copies of the	accorded Environment Clearance is advertised in two
AV	clearance letter are available	local newspapers namely "The Echo of India" (English
	with the W.B. Pollution Control	Daily) dated. 17-06-2009 and "Arthik Lipi" (Bengali
	Board and may also be seen at	Daily) dated 17.06.2009.
	Website of the Ministry of	Daily) dated 17.00.2009.
	Environment and Forests at	
	http://envfor.nic.in. This shall be	
	advertised within seven days	
	from the date of issue of the	
	clearance letter, at least in two	
	local newspapers that are widely	
	circulated in the region of which	
	one shall be in the vernacular	
	language of the locality	
	concerned and a copy of the	
	same should be forwarded to the	
	Regional office at Bhubaneswar.	

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### Details of tree plantation report for the period October'22 - March'23

	MINIST	RY OF ENVIRONMENT AND FORESTS				
	IN	TEGRATED REGIONAL OFFICE				
	KOLKATA	A IB – 198, SECTOR-III, SALT LAKE CITY, KOLKATA – 700106				
]	FORMAT FOR PROVII	DING PARTICULARS ON GREEN BELT/ PLANTATION				
	UNDEI	R F ( C ) ACT 1980 AND E ( P) ACT 1986				
	a) Name of Project:	SHYAM STEEL INDUSTRIES LIMITED				
1	b) Envt./ Forest Clearance Nos.:	F No. J-11011/97/2008- IA II (I) Date-08.06.2009				
2	Location, Block/ Sub. Divn./ Dist./ State:	Angadpur, Durgapur, Paschim Bardhaman, West Bengal				
3	Address of communication:	Plot No. DH6/11, Premises No. 03-319, Action Area - ID, New Town, District. North 24 Parganas, Kolkata – 700 156				
	Existing vegetation in t	he area/ region:				
4	a) Species (trees/ shrubs/ grasses/ climbers):	Trees				
	b) Major prevalent species of each type	Bakul, Chatim, Ashok, Karanj, Kadam, Neem				
	Land coverage by the project:					
5	a) Total area under the project:	20 Acres Approx.				
5	b) Area covered for basic infrastructure (roads/ building/ factory etc.):	67%				
	Details about natural vegetation:					
	a) Name and number of plant of tree/ species felled:	Nil				
6	b) Name and number of plant species still available in the area:	Not Available				
	c) By protecting the area will indigenous stock come up:	Yes				
	d) Extent of greenbelt enveloped	33%				
	Plantations required to	be carried out as per:				

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7	b) Cond Fores clearance c) Volunt n	ditions of onmental in ha. / Nos.: ditions for st Act © in ha./ Nos.: earily in ha./ nos. plantation ea available for ii)Dumps	33%  or plantation in each category:  iii) iv)Road  V) Block plantation  Back side				
			filled area				
	Nil	Nil	Nil	2 RKM		1000 Sqm	
	b) Plantati	on details (cat	egory wise	e & method	lology used)		
	Year of Plantatio n	Species Planted	Spacin g	Height Attaine d	Total Area Covered	Area Still	Available
8		50 Saplings - Planted inside plant premises.	5- 6 Ft.	3 – 6 Ft.	0.1 Ha		Filling
	2022			Gap I	Filling		
		500 Saplings - Distribute d to different social institutions and employees			, <del>-</del>		
			(	c) Survival	of Plantation		
	Year of Plantatio n	2017	2018	2019	2020	2021	2022
	Total plantatio ns (No.)	200	350	630	1850	950	1100
	Survival (No.)	146	350	630	1480	760	880
	Survival %	73	100	100	80	80	80

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9	plantat	arrying out tion and enance			: Se	elf	
		Financial details year wise /plantation wise / item wise					
10	Sl. No.	Year	Fund a	llocated	Expenditur e made	Average cost of each surviving plant in Rs.	
	1	2019			420000		
	2	2020			560000		
	3	2021			480000		
	4	2022			500000		
11	experts an	d their comm ments and fo	of plantation by field their comments and nents and follow up		: Site visit at regular interval is done after plantation for better survival of saplings.		
12	Remarks/	actions Remarks/ any other information		: Water		requently done to ensure proper th of saplings.	

SHYAM STEEL INDUSTRIES LTD.

General Manager (Commercial)

### Compliance status of CREP recommendations for the period October'22 - March'23

Sl. No.	CREP RECOMMENDATIONS	COMPLIANCE STATUS
CEM	IENT INDUSTRY	NA
1	Cement plants, which are not complying with notified standard, shall do the following to meet the standards; Augmentation of existing Air Pollution Control Devices- By July 2003 Replacement of existing Air Pollution Control Devices- By July 2004	
2	Cement plants located in critically polluted or urban areas (including 5 km distance outside urban boundary) will meet 100mg/Nm3 limit or particulate matter by December 2004 and continue working to reduce the emission of particulate matter to 50mg/Nm3.	
3	The new cement kilns to be accorded NOC/ Environmental Clearance w.e.f 01.04.2003 will meet the limit of 50 mg/Nm3 for particulate matter emissions.	
4	CPCB will evolve load based standards by December 2003	
5	CPCB and NCBM will evolve SO2 and NOx emission standards by June 2004	
6	The Cement industries will control fugitive emissions from all the raw material and products storage and transfer points by December 2003. However, the feasibility for the control of fugitive emissions form limestone and coal storage areas will be decided by the National Task Force (NFT). The BTF shall submit its recommendations within three months.	
7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum cokes as fuel in cement kiln by July 2003.	
8	After performance evaluation of various types of continuous monitoring equivalent and feedback form the industries and equipment manufacturers, NTF will decide feasible unit operations/ sections for installation of continuous monitoring equipment. The industry will install the continuous monitoring systems (CMS) by December 2003	
9	Tripping in Kiln ESP to be minimized by July 2003 as per the recommendations of NTF.	
10	Industries will submit the target date to enhance the utilization of waste material	
11	by April, 2003.  NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	
12	Cement industries will carry out feasibility study and submit target dates to CPCB for co-generation of power by July 2003.	
*	Non complying units shall be given bank guarantee to respective SPCBs.	
INTE	EGRATED IRON & STEEL INDUSTRY	
1	COKE OVEN PLANTS- To meet the parameters PLD(% leaking coolers), PLL (% leaking lids), PLO (% leaking off take), of the notified standards under EPA within three years by December 2005). Industry will submit time bound action plan and PER Chart along with the Bank Guarantee for the implementation or the time.  To rebuild at least 40% of the coke oven batteries in next 10 years (by December 2012).	NA
2	STEEL MELTING SHOP- Fugitive emissions- To reduce 30% by March 2004 and 100% by March 2008(including installation of secondary dedusting facilities).	Fugitive emission is under control with PCD
3	BLAST FURNACE- Direct inject of reducing agents by June 2013.	NA

General Manager (Commercial)

4	SOLID WASTE/ HAZARDOUS WASTE MANAGEMENT- Utilisation of Steel Melting Shop (SMS)/ Blast Furnace (BF) slag as per the following schedule:  * By 2004 - 70%  * By 2006 - 80%  * By 2007 - 100%  Hazardous Waste- Charge of tar sludge/ ETP sludge to Coke Oven by June 2003. Inventorization of the Hazardous waste as per Hazardous Waste (M&H), Rules, 1989 as amended in 2000 and implementation of the Rules by Dec, 2003. (Tar sludge, acid sludge, waste lubricating oil and type fuel falls in the category of Hazardous waste).	Hazardous wastes are stored, transported and disposed off as per the Hazardous Waste Authorization granted.
5	WATER CONSERVATION/ WATER POLLUTION- To reduce specific water consumption to 5 m3/t for long products and 8 m3/t for flat products by December 2005.	We are maintaining water consumption within the limit.
6	Installation of Continuous stack monitoring system & its calibration in major stacks and setting up of the online ambient air quality monitoring stations by June 2005.	Online stack monitoring system is installed.
7	To operate the existing pollution control equipment efficiently and to keep proper record of run hours, failure time and efficiency with immediate effect. Compliance report in this regard be submitted to CPCB/ SPCB every three months.	Complied
8	To implement the recommendations of Life Cycle Assessment (LCA) study sponsored by MoEF by December 2003.	To be complied.
9	The industry will initiate the steps to adopt the following clean technologies measures to improve the performance of industry towards production, energy land environment.  - Energy recovery of top Blast Furnace (BF) gas.  - Use of Tar- free runner linings.  - De- dusting of Cast house at tap holes, runners, skimmers ladle and charging points.  - Suppression of fugitive emissions using nitrogen gas or other inert gas.  - To study the possibilities of slag and fly ash transportation back to the abandoned mines, to fill up the cavities through empty railway wagons while they return back to the mines and its implementation.  - Procession of the waste containing flux & ferrous wastes through waste recycling plant.  - To implement rain water harvesting  - Reduction Green House Gases by:  Reduction in power consumption  Use of by- products gases for power generation  Promotion of Energy Optimisation Technology including energy/ audit  - To set targets for resource conservation such as Raw material, energy and water consumption to match International Standards.  - Up- gradation in the monitoring and analysis facilities for air and water pollution. Also to impart elaborate training to the manpower so that realistic data is obtained in the environmental monitoring laboratories.	NA
10	- To improve overall housekeeping.  SPONGE IRON PLANTS Inventorisation of sponge iron plants to be completed by SPCBs/ CPCE by June 2003 and units will be asked to install proper air pollution control equipment by December 2003 to control primary and secondary emissions.  As per rebuilding schedule submitted to CPCB/ MoEF.	All required PCD are installed as per the guidelines of SPCB.

SHYAM STEEL INDUSTRIES LTD.

General Manager (Commercial)



Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U. An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslub.in, Email: itsluboratorypvtltd@gmail.com, lnfo@itslub.in, contact@itsinb.in, itirciah@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

**Ambient Air Quality Analysis** 

Report Code: AAQ-070223-01

Issue Date: 11/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

Date of Sampling

Sample Description

Sampling Location

Sampling Plan & Procedure

Analysis Duration

Sampling Instrument Used

ITS Representative

05/02/2023 To 06/02/2023

Ambient Air

Near Main Gate

ITS/LAB/SOP-AAQ/08

07/02/2023 To 11/02/2023

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM2.5) With Gaseous Attachment Clear

Weather Condition

	TEST RESULT							
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	59.2	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	36.9	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	16.5	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	29.7	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	43.8	$\mu g /m^3$	400			
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.49	mg/m <sup>3</sup>	4,0			
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0			
8.	Ozone (as O <sub>3</sub> )	1S:5182 Part-IX	18.4	μg/m³	. 180			
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5,0			
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0			
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20			
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0			





SIGNATORY

es tested in our laboratory. 2. Samples will destroyed as per quality policy f be communicated in writing within 7 days .



## ITS TESTING LABORATORY

Laboratory; A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.in, Email: itslaboratorypytitd@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



### TEST REPORT

### Ambient Air Quality Analysis

Report Code: AAQ-071222-01

Issue Date: 11/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

Date of Sampling

Sample Description

Sampling Location

Sampling Plan & Procedure

Analysis Duration

Sampling Instrument Used

Weather Condition

ITS Representative

05/12/2022 To 06/12/2022

Ambient Air

Clear

Near Main Gate

ITS/LAB/SOP-AAO/08

07/12/2022 To 12/12/2022

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

	TEST RESULT								
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.				
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	71.6	$\mu g / m^3$	100				
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	33.4	μg/m³	60				
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	15.8	μg/m³	80				
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	26.2	$\mu g / m^3$	80				
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	40.5	μg/m³	400				
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.45	mg/m <sup>3</sup>	4.0				
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	$\mu g/m^3$	1.0				
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	16.0	μg/m³	180				
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	$\mu g/m^3$	5.0				
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0				
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20				
12.	Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0				

**AUTHORIZED SIGNATORY** 

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed as per quality policy. 3. Any complaints about this report should be communicated in writing within 7 days . 4. Total liability of our laboratory is limited to invoiced amount.



### ITS LABORATORY

Labor (tery: A. 91, Sector 80, Phase 2, Ploida, Gentam Budh Nagar (201301, (U.F.)
M.: 09911659800,9305790312,09958849764,07210888634
Website: www.itelab.in: Email: contact@itelab.in: info@itelab.in; iffrefab@gn.cil.com
An ISO 9001, 2016, ISO 14001;2015, ISO 45001;2018 Certified Laboratory)



TC 6179

Report Code AAQ-061022-01 (Page-1 of 2)

### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-061022-01

Issue Date: 11/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

04/10/2022 To 05/10/2022

Sample Description

Ambient Air

Sampling Location

Near Main Gate

Sampling Plan &Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

06/10/2022 To 11/10/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM25) With Gaseous Attachment

Weather Condition

Clear

***************************************	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	66.1	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	27.9	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	13.1	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	22.8	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	37.2	μg/m³	400			

CHECKED LY

AUTHORIZED STONATORY



Laboratory:A-91, Sector-80, Phase-2, Nolda, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAO AGIDAA AA CO

6.	Carbon monoxide (as CO)	TO.C100 D + 37		LAQ-001022-(	va (a ago-a oi
· · ·	Curon monoxide (as CO)	IS:5182 Part-X	0.41	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	14.2	μg /m³	180
9.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	$\mu g/m^3$	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0

ATORY



### ITS TESTING LABORATORY

An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypythtd@gmail.com, info@itslab.in, contact@itslab.in, itlrelab@gmail.com

+91 9911659800,09958849764,9305780312,07210888634



### TEST REPORT

**Ambient Air Quality Analysis** 

Report Code: AAQ-090223-02

Issue Date: 13/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

07/02/2023 To 08/02/2023

Sample Description

Ambient Air

Sampling Location

Sampling Plan & Procedure

CPP Area

Analysis Duration

ITS/LAB/SOP-AAQ/08 09/02/2023 To 13/02/2023

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT							
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	57.3	μg /m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	34.2	μg /m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	15.0	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	27.1	$\mu g / m^3$	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	36.5	μg/m³	400			
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.45	mg/m <sup>3</sup>	4.0			
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	$\mu g / m^3$	1.0			
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	15.7	μg /m³	180			
9.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0			
10.	Benzo (a) Pyrine	IS:5182 Part-XI	< 0.1	ng/m³	1.0			
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m <sup>3</sup>	20			
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0			

ZED SIGNATORY

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed as per quality policy. 3. Any complaints about this report should be communicated in writing within 7 days.



## ITS TESTING LABORATOR

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Luboratory) Website: www.itslab.in, Email: itslaboratorypytitd@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



### TEST REPORT

**Ambient Air Quality Analysis** 

Report Code: AAQ-091222-02

Issue Date: 13/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### **SAMPLING & ANALYSIS DATA**

ample Drawn By

ITS Representative

Date of Sampling

07/12/2022 To 08/12/2022

Sample Description

Ambient Air

Sampling Location

**CPP** Area

Sampling Plan &Procedure Analysis Duration

ITS/LAB/SOP-AAQ/08 09/12/2022 To 13/12/2022

Sampling Instrument Used

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT							
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	67.9	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	31.5	μg/m <sup>3</sup>	60			
3	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.4	μg/m³	80			
<u>} 4.</u>	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	23.6	$\mu g / m^3$	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	31.8	μg/m³	400			
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.41	mg/m³	4.0			
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0			
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	14.1	μg/m³	180			
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg /m³	5.0			
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0			
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m <sup>3</sup>	20			
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0			

AUTHORIZED-SIGNATORY

valid only for the samples tested in our laboratory. 2. Samples will destroyed as per quality policy. about this report should be communicated in writing within 7 days . our laboratory is limited to involced amount.



### ITS LABORATORY

Labor; tore 4-91, Sector-80, Phase-2, Noida, Gautam Burfa alagar - 20130 !. (\*† !\*) M., 35011659300 9305789312,093588-3763,472408385; ; Januita, varre in an La Email, contact/Ditalah in, in/980851ah in, ifrelahen an et cor

Websita, www.ipsiab.Lu, Email, contact@itstab.in, info@itstab.in, litrulabed purel coes An 150 9064: 2015, ISO 44001-2015, ISO 45004:2016 Contilled Laboratory:



Report Code AAQ-091022-05 (Page-1 of 2)

### TEST REPORT

**Ambient Air Quality Analysis** 

Report Code: AAQ-091022-05

Issue Date: 13/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

ITS Representative

Date of Sampling

07/10/2022 To 08/10/2022

Sample Description

Ambient Air

Sampling Location

CPP Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

09/10/2022 To 13/10/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	64.1	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	29.8	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	13.2	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	20.9	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	29.5	μg/m'	400			

CHECKED BY

AUTHORIZED SIGNATORY

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.
4. Total liability of our laboratory is limited to invoiced amount.



# ITS LABORATORY

Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)

M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com

An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-091022-05 (Page-2 of 2)

·		4502	CAL COME LA	13 6ON 10 W.W.	And truste-Torr
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.38	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	13.8	μg/m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0
***************************************	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	C	i		

CHECKED BY

AUTHORIZEDS IGNATORY



### ITS TESTING LABORATORY

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypvtltd@gmail.com, info@ltslab.in, contact@itslab.in, itlrclab@gmail.com



+91 9911659800,09958849764,9305780312,07210888634

#### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-120223-03

Issue Date: 14/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

08/02/2023 To 09/02/2023

Sample Description

Ambient Air

Sampling Location

DRI Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

**Analysis Duration** 

Weather Condition

11/02/2023 To 15/02/2023 Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

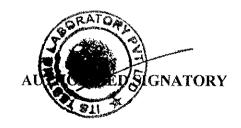
Sampling Instrument Used

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Clear

	TEST RESULT							
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	50.3	μg/m³	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	30.3	μg/m <sup>3</sup>	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.7	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	31.4	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	39.8	μg/m³	400			
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.52	mg/m³	4.0			
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0			
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	14.5	$\mu g/m^3$	180			
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0			
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0			
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20			
12.	Arsenic (as As)	APHA-AIR302	<10	no /m³	60			





Test reports are valid only for the samples tested in our laboratory.
 Samples will destroyed as per quality policy.
 Any complaints about this report should be communicated in writing within 7 days.
 Total liability of our laboratory is limited to invoiced amount.



# ITS TESTING LABORATORY

Laboratory: A-114, Sector-80, Phase-11, Noida, Gautam Budh Nagar - 201305, (U.P.)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.in, Email: itslaboratorypytitd@gmail.com, info@itslab.in. contact@itslab.in, itlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-121222-03

Issue Date: 14/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

ITS Representative

Date of Sampling

08/12/2022 To 09/12/2022

Sample Description

Ambient Air

Sampling Location

DRI Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAO/08

Analysis Duration

12/12/2022 To 15/12/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition Clear

·	TEST RESULT								
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.				
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	66.4	μg/m <sup>3</sup>	100				
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	25.7	μg/m³	60				
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	13.5	μg/m³	80				
<u>) 4.</u>	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	27.9	$\mu g/m^3$	80				
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	36.2	μg/m³	400				
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.48	mg/m <sup>3</sup>	4.0				
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	$\mu g/m^3$	1.0				
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	13.9	μg/m³	180				
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0				
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0				
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20				
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0				

Test reports are valid only for the samples tested in our laboratory. 2. Samples will d. Any complaints about this report should be communicated in writing within 7 days. Total liability of our laboratory is limited to invoiced amount. ples will destroyed as per quality policy.



## ITS LABORATORY

Lahor or or A 41 Sector 80, Phase-2, Noida, Gantam Budh Nagar - 20130 I, (U.P) M. 19941.59800.3305780312.09938849764.07210888834 Wasita - xe erislab.in, Email: confact@itslab.in, info@itslab.in, lthetab@ymail.com

कsite । সংখ্যারবিচান, ইলকা: contact@islab.in, info;yitslab.in, ttican@ymaic.co An ISO 9001: 2015, E-O 14001:2015, ISO 45001,2018 Carlified Laboratory}



Report Code AAQ-111022-06 (Page-1 of 2)

### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-111022-06

Issue Date: 14/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

: ITS Representative

Date of Sampling

08/10/2022 To 09/10/2022

Sample Description

Ambient Air

Sampling Location

DRI Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

11/10/2022 To 14/10/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	62.7	$\mu g/m^3$	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	19.4	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	11.8	μg/m³	80			
4.	Nitrogen dioxide (as NO2)	IS:5182 Part-VI	22.3	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	32.6	μg/m³	400			

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AUTHORIZED STONATORY



# ITS LABORATORY

Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itirclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-111022-06 (Page-2 of 2)

6	Cartage 11 / CC			**************************************	A (* 38 % * 0)
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.45	mg/m <sup>3</sup>	4,0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	13.5	μg /m³	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	. 20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0

CHECKED BY

AUTHORIZED SIGNATORY



### ITS TESTING LABORATORY (P

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytltd@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



### TEST REPORT

### Ambient Air Quality Analysis

Report Code: AAQ-090223-04

Issue Date: 11/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

ITS Representative

Date of Sampling

06/02/2023 To 07/02/2023

Sample Description

Ambient Air

Sampling Location

RM Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08 09/02/2023 To 13/02/2023

Analysis Duration Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Weather Condition

Clear

***************************************	TEST RESULT						
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.		
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	52.6	μg/m³	100		
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	27.5	μg/m³	60		
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.6	μg/m³	80		
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	26.2	$\mu g/m^3$	80		
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	40.8	$\mu g/m^3$	400		
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.50	mg/m <sup>3</sup>	4.0		
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0		
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	15.5	μg/m³	180		
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0		
10.	Benzo (a) Pyrine	IS:5182 Part-XI	< 0.1	ng/m³	1.0		
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20		
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0		

AUTHORIZED SIGNATORY

tested in our laboratory. 2. Samples will destroyed as per quality policy.



## ITS TESTING LABORATORY

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytltd@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-091222-04

Issue Date: 12/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

06/12/2022 To 07/12/2022

Sample Description

Ambient Air

Sampling Location

RM Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

09/12/2022 To 13/12/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Clear

Weather	Condition
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	TEST RESULT						
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.		
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	64.5	$\mu g / m^3$	100		
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	23.8	μg/m³	60		
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.0	μg/m³	80 -		
) 4.	Nitrogen dioxide (as NO2)	IS:5182 Part-VI	24.6	$\mu g/m^3$	80		
5,	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	37.5	$\mu g/m^3$	400		
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.44	mg/m <sup>3</sup>	4.0		
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	$\mu g/m^3$	1.0		
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	14.8	$\mu g/m^3$	180		
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	$\mu g / m^3$	5.0		
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0		
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20		
12.	Arsenic ( as As)	APHA-AIR302	<1.0	ng/m³	6.0		

**AUTHORIZ** ED SIGNATORY

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed as per quality policy.
3. Any complaints about this report should be communicated in writing within 7 days.
4. Total liability of our laboratory is limited to invoiced amount.



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Report Code AAQ-081022-04 (Page-1 of 2)

### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ-081022-04

Issue Date: 12/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

06/10/2022 To 07/10/2022

Sample Description

Ambient Air

Sampling Location

RM Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

08/10/2022 To 12/10/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM25) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT							
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.			
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	60.2	μg/m³	100			
2	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	21.6	μg/m³	60			
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	11.5	μg/m³	80			
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	18.2	μg/m³	80			
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	33.1	μg /m'	400			

GNATORY



# ITS LABORATORY

Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itsiab.in, Email: contact@ltsiab.in, info@ltsiab.in, itirclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-081022-04 (Page-2 of 2)

6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.40	mg/m³	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	14.0	μg /m <sup>3</sup>	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0

CHECKED BY

AUTHORIZED TONATORY



### ITS TESTING LABORATORY

An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypvtltd@gmail.com, info@itslab.iu, contact@itslab.in, itlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



### TEST REPORT

Ambient Air Quality Analysis

Issue Date: 15/02/2023 Report Code: AAQ-120223-05

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

ITS Representative Sample Drawn By

09/02/2023 To 10/02/2023 Date of Sampling

Ambient Air Sample Description SMS Area Sampling Location

Sampling Plan & Procedure ITS/LAB/SOP-AAQ/08 11/02/2023 To 15/02/2023 **Analysis Duration** 

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampling Instrument Used

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition Clear

TEST RESULT						
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.	
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	50.9	μg/m³	100	
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	31.8	μg/m³	60	
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.1	μg/m³	80	
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	28.7	$\mu g/m^3$	80	
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	42.9	$\mu g/m^3$	400	
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.41	mg/m <sup>3</sup>	4.0	
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0	
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	16.0	$\mu g/m^3$	180	
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	$\mu g / m^3$	5.0	
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0	
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20	
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0	

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed as per quality policy. 3. Any complaints about this report should be communicated in writing within 7 days .



### ITS TESTING LABORATOI

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytltd@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com



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### TEST REPORT

### Ambient Air Quality Analysis

Report Code: AAQ-121222-05

Issue Date: 15/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

Date of Sampling

Sample Description

Sampling Location

Sampling Plan & Procedure

Analysis Duration

Sampling Instrument Used

Weather Condition

ITS Representative

09/12/2022 To 10/12/2022

Ambient Air

SMS Area

ITS/LAB/SOP-AAQ/08

12/12/2022 To 15/12/2022

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Clear

TEST RESULT							
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.		
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	62.8	μg/m³	100		
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	29.5	μg/m³	60		
3,	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	13.8	μg/m³	80		
<i>.</i> 4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	25.1	μg/m <sup>3</sup>	80		
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	40.6	μg/m <sup>3</sup>	400		
6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.37	mg/m³	4.0		
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0		
8.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	14.0	μg/m³	180		
9,	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	$\mu g/m^3$	5,0		
10.	Benzo (a) Pyrine	IS:5182 Part-XI	< 0.1	ng/m³	1.0		
.11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20		
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0		

SIGNATORY

Tost reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed as per quality policy. Any complaints about this report should be communicated in writing within 7 days. Total liability of our laboratory is limited to involced amount.



Laboratory A. 31, Gactor 30, Phase N., Noida, Gautain Burth Nagar - 201301. (1) Pt 30 00011550300,9305730312.09058830764,0 210507637

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Report Code AAQ-121022-07 (Page-1 of 2)

### TEST REPORT

Ambient Air Quality Analysis

Report Code: AAO-121022-07

Issue Date: 15/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

09/10/2022 To 10/10/2022

Sample Description

Ambient Air

Sampling Location

SMS Area

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

12/10/2022 To 15/10/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2,5</sub>) With Gaseous Attachment

Weather Condition

:	Clear	
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TEST RESULT						
S.No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.	
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	57.4	μg/m³	100	
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	25.1	μg/m³	60	
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	15.0	μg/m³	80	
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	19.5	μg/m³	80	
5.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	35.4	μg/m <sup>3</sup>	400	

Terms & Conditions:

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report. Total liability of our laboratory is limited to invoiced amount.



Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itfrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code AAQ-121022-07 (Page-2 of 2)

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6.	Carbon monoxide (as CO)	IS:5182 Part-X	0.32	mg/m <sup>3</sup>	4.0
7.	Lead(as Pb)	IS:5182 Part-XXII	<1.0	μg/m³	1.0
8.	Ozone ( as O <sub>3</sub> )	IS:5182 Part-IX	13.6	$\mu g / m^3$	180
9.	Benzene ( as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	<1.0	μg/m³	5.0
10.	Benzo (a) Pyrine	IS:5182 Part-XI	<0.1	ng/m³	1.0
11.	Nickel (as Ni)	APHA-AIR420	<1.0	ng/m³	20
12.	Arsenic (as As)	APHA-AIR302	<1.0	ng/m³	6.0
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CHECKED BY

AUTHORIZED HENATORY

### Stack Emission Quality report for the month of October'22 - March'23



# Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.I. An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.ln, Email: itslaboratorypytitd@gmail.com, info@itslab.in, contact@itslab.in, ittrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Stack Emission Analysis

Report Code: SE-080223-03

Issue Date: 11/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn on

06/02/2023

Sample Drawn By

ITS Representative

Sample Description

Stack Émission 60 Minutes

Sampling Time

Sampling Plan &Procedure

SOP/SE/09

Analysis Duration

08/02/2023 To 11/02/2023

Ambient Temperature (°C)

28.0

Stack Temperature (°C) Source of Emission

112.0 Stack Attached to Induction Furnace

Type of Fuel used

Electricity

Operating Load

Normal

Type of Stack

Metal Circular

Stack Height from Ground Level (meter)

24.0

Average Velocity of Flue Emission (m/s)

9.8

Quantity of Emission Discharged (m³/hr)

38437.29

***************************************	TEST RESULT									
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)					
1.	Particulate Matter (PM)	IS:11255(Part-1)	13.4	mg/Nm <sup>3</sup>						
2.	Sulphur Dioxide (SO2)	IS:11255(Part-2)	7.4	mg/Nm <sup>3</sup>	*					
3.	Nitrogen Dioxide (NO2)	IS:11255(Part-7)	12.8	mg/Nm <sup>3</sup>	Not Specified					
4	Carbon Monoxide (CO)	IS:13270	0.08	% by Vol.	1% By Volume					
5	Carbon Dioxide (CO2)	IS:13270	1.52	% by Vol.	Not Specified					

AUTHORIZED SIGNATORY

oratory, 2, Samples will destroyed as per quality policy. In writing within 7 days



### ITS TESTING LABORATORY

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytht@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Stack Emission Analysis

Report Code: SE-081222-03

Issue Date: 12/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn on

06/12/2022

Sample Drawn By

ITS Representative

Sample Description

Stack Emission

Sampling Time

60 Minutes

Sampling Plan & Procedure

SOP/SE/09

**Analysis Duration** 

08/12/2022 To 12/12/2022 28.0

Ambient Temperature (°C)

Stack Temperature (°C)

107.0

Source of Emission

Stack Attached to Induction Furnace

Type of Fuel used Operating Load

Electricity

Type of Stack

Normal Metal Circular

24.0

Stack Height from Ground Level (meter)

Average Velocity of Flue Emission (m/s)

10.9

Quantity of Emission Discharged (m<sup>3</sup>/hr)

38682.51

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S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)				
1.	Particulate Matter (PM)	IS:11255(Part-1)	15.0	mg/Nm <sup>3</sup>					
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	8.1	mg/Nm <sup>3</sup>	204				
3,	Nîtrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	14.5	mg/Nm <sup>3</sup>	Not Specified				
4	Carbon Monoxide (CO)	IS:13270	0.11	% by Vol.	1% By Volume				
5	Carbon Dioxide (CO2)	IS:13270	1.79	% by Vol.	Not Specified				



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Report Code SE-081022-03 (Page-1 of 2)

#### TEST REPORT

Stack Emission Analysis

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn on : 06/10/2022

Sample Drawn By : ITS Representative Sample Description : Stack Emission

Sampling Time : 60 Minutes Sampling Plan & Procedure : SOP/SE/09

Analysis Duration : 08/10/2022 To 12/10/2022

Ambient Temperature (°C) : 32.0 Stack Temperature (°C) : 102.0

Source of Emission : Stack Attached to Induction Furnace

Type of Fuel used : Electricity
Operating Load : Normal
Type of Stack : Metal Circular

Stack Height from Ground Level (meter) : 24.0

Average Velocity of Flue Emission (m/s) : 11.5

Quantity of Emission Discharged (m³/hr) : 38175.82

	der en	TEST RESU	JLT		
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)
1.	Particulate Matter (PM)	IS:11255(Part-1)	13.3	.mg/Nm <sup>3</sup>	91.
2.	Sulphur Dioxide (SO2)	IS:11255(Part-2)	8.7	mg/Nm³	
3.	Nitrogen Dioxide (NO2)	IS:11255(Part-7)	15.1	mg/Nm <sup>3</sup>	Not Specified

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Website: www.itslab.ln, Email: contact@itslab.in, info@itslab.in, itfrclab@gmail.com
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code SE-081022-03 (Page-2 of 2)

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	4	CarbonMonoxide(CO)	IS:13270	0.14	% by Vol.	1% By Volume
	5	CarbonDioxide(CO2)	IS:13270	1.85	% by Vol.	Not Specified

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Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305. (U.P.)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.in, Email: itslaboratorypythtd@gmail.com, info@itslab.in,
contact@itslab.in, ithrelab@gmail.com

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#### TEST REPORT

Stack Emission Analysis

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn on : 06/02/2023

Sample Drawn By : ITS Representative Sample Description : Stack Emission

Sampling Time : 60 Minutes Sampling Plan &Procedure : SOP/SE/09

Analysis Duration : 08/02/2023 To 11/02/2023

Ambient Temperature (°C) : 28.0 Stack Temperature (°C) : 209.0

Source of Emission : Stack Attached to CPP

Type of Fuel used : Coal
Operating Load : Normal
Type of Stack : Metal Circular

Type of Stack : Meta
Stack Height from Ground Level (meter) : 69.0

Average Valority of Flue Emission (m/s) : 8.2

Average Velocity of Flue Emission (m/s) : 8.2

Quantity of Emission Discharged (m³/hr) : 123918.75

	TEST RESULT									
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)					
1.	Particulate Matter (PM)	IS:11255(Part-1)	60.3	mg/Nm <sup>3</sup>	-					
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	17.5	mg/Nm <sup>3</sup>						
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	28.4	mg/Nm <sup>3</sup>	Not Specified					
4	Carbon Monoxide (CO)	IS:13270	0.18	% by Vol.	1% By Volume					
<del>`</del>	Carbon Dioxide (CO2)	IS:13270	0.58	% by Vol.	Not Specified					

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### ITS TESTING LABORATORY

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#### TEST REPORT

Stack Emission Analysis

Report Code: SE-081222-02

Issue Date: 12/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn on

06/12/2022

Sample Drawn By

ITS Representative

Sample Description

Stack Emission

Sampling Time

60 Minutes SOP/SE/09

Sampling Plan & Procedure Analysis Duration

08/12/2022 To 12/12/2022

Ambient Temperature (°C)

28.0

Stack Temperature (°C)

201.0

Source of Emission

Stack Attached to CPP

Type of Fuel used

Coal

Operating Load

Normal

Type of Stack

Metal Circular

Stack Height from Ground Level (meter)

69.0

Average Velocity of Flue Emission (m/s)

7.9

Quantity of Emission Discharged (m<sup>3</sup>/hr)

124028.31

S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)
1.	Particulate Matter (PM)	IS:11255(Part-1)	55.8	mg/Nm <sup>3</sup>	
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	16.2	mg/Nm <sup>3</sup>	44
3.	Nitrogen Dioxide (NO2)	IS:11255(Part-7)	24.9	mg/Nm <sup>3</sup>	Not Specified
4	Carbon Monoxide (CO)	IS:13270	0.14	% by Vol.	1% By Volume
5	Carbon Dioxide (CO2)	IS:13270	0.30	% by Vol.	Not Specified



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Report Code SE-081022-02 (Page-1 of 2)

#### TEST REPORT

Stack Emission Analysis

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn on : 06/10/2022

Sample Drawn By : ITS Representative Sample Description : Stack Emission 60 Minutes

Sampling Time : 60 Minutes Sampling Plan & Procedure : SOP/SE/09

Analysis Duration : 08/10/2022 To 12/10/2022

Ambient Temperature (°C) : 32.0 Stack Temperature (°C) : 207.0

Source of Emission : Stack Attached to CPP

Type of Fuel used : Coal
Operating Load : Normal
Type of Stack : Metal Circular

Stack Height from Ground Level (meter) : 69.0 Average Velocity of Flue Emission (m/s) : 7.5

Quantity of Emission Discharged (m<sup>3</sup>/hr) : 121362.57

		TEST RESU	JLT		
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)
1.	Particulate Matter (PM)	IS:11255(Part-1)	53.2	mg/Nm <sup>3</sup>	*
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	15.0	mg/Nin <sup>3</sup>	
3.	Nitrogen Dioxide (NO2)	IS:11255(Part-7)	22.4	mg/Nm <sup>3</sup>	Not Specified

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Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
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	Report Code	SE-081022-02	(Page-2	of 2)
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4	CarbonMonoxide(CO)		18:13270	0.12	% by Vol	1% By Volume	1
1 0	CarbonDioxide(CO2)	į.	18:13270	0.25	% by Vol.	Not Specified	

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### ITS TESTING LABORATORY (P

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypvtltd@gmail.com, info@itslab.in, contact@itslab.in. itlrclab@gmail.com

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#### TEST REPORT

Stack Emission Analysis

Report Code: SE-090223-04

Issue Date: 13/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn on

07/02/2023

Sample Drawn By

ITS Representative

Sample Description

Stack Emission

Sampling Time

60 Minutes

Sampling Plan &Procedure

SOP/SE/09

Analysis Duration

09/02/2023 To 13/02/2023

Ambient Temperature (°C)

28.0

Stack Temperature (°C)

109.0

Source of Emission

Stack Attached to Rotary Kiln

Type of Fuel used

Coal

Operating Load

Normal

Type of Stack

Metal Circular 39.0

Stack Height from Ground Level (meter)

8.0

Average Velocity of Flue Emission (m/s) Ouantity of Emission Discharged (m³/hr)

6971.35

	TEST RESULT							
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)			
1,	Particulate Matter (PM)	IS:11255(Part-1)	42.5	mg/Nm <sup>3</sup>				
2,	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	16.5	mg/Nm <sup>3</sup>	-			
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	29.8	mg/Nm <sup>3</sup>	Not Specified			
4	Carbon Monoxide (CO)	IS:13270	0.24	% by Vol.	1% By Volume			
. 5	Carbon Dioxide (CO2)	IS:13270	1.27	% by Vol.	Not Specified			



Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P)
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#### TEST REPORT

Stack Emission Analysis

Report Code; SE-091222-04

Issue Date: 13/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn on : 07/12/2022

Sample Drawn By : ITS Representative Sample Description : Stack Emission Sampling Time : 60 Minutes

Sampling Plan & Procedure : SOP/SE/09

Analysis Duration : 09/12/2022 To 13/12/2022

Ambient Temperature (°C) : 28.0 Stack Temperature (°C) : 105.0

Source of Emission : Stack Attached to Rotary Kiln

Type of Fuel used : Coal
Operating Load : Normal
Type of Stack : Metal Circular

Stack Height from Ground Level (meter) : 39.0
Average Velocity of Flue Emission (m/s) : 7.6
Quantity of Emission Discharged (m³/hr) : 6855.90

TEST RESULT								
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)			
1.	Particulate Matter (PM)	IS:11255(Part-1)	31.6	mg/Nm <sup>3</sup>				
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	14.7	mg/Nm <sup>3</sup>				
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	25.3	mg/Nm <sup>3</sup>	Not Specified			
4	Carbon Monoxide (CO)	IS:13270	0.18	% by Vol.	1% By Volume			
5	Carbon Dioxide (CO2)	IS:13270	1.34	% by Vol.	Not Specified			

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Report Code SE-091022-04 (Page-1 of 2)

#### TEST REPORT

Stack Emission Analysis

Report Code: SE-091022-04

Issue Date: 13/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Augadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn on : 07/10/2022

Sample Drawn By : ITS Representative Sample Description : Stack Emission Sampling Time : 60 Minutes

Sampling Plan & Procedure : SOP/SE/09

Analysis Duration : 09/10/2022 To 13/10/2022

Ambient Temperature (°C) : 32.0 Stack Temperature (°C) : 98.0

Source of Emission : Stack Attached to Rotary Kiln

Type of Fuel used : Coal Operating Load : Normal

Type of Stack : Metal Circular

Stack Height from Ground Level (meter) : 39.0

Average Velocity of Flue Emission (m/s) : 7.1

Quantity of Emission Discharged (m³/hr) : 6618.54

	TEST RESULT					
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)	
1.	Particulate Matter (PM)	IS:11255(Part-1)	26.2	mg/Nm <sup>3</sup>	*	
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	13.8	mg/Nmi <sup>3</sup>	N4	
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	19.1	mg/Nm <sup>3</sup>	Not Specified	

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Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)

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Report Code SE-091022-04 (Page-2 of 2)

4	Carbon Monoxide(CO)	IS:13270	0.13	% by Vol.	1% By Volume
5	Carbon Dioxide(CO2)	IS:13270	1.26	% by Vol.	Not Specified

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Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Buth Nagar - 201305, (U.P)
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TEST REPORT

Stack Emission Analysis

Report Code: SE-070223-01

Issue Date: 11/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn on : 05/02/2023

Sample Drawn By : ITS Representative Sample Description : Stack Emission Sampling Time : 60 Minutes

Sampling Plan & Procedure : SOP/SE/09

Analysis Duration : 07/02/2023 To 11/02/2023

Ambient Temperature (°C) : 28.0 Stack Temperature (°C) : 88.0

Source of Emission : Stack Attached to Cooler Discharge

Type of Fuel used : Coal
Operating Load : Normal

Type of Stack : Metal Circular
Stack Height from Ground Level (meter) : 24.0

Stack Height from Ground Level (meter) : 24.0

Average Velocity of Flue Emission (m/s) : 9.2

Quantity of Emission Discharged (m³/hr) : 7518.24

TEST RESULT					
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)
1.	Particulate Matter (PM)	IS:11255(Part-1)	44.6	mg/Nm <sup>3</sup>	
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	17.2	mg/Nm <sup>3</sup>	-
3.	Nitrogen Dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	32.8	mg/Nm <sup>3</sup>	Not Specified
4	Carbon Monoxide (CO)	IS:13270	0.20	% by Vol.	1% By Volume
5	Carbon Dioxide (CO2)	IS:13270	1.44	% by Vol.	Not Specified

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# ITS TESTING LABORATORY

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TEST REPORT

Stack Emission Analysis

Report Code: SE-071222-01

Issue Date: 11/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn on

05/12/2022

Sample Drawn By

ITS Representative

Sample Description

Stack Emission

Sampling Time

60 Minutes

Sampling Plan & Procedure

SOP/SE/09

Analysis Duration

07/12/2022 To 12/12/2022

Ambient Temperature (°C) Stack Temperature (°C)

28.0

83.0

Source of Emission

Stack Attached to Cooler Discharge

Type of Fuel used

Coal

Operating Load

Normal

Type of Stack

Metal Circular

Stack Height from Ground Level (meter) Average Velocity of Flue Emission (m/s)

24.0

8.6

Quantity of Emission Discharged (m<sup>3</sup>/hr)

7273.58

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S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)	
1.	Particulate Matter (PM)	IS:11255(Part-1)	40.2	mg/Nm <sup>3</sup>	*	
2.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	15.5	mg/Nm <sup>3</sup>	20	
3.	Nitrogen Dioxide (NO2)	IS:11255(Part-7)	27.1	mg/Nm <sup>3</sup>	Not Specified	
4	Carbon Monoxide (CO)	IS:13270	0.16	% by Vol.	1% By Volume	
5	Carbon Dioxide (CO2)	IS:13270	1.37	% by Vol.	Not Specified	



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Report Code SE-071022-01 (Page-1 of 2)

#### TEST REPORT

Stack Emission Analysis

Report Code: SE-071022-01

Issue Date: 11/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn on : 05/10/2022

Sample Drawn By : ITS Representative Sample Description : Stack Emission Sampling Time : 60 Minutes

Sampling Time : 60 Minutes Sampling Plan &Procedure : SOP/SE/09

Analysis Duration : 07/10/2022 To 11/10/2022

Ambient Temperature (°C) : 32.0 Stack Temperature (°C) : 79.0

Source of Emission : Stack Attached to Cooler Discharge

Type of Fuel used : Coal
Operating Load : Normal

Type of Stack : Metal Circular Stack Height from Ground Level (meter) : 24.0

Average Velocity of Flue Emission (m/s) : 8.1

Quantity of Emission Discharged (m³/hr) : 7216.34

	TEST RESULT ;					
S.N.	Parameter	Test Method	Results	Units	Specification / Limit (As Per CPCB Norms)	
1.	Particulate Matter (PM)	IS:11255(Part-L)	37.6	mgNm <sup>3</sup>	**	
")	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	148	mg/Nm <sup>3</sup>	400000000000000000000000000000000000000	
3.	Nitrogen Dioxide (NO <sub>2</sub> )	18:11255(Part-7)	22.5	mg/Nm <sup>3</sup>	Not Specified ;	

CHECKERBY



### LABORATORY

Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634

Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code SE-071022-01 (Page-2 of 2)

		***************************************		*** ***********************************	A Own OR (1 HRC-T OLT)
4	CarbonMonoxide(CO)	IS:13270	0.13	1 % by Vol i	1% By Volume
5	CarbonDioxide(CO2)	IS:13270	1.30	% by Vol.	Not Specified

CHECKED BY

### Fugitive Emission Quality report for the month of October'22 - March'23



### ITS TESTING LABORATOR

Laboratory:A-114, Sector-80, Phuse-II, Noida, Gautam Budh Nagar - 201305, (U.P) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: Itslaboratorypythtd@gmail.com, info@itslab.in, contact@itslab.in, hirclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-070223-06

Issue Date: 11/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

ITS Representative

Date of Sampling

05/02/2023

Sample Description

Fugitive Air Near Product House

Sampling Location

6 Hours.

Sampling Duration Sampling Plan &Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

07/02/2023 To 11/02/2023

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Weather Condition Clear

	TEST RESULT					
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act	
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	65.9	μg/m³	100	
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	162.2	μg /m³	600	
3,	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.0	μg/m³	80	
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	30.7	μg/m³	80	

oratory, 2. Samples will destroyed as per quality policy.



### ITS TESTING LABORATOR

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305. (U.P.) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytitd@gmail.com, info@itslab.in, contact@itslab.in, itlrelab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-071222-06

Issue Date: 11/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

05/12/2022

Sample Description

Fugitive Air

Sampling Location

Near Product House

Sampling Duration

6 Hours.

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

07/12/2022 To 12/12/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Clear

Weather Condition

	TEST RESULT					
S.No.	Parameter ·	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act	
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	61.6	μg/m³	100	
2. )	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	154.5	μg/m³	600	
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	13.5	μg/m³	80	
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	28.1	μg/m³	80	



Cabo aton 250, Sector 60, Phase 2, Nona Gadrian Budh rhagar 201301, rb 2 Fig. 09/4116, 03: 30: 93/47: 30/17: 09/95/4497: 31,0 -2108/6/334 modular policy of the first and contact of the first of t An ISO 9801, 2015, ISO 11061-2015, ISO 45001:2018 Certified Laboratory)



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#### TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-061022-02

Issue Date: 11/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

04/10/2022

Sample Description

Fugitive Air

Sampling Location

Near Product House

Sampling Duration

6 Hours.

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

06/10/2022 To 11/10/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Clear

Weather Condition

	TEST RESULT				
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act
l.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	57.0	μg/m³	100
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	146	μg/m³	600
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	12.9	μg/m³	80
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	23.3	μg/m³	80

GNATORY



Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P)
An ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018 Certified Laboratory)
Website: www.itslab.in, Email: itslaboratorypytltd@gmail.com, info@itslab.in,
contact@itslab.in, itlrciab@gmail.com
+91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-070223-07

Issue Date: 11/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

: ITS Representative

Date of Sampling

05/02/2023

Sample Description

Fugitive Air

Sampling Location

Near Raw Material Handling Yard (DRI)

Sampling Duration :

6 Hours.

Sampling Plan &Procedure

ITS/LAB/SOP-AAQ/08 07/02/2023 To 11/02/2023

Analysis Duration Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition

Clear

	TEST RESULT					
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act	
J.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	79.8	μg/m³	100	
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	166.2	μg/m³	600	
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	16.0	$\mu g/m^3$	80	
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	35,4	μg/m³	80	

CHECKED BY

AUTHORIZED SIGNATORY

Any complaints about this report should be communicated in writing w

. Total liability of our laboratory is limited to invoiced amous



Lationators (4-41 % Sector-80, Phase-H, Noith, Guatam Budh Nagar - 20140a, (U.P) An 15D 9004: 2018, 18O 44004:2018, 48O 45004:2018 Certified Laboratory) Website, www.itslab.in. Email: Itslaboratorypythd@gnail.com, info@itslab.in. contact@itslab.in, ithrelab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-071222-07

Issue Date: 11/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

05/12/2022

Sample Description

Fugitive Air

Sampling Location

Near Raw Material Handling Yard (DRI)

Sampling Duration

6 Hours.

Sampling Plan & Procedure

ITS/LAB/SOP-AAQ/08

Analysis Duration

07/12/2022 To 11/12/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Clear

Weather Condition

***************************************	TEST RESULT					
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act	
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	75.2	μg/m³	100	
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	161.9	μg/m³	600	
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	15.1	μg/m³	80	
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	32.7	$\mu g/m^3$	80	

CHECKED BY



ि में अत्रविकार A-अ।, Sector-80, Phase-2, Nolda, Gantam Budh Nagar - 201301, (U.P.) M · 09911659800,9305780312,09958849764,07210898654 Wohsiter www.itslab.in, f.mail: contact@itslab in, info@itslab.in, ithelab@gmail.com An ISU 9001, 7615, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



#### TEST REPORT

Fugitive Air Quality Analysis

Report Code: AAQ-071022-03

Issue Date: 11/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Drawn By

ITS Representative

Date of Sampling

05/10/2022

Sample Description

Fugitive Air

Sampling Location

Sampling Duration

Near Raw Material Handling Yard (DRI)

Sampling Plan &Procedure

6 Hours.

Analysis Duration

ITS/LAB/SOP-AAQ/08 07/10/2022 To 11/10/2022

Sampling Instrument Used

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM2.5) With Gaseous Attachment

Clear

Weather	Condition
AA MELLIYA'	~~!!!!!!!!!!!!!

***************************************		TEST RESI	JLT		
S.No.	Parameter	Test Method	Results	Units	Permissible Limit of Exposure As Per CPCB/Factories Act
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	70.0	μg/m³	100
2.	Suspended Particulate Matter (SPM)	IS:5182 Part-XXIII	152,4	μg/m³	600
3.	Sulphur dioxide (as SO <sub>2</sub> )	IS:5182 Part-II	14.5	μg/m <sup>3</sup>	80
4.	Nitrogen dioxide (as NO <sub>2</sub> )	IS:5182 Part-VI	28.4	μg/m³	80

NATORY

#### Waste Water Analysis report for the month of October'22 - March'23



### ITS TESTING LABORATORY (P) LTD.

Laboratory:A-114, Sector-80, Phase-II, Nolda, Gautam Budh Nagar - 201305, (U.P) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.la, Email: itslaboratorypviltd@gmail.com, info@itslab.la, contact@itslab.la, ltirclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Waste Water Sample Analysis

Report Code: WW-070223-01

Issue Date: 11/02/2023

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn On

Sample Received On

Sample Drawn By Sample Description

Sample Quantity/Packing detail

Analysis Duration

05/02/2023

07/02/2023

ITS Representative

: Drain of DRI Plant

: 5ltr. in Plastic Cane & 500ml in Glass Bottle

: 07/02/2023 To 11/02/2023

	TEST RESULTS								
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms				
1.	pH	IS:3025(Part-11):1983	7.39	*	5.5 - 9.0				
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	32.0	mg/l	100 max				
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	62.0	mg/l	250 max				
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	17.0	mg/l	30 max				
5.	Oil & grease	IS:3025(Part-39):1984	3.2	mg/l	10 max				

Remark: CPCB- Central Pollution Control Board.

CHECKED BY

AUTHORIZED SIGNATORY

Terms & Conditions:

3. Any complaints about this report should be communicated in writing within 7 days

4. Total liability of our faboratory is limited to involced amount



### ITS TESTING LABORATOR

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytltd@gmail.com, info@itslab.in, contact@itslab.in, itlrelab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Waste Water Sample Analysis

Report Code: WW-071222-01

Issue Date: 11/12/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

05/12/2022

07/12/2022

ITS Representative

Drain of DRI Plant

5ltr. in Plastic Cane & 500ml in Glass Bottle

07/12/2022 To 12/12/2022

	,	TEST RESULTS		***************************************	
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms
1.	pH	IS:3025(Part-11):1983	7.46	**	5.5 - 9.0
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	37.0	mg/l	100 max
3.	Chemical Oxygen Demand (as O2)	APHA 5220 B:2005	54.0	mg/I	250 max
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	19.0	mg/l	30 max
5.	Oil & grease	IS:3025(Part-39):1984	3.6	mg/l	10 max

Remark: CPCB- Central Pollution Control Board.

ED-SIGNATORY



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#### TEST REPORT

Waste Water Sample Analysis

Report Code: WW-061022-01

Issue Date: 11/10/2022

Issue To

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M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

: 04/10/2022 : 06/10/2022

00/10/2022

ITS Representative

Drain of DRI Plant

5ltr. in Plastic Cane & 500ml in Glass Bottle

: 06/10/2022 To 11/10/2022

TEST RESULTS								
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms			
1,	pН	IS:3025(Part-11):1983	7.52	24	5.5 – 9.0			
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	43.0	mg/l	100 max			
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	48.2	ıng/l	250 max			
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	17.5	mg/l	30 max			
5.	Oil & grease	IS:3025(Part-39):1984	2.4	mg/l	10 max			

Remark: CPCB- Central Pollution Control Board.

CHECKERBY

AUTHORIZED S GNATORY

Terms & Conditions :

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1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test reports unless otherwise specified. 3. Any complaints about this report should be communicated in writing within 7 days of this report.



Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P. An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Website: www.itslab.in, Email: itslaboratorypytitd@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com

+91 9911659800,09958849764,9305780312,07210888634



#### **TEST REPORT**

Waste Water Sample Analysis

Report Code: WW-070223-02

Issue Date: 11/02/2023

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

05/02/2023

07/02/2023

: ITS Representative

Drain Near Security Gate

5ltr. in Plastic Cane & 500ml in Glass Bottle

: 07/02/2023 To 11/02/2023

	TEST RESULTS								
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms				
1.	pH	IS:3025(Part-11):1983	7.34	-	5.5 - 9.0				
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	36.0	mg/l	100 max				
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	56.0	mg/l	250 max				
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	15.0	mg/l	30 max				
5.	Oil & grease	IS:3025(Part-39):1984	<1.0	mg/l	10 max				

Remark: CPCB- Central Pollution Control Board.

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-diarratory: A-11s, Nector 30, Phase-11, Nolda, Guatam Budh Nagar - 201308, (1.15) An 18O 9001: 2015. ISO 14001:2015, ISC+15001:2018 Certified Caboratory -Website: www.itslab.in, Email. Itslaboratory pythtida garail.com, infouritslab.in, contactud itslab.in, Hirelab digmail.com 191-9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Waste Water Sample Analysis

Report Code: WW-071222-02

Issue Date: 11/12/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

: 05/12/2022 : 07/12/2022

: ITS Representative

Drain Near Security Gate

Drain Near Security Gate

5ltr. in Plastic Cane & 500ml in Glass Bottle 07/12/2022 To 12/12/2022

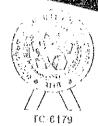
	•	TEST RESULTS			
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms
1.	pH	IS:3025(Part-11):1983	7.42	<u>-</u>	5.5 – 9.0
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	41.0	mg/l	100 max
3.	Chemical Oxygen Demand (as O <sub>2</sub> )	APHA 5220 B:2005	49.0	mg/l	250 max
4.	Biological Oxygen Demand (as O <sub>2</sub> )	1S:3025(Part-44):1993	17.0	mg/l	30 max
5,	Oil & grease	IS:3025(Part-39):1984	1.4	mg/l	10 max

Remark: CPCB- Central Pollution Control Board.

CHECKED BY



Laboratory, A. 91, Sector. 80, Phase-2, Noida, Gautam Budh Nagar. - 201301, (U.f.) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itsiab.in. Email: contact@itslab.in, info@itslab.in, Illiclab@gmail.com An ISO 9001: 2015, ISO 14001;2015, ISO 45001;2018 Certified Laboratory)



#### TEST REPORT

Waste Water Sample Analysis

Report Code: WW-061022-02

Issue Date: 11/10/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Drawn On

Sample Received On

Sample Drawn By

Sample Description

Sample Quantity/Packing detail

Analysis Duration

: 04/10/2022

06/10/2022

ITS Representative

Drain Near Security Gate

: 5ltr. in Plastic Cane & 500ml in Glass Bottle

06/10/2022 To 11/10/2022

		TEST RESULTS			
S.No.	Parameter	Test Method	Results	Units	Limit as per CPCB Norms
1.	pI-l	IS:3025(Part-11):1983	7.48	-	5.5 - 9.0
2.	Total Suspended Solid (TSS)	IS:3025(Part-17):1984	45.0	mg/l	100 max
3.	Chemical Oxygen Demand (as O2)	APHA 5220 B:2005	52.5	mg/l	250 max
4.	Biological Oxygen Demand (as O <sub>2</sub> )	IS:3025(Part-44):1993	19.5	mg/l	30 max
5.	Oil & grease	IS:3025(Part-39):1984	2.0	mg/l	10 max

Remark: CPCB- Central Pollution Control Board.

CHECKED BY

### Water Quality Analysis report for the month of October'22 - March'23



### ITS TESTING LABORATORY (P) LTD.

Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2013 Certified Laboratory)
Website: www.itslab.in, Email: itslaboratorypytitd@gmail.com, info@itslab.in,
contact@itslab.in, itirclab@gmail.com
+91 9911659800,09958849764,9305780312,07210888634



Report Code: W-070223-01 (Page- 1 of 2)

### TEST REPORT

Water Sample Analysis

Report Code: W-070223-01

Issue Date: 11/02/2023

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

#### SAMPLING & ANALYSIS DATA

Sample Received On

: 05/02/2023

Sample Drawn By

ITS Representative

Sample Description

Raw Water Storage Tank

Sample Drawn On

: 07/02/2023

Sample Quantity Analysis Duration 4.0 Liter Plastic Bottle & 500ml in Glass Bottle.

: 07/02/2023 To 11/02/2023

				mits 10500-2018)			
S.No.	Parameters	Units	Desírable Limit	Permissible Limit	Results	Test Method	
i	Color	Hazen	5	15	<1.0	IS:3025(Pt-4)	
2	Odour		Agreeable	Agreeable	Agreeable	IS:3025(Pt-5)	
3	Turbidity	NTU	1	5	<1.0	IS:3025(Pt-10)	
4	На		6.5-8.5	No Relaxation	7.41	IS:3025(Pt-11)	
5	Total Hardness (as CaCO3)	mg/l	200	600	68	IS:3025(Pt-21)	
6	Iron (as Fe)	mg/l	1.0	No Relaxation	< 0.05	APHA22 <sup>nd</sup> Ed.,3120	
7	Chlorides (as Cl)	mg/l	250	1000	20.0	IS:3025(Pt-32)	
8	Fluoride (as F)	mg/l	1	1.5	<0.1	APHA22 <sup>nd</sup> Ed.,4500 F (D)	
9	TDS	mg/l	500	2000	152	IS:3025(Pt-16)	
10	Calcium (as Ca <sup>2+</sup> )	mg/l	75	200	15.2	IS:3025(Pt-40)	
11	Magnesium (as Mg <sup>2+</sup> )	mg/l	30	100	7.33	APHA22 <sup>nd</sup> Ed.,3500- Mg (B)	
12	Sulphate (as SO4)	mg/l	200	400	13.28	IS:3025(Pt-24)	
13	Free Residual Chlorine	mg/l	0.2	1	Nil	IS:3025(Pt-26)	

снееверву

AUTHORIZED SIGNATORY

erms & Conditions :

1 Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed as per quality policy.

3. Any complaints about this report should be communicated in writing within 7 days.

Any complaints about this report another to invoiced amount,
 Total liability of our laboratory is limited to invoiced amount,



ITS TESTING LABORATORY (P) LTD,
Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.)
An 18Ó 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.lu, Email: itslaboratorypvittd/a gmail.com, info@ itslab.in,
contact@itslab.in, itlrclab@gmail.com
+91 9911659800. 93505780312, 09958649764, 07210888634

					Report Cod	e: W-070223-01 (Page- 2 of 2)
14	Copper (as Cu)	mg/l	0.05	1.5	ND	APHA22 <sup>nd</sup> Ed.,3120B/3111 B(AAS)
15	Cadmium(asCd)	mg/l	0.002	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 B (AAS)
16	Arsenic(asAs)	mg/l	0.01	0.05	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3114, AAS- VGA
17	Cyanide(asCN)	mg/l	0.05	NoRelaxation	ND	APHA 2211d Ed., 4500CN
18	Lead(asPb)	mg/l	10.0	NoRelaxation	ND	APHA 22 <sup>sd</sup> Ed., 3120 B / 3111 BAAS
19	Zinc(asZn)	mg/l	5	15	ND	APHA 22 <sup>nd</sup> Ed., 3120 B/ 3111 B (AAS)
20	Nickel(asNi)	mg/l	0.03	NoRelaxation	ND	APHA 3111 (B)
21	Chromium(asCr <sup>6</sup> )	mg/l	0.04	NoRelaxation	ND	IS:3025(Pt-52)
22	Alkalinity(asCaCO <sub>3</sub> )	mg/l	191	600	70	IS:3025(Pt-23)
23	Aluminum(asAl)	mg/l	0.02	0.2	ND	APHA 22 <sup>nd</sup> Ed3120 B / 3111 B (AAS) / IS3025 (pt-55)
24	Conductivityat25°C	mS	Not Specified	NotSpecified	236	APHA 2510
25	Taste		Agreeable	Agreeable	Agrecable	IS:3025(Pt-8)
	BacteriologicalParamete	ers				
l	Total Coliform		MPN/100ml	Shall Not Be Detectable	NotDetected(<2)	IS:1622-1981(Reaff.2003)
2	E.coli		E.coli/100ml	Shall Not Be Detectable	Absent	IS:1622-1981(Reaff.2003)



### TESTING LABORATORY

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypythtd@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com
+91 9911659800,09958849764,9305780342,07210888634



Report Code: W-071222-01 (Page- 1 of 2)

#### TEST REPORT

Water Sample Analysis

Report Code: W-071222-01

Issue Date: 11/12/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

#### **SAMPLING & ANALYSIS DATA**

Sample Received On

05/12/2022

Sample Drawn By

ITS Representative

Sample Description

· Raw Water Storage Tank

Sample Drawn On

07/12/2022

Sample Quantity

4.0 Liter Plastic Bottle & 500ml in Glass Bottle.

**Analysis Duration** 

07/12/2022 To 12/12/2022

S Na	Parameters Unit	¥Tn <b>i</b> ta	Limits (as per IS:10500-2012)			
D-13 4474		Units	Desirable Limit	Permissible Limit	Results	Test Method
1	Color	Hazen	5	15	<1.0	IS:3025(Pt-4)
2	Odour	**	Agreeable	Agreeable	Agreeable	IS:3025(Pt-5)
3	Turbidity	NTU	1	5	<1.0	IS:3025(Pt-10)
4	рН	4	6.5-8.5	No Relaxation	7.35	IS:3025(Pt-11)
5	Total Hardness (as CaCO3)	mg/l	200	600	62	IS:3025(Pt-21)
6	Iron (as Fe)	mg/1	0.3	No Relaxation	0.05	APHA22ndEd.,3120
7	Chlorides (as Cl)	mg/l '	250	1000	17.0	IS:3025(Pt-32)
8	Fluoride (as F)	mg/l	1	1.5	<0.1	APHA22 <sup>nd</sup> Ed.,4500 F
9	TDS	mg/l	500	2000	140	IS:3025(Pt-16)
10	Calcium (as Ca <sup>2+</sup> )	mg/l	75	200	14.0	IS:3025(Pt-40)
11	Magnesium (as Mg <sup>2+</sup> )	mg/l	30	100	6.60	APHA22 <sup>nd</sup> Ed.,3500- Mg (B)
12	Sulphate (as SO4)	mg/l	200	400	12.5	IS:3025(Pt-24)
13	Free Residual Chlorine	mg/l	0.2	1	Nil	IS:3025(Pt-26)

CHECKED



Luboratory: A-114, Sector-80, Phase-H, Noida, Gautam Budh Nagar - 201305, (U.P) An 18O 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in. Email: itslaboratorypytitd@gmail.com, info@itslab.in, contact@itslab.in, ftlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634

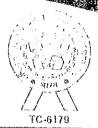
Report Code: W-071222-01 (Page- 2 of 2)

14	Copper (as Cu)	mg/l	0.05	1.5	ND	APHA22 <sup>nd</sup> Ed.,3120B/3111 B(AAS)
15	Cadmium(asCd)	mg/l	0.002	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 B (AAS)
16	Arsenic(asAs)	mg/l	0.01	0.05	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3114, AAS- VGA
17	Cyanide(asCN)	mg/l	0.05	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 4500CN
: 18	Lead(asPb)	n1\gra	0.01	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 BAAS
19	Zinc(asZn)	mg/l	5	15	ND	APHA 22 <sup>nd</sup> Ed., 3120 B/ 3111 B (AAS)
	Nickel(asNi)	mg/l	0.03	NoRelaxation	. ND	APHA 3111 (B)
21	Chromium(asCr <sup>6+</sup> )	mg/l	0.04	NoRelaxation	; ND	IS:3025(Pt-52)
22	Alkalinity(asCaCO3)	mg/l	191	600	70	IS:3025(Pt-23)
23	Aluninum(asAl)	mg/l	0.02	0.2	ND	APHA 22 <sup>nd</sup> Ed3120 B / 3111 B (AAS) / IS3025 (pt-55)
24	Conductivityat25°C	mS	Not Specified	NotSpecified	225	APHA 2510
25	Taste	**	Agreeable	Agreeable	Agreeable	IS:3025(Pt-8)
	BacteriologicalParamete	rs				i
1	Total Coliform		MPN/100m1	Shall Not Be Detectable	NotDetected(<2)	IS:1622-1981(Reaff.2003)
2	E,coli		E.coli/100ml	Shall Not Be Detectable	Absent	IS:1622-1981(Reaff,2003)

CHECKED BY



Laboratory: A 91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210886634 Web site, www.itslah in, Email: contact@itslab.in, info@itslab.in, itlrelab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



Report Code: W-061022-01 (Page- 1 of 2)

### TEST REPORT

Water Sample Analysis

Report Code: W-061022-01

Issue Date: 11/10/2022

Issue To

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

### SAMPLING & ANALYSIS DATA

Sample Received On

Sample Drawn By

Sample Description

Sample Drawn On

Sample Quantity **Analysis Duration**  04/10/2022

ITS Representative

Raw Water Storage Tank

06/10/2022

4.0 Liter Plastic Bottle & 500ml in Glass Bottle.

06/10/2022 To 11/10/2022

•			Limits				
S.No.	Parameters	Units	(as per IS	:10500-2012)	Results	7 (SEC) 1 (SEC) 19 (SEC) 19	
G0.101	a cea sellengers is	<b>47 88343</b>	Desirable	Permissible	Resums	Test Method	
:			Limit	Limit	e t		
1	Color	Hazen -	5	15	<1.0	IS:3025(Pt-4)	
2	Odour	les.	Agreeable	Agreeable	Agreeable	IS:3025(Pt-5)	
3	Turbidity	NTU	1	5	<1.0	IS:3025(Pt-10)	
4	pH.	•	6.5-8.5	No Relaxation	7.42	IS:3025(Pt-11)	
5 .	Total Hardness (as CaCO3)	mg/l	200	600	56	IS:3025(Pt-21)	
6	Iron (as Fe)	mg/l	0.3	No Relaxation	0.07	APHA22ndEd_3120	
7	Chlorides (as Cl)	mg/l	250	1000	14.0	IS:3025(Pt-32)	
8	Fluoride (as F)	mg/l	1	1.5	< 0.1	APHA22 <sup>nd</sup> Ed.,4500 F	
_						(D)	
9	TDS	mg/l	500	2000	132	IS:3025(Pt-16)	
10	Calcium (as Ca <sup>2-</sup> )	mg/l	75	200	12.4	IS:3025(Pt-40)	
11	Magnesium (as Mg <sup>2+</sup> )	mg/l	30	100	6.11	ΔΡΗΑ22 <sup>nd</sup> Ed.,3500-	
						Mg (B)	
12	Sulphate (as SO4)	mg/l	200	$40\overline{0}$	11.6	IS:3025(Pt-24)	
13	Free Residual Chlorine	mg/l	0.2	1	Nil	IS:3025(Pt-26)	

SIGNATORY



Laterstorv:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P.)
M.: 09911559800,9305780312,03958849764.07210863634
Website: www.itslab.in, Email. contact@itslab.in, info@relab.in, lttrolab@gmail.com
An ISO 9001; 2015, ISO 14001;2015, ISO 45001,2018 Certified Laboratory)

					Report Code	Report Code: W-061022-01 (Page- 2 of 2)				
14	Copper (as Cu)	mg/l	0.05	1.5	ND	APHA22 <sup>nd</sup> Ed3120B/3111 B(AAS)				
15	Cadmium(asCd)	ıng/l	0.002	NoRelaxation	ND	APHA 22 <sup>nd</sup> Ed., 3120 B / 3111 B (AAS)				
16	Arsenic(asAs)	mg/l	10.0	0.05	ND	ΛΡΗΑ 22 <sup>nd</sup> Ld., 3120 B / 3114, ΛΑS- VGA				
17	Cyanide(asCN)	mg/l	0.05	NoRelaxation	ND	APHA 22nd Ed., 4500CN				
18	Lead(asPb)	mg/l	0.01	NoRelaxation	ND	APHA 22 <sup>nd</sup> Fd., 3120 B / 3U11 BAAS				
19	Zinc(asZn)	mg/l	5	15	ND	APHA 22 <sup>nd</sup> Ed., 3120 B/ 3111 B (AAS)				
)	Nickel(asNi)	mg/l	0.03	NoRelaxation	ND	APHA 3111 (B)				
21	Chromium(asCr <sup>6+</sup> )	mg/l	0.04	NoRelaxation	ND	IS:3025(Pt-52)				
22	Alkalinity(asCaCO3)	mg/l	191	600	70	IS:3025(Pt-23)				
23	Aluminum(asAl)	mg/l	0.02	0.2	ND	APHA 22 <sup>nd</sup> Ed3120 B / 3111 B (AAS) / IS3025 (pt-55)				
24	Conductivityat25°C	mS	Not Specified	NotSpecified	231	APHA 2510				
25	Taste	•	Agrecable	Agreeable	Agreeable	IS:3025(Pt-8)				
BacteriologicalParameters										
1	Total Coliform		MPN/100ml	Shall Not Be Detectable	NotDetected(<2)	IS:1622-1981(Reaff.2003)				
2	E.coli		E.coli/100ml	Shall Not Be Detectable	Absent	IS:1622-1981(Reaff.2003)				

CHECKEBBY



#### Solid Waste Analysis report for the month of October'22 - March'23



### ITS TESTING LABORATO

Laboratory:A-114, Sector-80, Pinse-II, Noida, Gautam Buth Nagar - 20130S, (U.P.)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certifled Laboratory)
Website: www.itslab.ln, Email: lislaboratorypytitd@gmail.com, info@itslab.in,
contact@itslab.in, ittrclab@gmail.com
+91 9911659800, 93505780312, 09958849764, 07210888634

Report Code: SW-070223-02, Page 1 of 2

#### TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 070223-02

Issue Date: 11/02/2023

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgupur-713215,

Paschim Bardhaman, West Bengal, India

Sample Received On

Sample Drawn On

Sample Drawn By Sampling Location

Sample Description Job Start Date

Job Completion date

: 07/02/2023

05/02/2023

ITS Representative

Slag Dumping Yard Solid Waste (CPP)

07/02/2023

: 11/02/2023

#### TEST RESULT

S. No.	Test Parameters	Dustand De Press D	** **	Requirement / Limit As	
3, 140,	rest rarameters	Protocol By TCLP	Results	Per EPA Chapter- 7	
	1.2Dichloroethane	FULL COROCI	***	Min	Max
1.	***************************************	EPA 5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	*	10.0mg/l
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/l	+	2.0mg/l
4.	Benzene	EPA5030C	BDL(DL:0.1µg/l	le:	0.5mg/l
5.	Chloro Benzene	EPA5030C	6.2	*	100.0mg/l
5	Carbon TetraChloride	EPA5030C	BDL(DL:0.1µg/l	*	0.5mg/l
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l		0.03mg/l
8.	Chloroform	EPA5030C	BDL(DL:0.1μg/I	*	6.0mg/l
9.	1.1Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l		0.07mg/l
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l		7.5mg/l
11.	2,4.5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	-	1.0mg/l
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	*	0.13mg/l
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	-	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	+	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	**************************************	3.0mg/l
16.	Hexachlorobenzene	EPA8081A	BDL(DL:0.1µg/l	***************************************	0.13mg/l
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/l	•	200.0mg/l
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l	**************************************	10.0mg/l
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	*	200.0mg/l

Authorized Signatory



Laboratory: \(\frac{114}\), Sector-80, Phase-II, Noida, Gantam Budh Nagar - 201305. (U.P.)
An 150 2001: 2015. ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.in, Email: isflaboratorypvtltd@gmail.com, info@itslab.in,
contact@itslab.in, ittrclab@gmail.com
+93 9911659800, 93505780312, 09958839764, 07210888634

Report Code: SW-070223-02, Page 2 of 2

			response moments		.,
20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	*	200.0mg/l
21.	p-Cresol	EPA8041A BDL(DL:0.1μ		*	200.0mg/l
22.	Pyriding	By GC-MS(DCM-Etraction)	Absent	*	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0, l µg/l)	*	0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	•	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	*	0.5mg/l
26.	2,4.5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)	*	400.0mg/l
27.	Barium (as Ba)	EPA200.8	8.0	*	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)	•	1.0mg/l
29.	lotal Chromium (as Cr)	EPA200.8	0.36		5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)	M	5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	<b>ye</b>	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)	*	0.2mg/I
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)	*	0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)	*	1.0mg/l
35.	Silver (as Ag)	EPA200.8 BDL(DL:0.1µg/l) -		*	5.0mg/l
36.	Copper (as Cu)	EPA200.8 0.28 mg/l -		*	
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	•	



Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.in, Email: itslaboratorypytltd@gmail.com, info@itslab.in, contact@itslab.in, itlrclab@gmail.com

+91 9911659800,09958849764,9305780312,07210888634

Report Code: SW-071222-02, Page 1 of 2

### TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 071222-02

Issue Date: 11/12/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Received On

Sample Drawn On

Sample Drawn By

Sampling Location

Sample Description

Job Start Date

Job Completion date

: 07/12/2022

: 05/12/2022

ITS Representative

Slag Dumping Yard

Solid Waste (CPP)

: 07/12/2022

12/12/2022

### TEST RESULT

S. No.	Test Parameters Protocol By TCLP		Results	Per EPA	nt / Limit As Chapter- 7
1.	1.2Dichloroethane	EPA 5030C	TITLE (TYPE OF THE	Min.	Max.
2.	MARKET ALLERS AND ADDRESS AND		BDL(DL:0.1µg/l)	**	0.5mg/l
	2,4-D	EPA8151A	BDL(DL:0.1µg/l	-	10.0mg/l
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/l	-	2.0mg/l
4,	Benzene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
5.	Chloro Benzene	EPA5030C	5.0	m:	100.0mg/l
6.	CarbonTetraChloride	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l		0.03mg/l
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/l		6.0mg/l
9.	1,1Dichloroethylene	EPAS030C	BDL(DL:0.1µg/1	## FF	0.07mg/l
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l	*	7.5mg/l
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	*	1.0mg/l
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	*	0.13mg/l
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	p-	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	74	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent		3.0mg/l
16.	Hexachlorobenzene	EPA8081A	BDL(DL:0.1µg/l		0.13mg/l
17.	m-Cresol	EPA8041A	BDL(DL:0.1 μg/1		200.0mg/l
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l		10.0mg/l
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	22	200.0mg/l

Checked by

Authorized Signatory

erms & Coriditions Test reports are valid only for the samples tested in our laboratory 2. Samples will destroyed as per quality policy. Any conglishes about this report should be communicated in writing within 7 dBys.



taboratory: A 114, Sector-80, Phase-H. Noida, Gautam Budh Nagar. 20 (303, (U.P.)
An 13O 9001: 2015, 15O 14001:2015, 15O 45001:2018 Certified Laboratory)
Websity: www.itslab.in. Email: itslaboratorypythide gmail.com. Info'q itslab.in.
contact a itslab.in. ittrelab'w gmail.com
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Report Code: SW-071222-02, Page 2 of 2

*****	any managarity and a distribution of the contract of the contr	BOOK CONTRACTOR OF THE STATE OF		A	1
20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	*	200,0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1μg/l)	SM	200.0mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent	asy	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1μg/l)		0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	+9	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	.66	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)	**	400.0mg/l
27.	Barium (as Ba)	EPA200.8	7.1	**	100.0mg/I
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)	<**	1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.29	*	5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)	4	5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	Sec.	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0,1µg/l)	10 <b>e</b>	0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1μg/l)	**	0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)	**	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	acc	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.20 mg/l	NF.	-4
37,	Hexavalent Chromium (as Cr <sup>-6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	**	in the state of th

Checked by



Laboratory: A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888634 Website: www.itslab.in, Email: contact@itslab.in, info@itslab.in, itlrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-061022-02, Page 1 of 2

### TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 061022-02

Issue Date: 11/10/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215.

Paschim Bardhaman, West Bengal, India

Sample Received On

06/10/2022

Sample Drawn On

04/10/2022

Sample Drawn By

ITS Representative

Sampling Location

Slag Dumping Yard

Sample Description

Solid Waste (CPP)

Job Start Date

06/10/2022

Job Completion date

11/10/2022

#### TEST RESULT

S. No.	. Test Parameters Protocol By TCLP		Results	Per EPA	nt / Limit As Chapter- 7
			**************************************	Min.	Max.
1.	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1µg/l)		0.5mg/l
2.	2.4-D	EPA8151A	BDL(DL:0.1µg/l	*	10.0mg/l
3.	2.4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/1	**	2.0mg/l
4.	Benzene.	FPA5030C	BDL(DL:0.1μg/l	-	0.5mg/l
5.	Chloro Benzene	EPA5030C	5.6		100.0mg/I
6.	CarbonTetraChloride	EPA5030C	BDL(DL:0.1µg/l		0.5mg/l
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l	<b>&gt;-</b>	0.03mg/l
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/l	**	6.0mg/l
9.	1,1 Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l	*	0.07mg/l
10.	1.4Dichlorobenzenc	EPA 5030C	BDL(DL:0.1µg/l	lo-	7.5mg/l
11.	2.4.5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	**	1.0mg/l
12.	2.4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	*	0.13mg/l
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	to to to	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l
16.	Hexachlorobenzene	EPA8081A BDL(DL:0.1μg/1 -		-	0.13mg/l
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/t	_(DL:0.1μg/l -	
18.	Methoxychlor	EPA8081A	BDL(DL:0.1μg/l		10.0mg/l
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	-	200.0mg/l



## TS LABORATORY

Lattectory: A-91 Sector-80, Phase-2. Noida, Sector: Budh Nagar - 201301, 41 P) Mil 09911659800,9305780312,09958844764.07210893654
Website www.ltslab in. Email: contact@istab in info@itstab.in, it'relab@gmail.com
An ISO 9001: 2015. ISO 14001-2015. ISO 45001.2018 Certified Laboratory;

Report Code: SW-061022-02, Page 2 of 2

			,		
20).	o-Cresol	LPA8041A	BDL(DL:0.1µg/l)	· · · · · · · · · · · · · · · · · · ·	200.0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg.1)	100	200.0mg/l
3.3	Pyridine	By GC-MS(DCM-Etraction)	Absent	***	5.0mg/l
23.	Tetrachloroethy lene	EPA5030C	BDL(DL:0.1µg/l)	40	0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	994	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg·l)	*	0.5mg/l
26.	2.4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/1)	* '	400.0mg/l
27.	Barium (as Ba)	EPA200.8	6.5	/2#	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1μg/l)	40-	1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.23	*	5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)		5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1μg/l)	384	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/1)	95	0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)	My	0.2mg/l
34.	Selenium (as Se)	EPA200,8	BDL(DL:0.1μg/1)	~	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1μg/l)	249	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.15 mg/l	Page .	
37.	Hexavalent Chromium (as Cr <sup>-6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	<b>00</b>	34-

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Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.ltslab.in, Email: ltslaboratorypvtltd@gmail.com, info@itslab.in, contact@itslab.in, ittrclab@gmail.com +91 9911659800, 93505780312, 09958849764, 07210888634

Report Code: SW-070223-01, Page 1 of 2

#### TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 070223-01

Issue Date: 11/02/2023

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Received On

Sample Drawn On Sample Drawn By

Sampling Location

Sample Description

Job Start Date

Job Completion date

07/02/2023

05/02/2023

ITS Representative

Slag Dumping Yard

Solid Waste (Induction Furnace Slag)

07/02/2023

11/02/2023

#### TEST RESULT

				Requirement / Limit As	
S. No.	Test Parameters	Protocol By TCLP	Results		Chapter- 7
				Min.	Max.
1.	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	-	10.0mg/l
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/l	~	2.0mg/l
4.	Benzene	EPA5030C	BDL(DL:0.1µg/l	+	0.5mg/l
5.	Chloro Benzene	EPA5030C	4.4	#a	100.0mg/l
6.	Carbon Tetra Chloride	EPA5030C	BDL(DL:0.1µg/l	ipp .	0.5mg/l
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l		0.03mg/l
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/l	-	6.0mg/l
9.	1,1Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l	*	0.07mg/l
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l	-	7.5mg/l
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent	4.	1.0mg/l
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent		0.13mg/1
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1μg/l	-	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l
16.	Hexachlorobenzene	EPA8081A BDL(DL:0.1μg/l -		0.13mg/l	
17.	m-Cresol	EPA8041A	BDL(DL:0.1μg/1 -		200.0mg/l
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l		10.0mg/1
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent	417	200.0mg/l



Laboratory: A-114, Sector-80. Phase-11, Noida. Gautam Budh Nagar - 201305, (U.P.)
An 18O 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itstab.in, Email: itstaboratorypythtd: a gmail.com, info@itstab.in, contact@itstab.in, itlrclab/a gmail.com
+91 9911659800, 93505780312, 09958849764, 07210888634

Report Code: SW-070223-01, Page 2 of 2

20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	**	200.0mg/l
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg/l)	<b>*</b>	200.0mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent	**	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1µg/l)	**	0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	-	0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1μg/l)	eu	400.0mg/l
27.	Barium (as Ba)	EPA200.8	8.6	*	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)		1.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.32	25	5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)	<b>**</b>	5.0mg/1
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	***	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)		0.2mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1µg/l)	*	0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)	***	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	**	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.22 mg/l	**	-
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	*	*
38.	Endrin	EPA8081A	BDL(DL:0.1µg/l)		0.02mg/l
39.	Heptachlor	EPA8081A	BDL(DL:0.1µg/l)		0.008mg/l
40.	Lindane	EPA8081A	BDL(DL:0.1µg/l)		0.4mg/l
41.	Nitrobenzene	By GC-MS (Purge & Trap)	Absent	***	2.0mg/l



Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytltd@gmail.com, info@itslah.in, contact@itslab.in, itlrclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634

Report Code: SW-071222-01, Page 1 of 2

### TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 071222-01

Issue Date: 11/12/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Received On

There are Are

Sample Drawn On Sample Drawn By

Sampling Location

Sample Description

Job Start Date

Job Completion date

: 07/12/2022

05/12/2022

ITS Representative

Slag Dumping Yard

Solid Waste (Induction Furnace Slag)

07/12/2022

12/12/2022

#### TEST RESULT

S. No.	Test Parameters	Protocol By TCLP	Results	Per EPA	nt / Limit As Chapter- 7
1.	1.2Dichloroethane	EBA COOOCI	Trans (Pr. B. A. V. d.)	Min.	Max.
	······································	EPA 5030C	BDL(DL:0.1µg/l)	-	0.5mg/l
2.	2,4-D	EPA8151A	BDL(DL:0.1µg/l	<b>1</b> 00	10.0mg/l
3.	2,4,6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/l	-	2.0mg/l
4.	Benzene	EPA5030C	BDL(DL:0.1µg/l	_	0.5mg/l
5.	Chloro Benzene	EPA5030C	3.9	-	100.0mg/l
6.	Carbon Tetra Chloride	EPA5030C	BDL(DL:0,1µg/l	-	0,5mg/l
7.	Chlorodane	EPA8081A	BDL(DL:0.1µg/l	-	0.03mg/l
8.	Chloroform	EPA5030C	BDL(DL:0.1μg/l	-	6.0mg/l
9,	1,1Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l		0.07mg/l
10.	1,4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l	-	7.5mg/l
11.	2,4,5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent		1.0mg/l
12.	2,4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent		0.13mg/l
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l	*	200.0mg/l
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	-	0.5mg/l
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l
16.	Hexachlorobenzene	EPA8081A	BDL(DL:0.1µg/l	*	0.13mg/I
17.	m-Cresol	EPA8041A	BDL(DL:0.1µg/l	*	200.0mg/l
18.	Methoxychlor	EPA8081A	BDL(DL:0.1µg/l		10.0mg/l
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)	Absent		200.0mg/l

Checked by

Authorized Signatory

erms & conditions
Test reports are called with for the samples fested in our laboratory 2. Samples will gestroyed as per quality policy
Any complaints about this report should be communicated in writing within 1 gays.
Total liability of Suc Abbresity's lighted of revocal almount.



Laboratory: A-114. Sector-80. Phase-H. Noida, Gautam Budh Nagar - 201305, (U.F)
An ISO 9001: 2015. ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.in, Email: itslaboratorypytitd@gmail.com, info@itslab.in,
contact@itslab.ia, ittrelab@gmail.com
+91 9041659300.09958849764,9305780312,07210888634

Report Code: SW-071222-01, Page 2 of 2

			err part water		,
20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	žo.	200.0mg/l
21.	p-Cresoi	EPA8041A	BDL(DL:0.1µg/l)	*	200.0mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent	*	5.0mg/l
23.	Tetrachloroethylene	EPA5030C	BDL(DL:0.1µg/l)	144	0.7mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent		0.5mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1μg/l)	PY	0.5mg/l
26.	2,4,5Trichlorophenol	EPA8081A	BDL(DL:0.1µg/l)		400.0mg/l
27.	Barium (as Ba)	EPA200.8	7.2	<b>14</b>	100.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1μg/l)		1.0mg/l
29.	Total Chromium (as Cr)	EPA200,8	0.23	Ris	5.0mg/l
30.	Lead (as Pb)	EPA200.8	BDL(DL:0.1µg/l)		5.0mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	=	5.0mg/l
32.	Vinyl Chloride	EPA5030C	BDL(DL:0,1µg/l)	<b>44</b>	0.2mg/l
33.	Mercury (as Hg)	EPA200,8	BDL(DL:0.1µg/l)	és	0.2mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1µg/l)	por	1.0mg/l
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	2 <b>4</b> 0	5.0mg/l
36.	Copper (as Cu)	EPA200.8	0.16 mg/l	tad	
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)	244	<b>1</b>
38.	Endrin	EPA8081A	BDL(DL:0.1µg/l)	PRO	0.02mg/l
39.	Heptachlor	EPA8081A	BDL(DL:0.1µg/l)	**	0.008mg/l
40.	Lindane	EPA8081A	BDL(DL:0.1µg/l)	W3	0.4mg/l
41.	Nitrobenzene	By GC-MS (Purge & Trap)	Absent	м.	2.0mg/l

Checked-by



# ITS LABORATORY

Laboratory:A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P)
M.: 09911659800,9305780312,09958849764,07210888634
Website: www.itslab.in, Emall: contact@itslab.in, info@itslab.in, itlrclab@gmail.com

absite: www.itslab.in, Emall: contact@itslab.in, info@itslab.in, ittrclab@gmail.com An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)

Report Code: SW-061022-01, Page 1 of 2

### TEST REPORT

Solid Waste Sample analysis

Report Code: SW: 061022-01

Issue Date: 11/10/2022

Issued To

: M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Received On

Sample Drawn On

Sample Drawn On Sample Drawn By

Sampling Location

Sample Description

Job Ŝtart Date

Job Completion date

: 06/10/2022

: 04/10/2022

ITS Representative

Slag Dumping Yard

: Solid Waste (Induction Furnace Slag)

06/10/2022

: 11/10/2022

### TEST RESULT

S. No.	Tank Name and and	N.,	:	Requirement / Limit As		
3.140.	Test Parameters	Protocol By TCLP	Results	***************************************	Chapter- 7	
t	1 200	775 1 80600		Min.	Max.	
l .	1.2Dichloroethane	EPA 5030C	BDL(DL:0.1μg/l)	-	0.5mg/l	
2.	2.4-D	EPA8151A	BDL(DL:0.1μg/l		10.0mg/l	
3.	2,4.6Trichlorophenol	EPA8041A	BDL(DL:0.1µg/I	**	2.0mg/l	
4.	Benzene	EPA5030C	BDL(DL:0.1µg/l		0.5mg/l	
5.	Chloro Benzene	EPA5030C	3.2	*	100.0mg/l	
6,	Carbon Tetra Chloride	EPA5030C	BDL(DL:0.1µg/l	**	0.5mg/l	
7.	Chlorodane	EPA8081A	BDL(DL:0.1μg/l	*	0.03mg/l	
8.	Chloroform	EPA5030C	BDL(DL:0.1µg/l	-	6.0mg/l	
9.	l, l Dichloroethylene	EPA5030C	BDL(DL:0.1µg/l	4	0.07mg/1	
10.	1.4Dichlorobenzene	EPA 5030C	BDL(DL:0.1µg/l		7.5mg/l	
{   ,	2.4.5 TP (Silvex)	By GC-MS(DCM-Etraction)	Absent		1.0mg/l	
12.	2.4 Dinitrotoluene	By GC-MS(DCM-Etraction)	Absent	p	0.13mg/l	
13.	Cresol (Total)	EPA8041A	BDL(DL:0.1µg/l		200.0mg/l	
14.	Hexachlorobutadiene	EPA5030C	BDL(DL:0.1µg/l	nd	0.5mg/l	
15.	Hexachloroethane	By GC-MS(DCM-Etraction)	Absent	-	3.0mg/l	
16.	Hexachlorobenzene	EPA8081A	EPA8081A BDL(DL:0.1μg/I		0.13mg/l	
17,	m-Cresol	EPA8041A	BDL(DL:0.1µg/l -		200.0mg/l	
18.	Methoxychlor	EPA8081A	BDL(DL:0.1μg/l		10.0mg/l	
19.	Methyl Ethyle Ketone	By GC-MS(DCM-Etraction)			200.0mg/l	



Authorized Signatory

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## TS LABORATORY

Laboratory;A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar - 201301, (U.P) M.; 099)1659800.9305780312,09958849764.07210888634

Website; www.itslab.in, Email: contact@itslab.in, info@itslab.in, ittrclab@gmail.com
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Report Code: SW-061022-01, Page 2 of 2

		(Purge & Trap)			
41.	Nitrobenzene	By GC-MS	Absent	<b>*</b>	2.0mg/l
40.	Lindane	EPA8081A	BDL(DL:0.1µg/l)	en e	0.4mg/l
39.	Heptachlor	EPA8081A	BDL(DL:0.1µg/l)	24	0,008mg/l
38.	Endrin	EPA8081A	BDL(DL:0.1μg/l)	**	0.02mg/l
37.	Hexavalent Chromium (as Cr <sup>+6</sup> )	By GC-MS/EPA	BDL(DL:0.5mg/kg)		-
36.	Copper (as Cu)	EPA200.8	0.12mg/l		-
35.	Silver (as Ag)	EPA200.8	BDL(DL:0.1µg/l)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5.0mg/l
34.	Selenium (as Se)	EPA200.8	BDL(DL:0.1μg/l)	ен	1.0mg/l
33.	Mercury (as Hg)	EPA200.8	BDL(DL:0.1μg/l)	<b>6</b>	0.2mg/1
32.	Vinyl Chloride	EPA5030C	BDL(DL:0.1µg/l)		0.2mg/l
31.	Arsenic (as As)	EPA200.8	BDL(DL:0.1µg/l)	49	5.0mg/l
30.	Lead (as Pb)	EPA200.8 ·	BDL(DL:0.1µg/l)	4	5.0mg/l
29.	Total Chromium (as Cr)	EPA200.8	0.17	***	5.0mg/l
28.	Cadmium (as Cd)	EPA200.8	BDL(DL:0.1µg/l)	***	1.0mg/l
27.	Barium (as Ba)	EPA200.8	7,9	**	100.0mg/l
26.	2.4,5Trichlorophenol	EPA8081A	BDL(DL:0,1μg/l)	.9	400.0mg/l
25.	Trichloroethylene	EPA5030C	BDL(DL:0.1µg/l)	144	0.5mg/l
24.	Toxaphene	By GC-MS(DCM-Etraction)	Absent	73d	0.5mg/l
23.	Tetrachloroethylene	EPA5030C	EPA5030C BDL(DL:0.1µg/l)		0.7mg/l
22.	Pyridine	By GC-MS(DCM-Etraction)	Absent		5,0mg/I
21.	p-Cresol	EPA8041A	BDL(DL:0.1µg/l)	**	200.0mg/l
20.	o-Cresol	EPA8041A	BDL(DL:0.1µg/l)	34 	200.0mg/l

Cheefeed by



Noise Level Monitoring report for the month of October'22 - March'23



Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.ln, Email: itslaboratorypytild@gmail.com, info@itslab.in,
confact@itslab.in, ltirclab@gmail.com
+91 9911659800,09958849764,8305780312,07210888634



#### TEST REPORT

Ambient Noise Analysis

Report Code: N-080223-02

Issue Date: 11/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

05/02/2023 To 06/02/2023

Sample Drawn By

ITS Representative

Sample Received On

08/02/2023

Sample description

Ambient Noise Near DRI Gate

Sampling Location Sampling Duration

24 hours

Analysis Duration

08/02/2023 To 11/02/2023

		T	EST RESU	LTS		
S. No Test Parameters Results Units Requirement (as per CPCB Guideline Limits indB(A) Leq						
1,	Equivalent Noise Level (6.0 Am To	51.6	dΒ(Λ)	Category of Area/ Zone	Day Time	Night Time
w(************************************	10.0 Pm) Equivalent Noise	***************************************	maga diga s gang nggangkaninan nakyaingning gi kalakki	Industrial Area	75	70
2.	Level (10.0 Pm To 6.0 Am)	34.8	dB(A)	Commercial Area	65	55
3.	Lmax	57.2	dB(A)	Residential Area	55	45
4.	Lmin	30.0	dB(A)	Silence Zone	50	40

**LSIGNATORY** 



## ITS TESTING LABORATORY

Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.) An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytltd@gmail.com, info@itslab.in, contact@itslab.in, itirclab@gmail.com +91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

Ambient Noise Analysis

Report Code: N-081222-02

Issue Date: 12/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

05/12/2022 To 06/12/2022

Sample Drawn By

ITS Representative

Sample Received On

08/12/2022

Sample description

Ambient Noise

Sampling Location

Near DRI Gate

Sampling Duration

24 hours

Analysis Duration

08/12/2022 To 12/12/2022

		T	EST RESU	LTS	***************************************			
S. No	Test Parameters	Results			nent (as per CPCB Guidelines Limits indB(A) Leq			
1.	Equivalent Noise Level (6.0 Am To	49.2	dB(A)	Category of Area/ Zone	Day Time	Night Time		
	10.0 Pm)		***************************************	Industrial	75	70		
2.	Equivalent Noise Level (10.0 Pm To 6.0 Am)	33.0	dB(A)	Area Commercial Area	65	55		
3.	Lmax	56.6	dB(A)	Residential Area	55	45		
4,	Lmin	28.3	dB(A)	Silence Zone	50	40		

AUTHORIZED SIGNATORY



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#### TEST REPORT

#### Ambient Noise Analysis

Report Code: N-081022-02

Issue Date: 12/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Augadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On

Sample description

Sampling Location

Sampling Duration

Analysis Duration

05/10/2022 To 06/10/2022

ITS Representative

08/10/2022

Ambient Noise

Near DRI Gate

24 hours

08/10/2022 To 12/10/2022

		Can'	EST RESU	LTS		
S. No	Test Parameters	i .	Units dB(A)	Requirement (as per CPCB Guidelines Limits in dB (A) Leq		
1.	Equivalent Noise Level (6.0 Am To			Category of Area/ Zone	Day Time	Night Time
	10.0 Pm)			Industrial	75	70
	Equivalent Noise	32.3	dB(A)	Area		·
2.	Level (10.0 Pm To 6.0 Am)			Commercial Area	65	<b>5</b> 5
3.	Lmax	55.9	dB(A)	Residential Area	55	45
<i>د</i> ا.	Lmin	27.8	dB(A)	Silence Zone	50	40

samples tested in our laboratory. 2. Samples will destroyed after 30 days from the date of issue of the test 3. Any complaints about this report should be communicated in writing within 7 days of this report.



Laboratory: A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
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+91 9911659800,09958849764,9305780312,07210888634



#### TEST REPORT

**Ambient Noise Analysis** 

Report Code: N-070223-01

Issue Date: 11/02/2023

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur- 713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On

Sample description

Sampling Location

Sampling Duration

Analysis Duration

05/02/2023 To 06/02/2023

ITS Representative

: 07/02/2023

: Ambient Noise

Near Main Gate

24 hours

: 07/02/2023 To 11/02/2023

		T	EST RESU	LTS		
S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guidelines Limits indB(A) Leq		
1,	Equivalent Noise Level (6.0 Am To	55.8	dB(A)	Category of Area/ Zone	Day Time	Night Time
	10.0 Pm)		**********************************	Industrial	75	70
	Equivalent Noise			Area		
2.	Level (10.0 Pm To 6.0 Am)	38.2	dB(A)	Commercial Area	65	55
3.	Lmax	60.1	$dB(\Lambda)$	Residential Area	55	45
4.	Lmin	32.5	dB(A)	Silence Zone	50	40

CHECKED BY

AUTHORIZED SIGNATORY

Any complaints about this report should be continuent area in return a number of

Total liability of our laboratory is limited to involced amount



## ITS TESTING LABORATORY

i binoratory: v. Ud. Sector-80, Phase-II, Noida, Gaptaer Buth Nagar / 10 (303, (U.P.) Ap 18() 9001, 2015, ISO 14001;2015, ISO 45001;2018 Certified Laboratory) Website: www.itslab.in, Email: itslaboratorypytitcha gmail.com, info@itslab.in, confactée itslab.in, itirclab@gmail.com +91 9911659800,09958849764,9305780312,07210868634



#### TEST REPORT

**Ambient Noise Analysis** 

Report Code: N-071222-01 Issue Date: 11/12/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

05/12/2022 To 06/12/2022

Sample Drawn By

ITS Representative

Sample Received On

07/04/2022

Sample description

Ambient Noise

Near Main Gate

Sampling Location Sampling Duration

24 hours

Analysis Duration

07/12/2022 To 12/12/2022

,		T	EST RESU	LTS		the state of the s		
S. No	Test Parameters	Results	Units		Requirement (as per CPCB Guidelines Limits indB(A) Leq			
1.	Equivalent Noise Level (6.0 Am To	54.0	dB(A)	Category of Area/ Zone	Day Time	Night Time		
ygggy gownewn war on an arman arm	10.0 Pm)		***************************************	Industrial	75	70		
	Equivalent Noise			Area				
2.	Level (10.0 Pm To 6.0 Am)	35.5	dB(A)	Commercial Area	65	55		
3.	Lmax	58.4	dB(A)	Residential Area	55	45		
4.	Lmin	31.6	dB(A)	Silence Zone	50	40		

**AUTHORIZED SIGNATORY** 



Laboratory, A-91, Sector-80, Phase-2, Noida, Gautam Budh Nagar 201301, (U.P) M.: 09911659800,9305780312,09958849764,07210888631 Websiter www.itslab.in, Email: contact@itslab.in, info@itslab.in, ittrclab@gmail.com

An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)



### TEST REPORT

**Ambient Noise Analysis** 

Report Code: N-061022-01

Issue Date: 11/10/2022

Issued To:

M/S. Shyam Steel Industries Ltd.

Raturia Industrial Area, Angadpur, Durgapur-713215,

Paschim Bardhaman, West Bengal, India

Sample Drawn On

Sample Drawn By

Sample Received On

Sample description

Sampling Location

Sampling Duration

**Analysis Duration** 

04/10/2022 To 05/10/2022

ITS Representative

06/04/2022

**Ambient Noise** 

Near Main Gate

24 hours

06/10/2022 To 11/10/2022

		T'	EST RESU	LTS		**************************************	
S. No	Test Parameters	Results	Units	Requirement (as per CPCB Guideli Limits indB(A) Leq			
1.	Equivalent Noise Level (6.0 Am To	53.2	dB(A)	Category of Area/ Zone	Day Time	Night Time	
	10.0 Pm)  Equivalent Noise			Industrial Area	75	70	
2.	Level (10.0 Pm To 6.0 Am)	34.9	dB(A)	Commercial Area	65	55	
3.	Lmax	57.7	dB(A)	Residential Area	55	45	
4.	Lmin	31.1	dB(A)	Silence Zone	50	40	

GNATORY