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Ref: NML-DGP/ENV/23/029

Date- 28/11/2023

To,

The 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 Report (Apr'2023 to Sept'2023) of Neo Metaliks Ltd., Durgapur- 713212, West Bengal.

Ref: Environment Clearance No. J-11011/779/2007-IA II (I) dated 02.06.2022.

Dear Sir,

This is reference to the subject cited above; we are enclosing herewith six-monthly compliance report (April'23 to September'23) of the above environmental clearance conditions in Annexure-A along with the external agency monitoring reports and submitting the soft copy (pdf format) of the same through mail.

This is for your kind information.

Yours faithfully,

For Neo Metaliks Ltd. MET **Authorized Signatory** Durga

Authorized Signat

Encl: As above

Cc:

- 1. The Member Secretary, West Bengal Pollution Control Board, Paribesh Bhawan, Bldg. No. 10A, Block-LA, Sector-III, Bidhannagar, Kolkata-700098
- 2. The Environment Engineer (In-Charge), West Bengal Pollution Control Board, (Government of West Bengal), City Centre, Durgapur- 713216.

**Name of the Project:** Expansion and Upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA Capacity and Inclusion of SMS, Neo Metaliks Ltd., Gopalpur, Durgapur.

Environmental Clearance File No. J-11011/779/2007-IA.II (I) dated 02.06.2022

Period of Compliance Report: April'2023 to September'2023

Sr. no.	A. Specific Conditions	Compliance Status		
A (i)	As submitted by PP, a pond (7157 m2) is present within the project site, which will be used as a rainwater reservoir. PP shall monitored and submit the Report to the IRO, MoEFCC in this regard.			
A (ii)	Three tier Green Belt shall be developed in 36% of total project area by end of monsoon, 2022 with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. In addition to this, PP shall be undertaken plantation (total plants 5000 nos.) in the surrounding villages. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concern Regional Office of the MoEF&CC.	<ol> <li>Green belt development is our ongoing activity. Extensive tree plantation is being carried out every year in all open spaces available in and around the plant premises.</li> <li>As on 30.09.2023, a total of 30,323 nos. of saplings have been planted with native species covering 34.7% area. Another 2500 nos. of saplings are going to be planted which would cover a total greenbelt area of more than 36%.</li> </ol>		

Sr. no.	A. Specific Conditions	Compliance Status
A (iii)	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.	Plant internal roads, vehicle movement areas and workplaces are developed with concreted/pavered and landscaping for horticulture development is being carried out. Greenery has been developed along the roadside and in open unused areas. We've obtained Consent to Established (CTE) from WBPCB vide memo no. 393-2N-566/2003-PART-I dated 25.07.2022. So, construction of more roads shall be done in a phase wise manner during expansion activity. As on date, construction of 170 mtr internal RCC road is being initiated. The order copy is enclosed as Annexure- II.
A (iv)	PP shall install three Continuous Ambient Air Quality Monitoring Station (CAAQMS) as one in upstream, one in the down-stream and one at the cross-wind direction by end of July, 2022.	Three locations for CAAQMS have been identified - one in upstream, one in down-stream and one in crosswind direction. Orders have been placed and work is in progress. The work order copy is enclosed as Annexure-III. In addition to this, five ambient air quality monitoring stations (AAQMS) have been established at given locations inside the plant, namely 1. Near Main Gate, 2. Near Admin Building & Store, 3. Near Boundary Wall (North-East side), 4. Near CPP Cooling Tower and 5. Near PCM side boundary wall. Ambient air quality monitoring is being carried out on a bimonthly basis by NABL accredited external agency. Data of ambient air quality is being submitted regularly through Half-yearly compliance report. The monitoring reports are enclosed as Annexure IV.
A (v)	PP shall provide RO plant as tertiary treatment facility to ensure reuse of treated wastewater to an extent of 700 KL.	At present, treated wastewater is being reused inside the plant. RO plant as tertiary treatment facility will be installed post commissioning of STP & ETP. For Primary & Secondary treatment plant, work is under progress.
A (vi)	12 numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere. PP shall do plantation work in the surrounding villages also.	The procurement process of 06 nos. of Fog/Mist water cannons has been completed. Order copy attached as Annexure- V. Installation work is under progress. Balance 06 nos. of truck mounted Fog/Mist water cannons are going to be ordered in a phase-wise manner. Operation of existing 01 no. of Fog/Mist water cannons is being ensured regularly inside the project premises. Plantation work- 100 nos. of saplings have been planted in the surrounding villagers' home attached as Annexure- 1 (b).

Sr. no.	A. Specific Conditions	Compliance Status
A (vii)	Following additional arrangements to control fugitive dust shall be provided: a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas. b. Proper covered vehicle shall be used while transport of materials. c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.	<ul> <li>Following additional arrangements have been provided to control fugitive dust.</li> <li>a. Water sprinkling system (fixed and mobile type) has been provided at raw material handling yard, unloading point and other vulnerable points. Along with water fog cannon has been installed and operated at raw material handling sections.</li> <li>b. All the raw Materials like Iron ore lump &amp; fines, flux and coke &amp; coke Fines are kept covered with Tarpaulin. All the Vehicles enter Plant-site are regularly checked for PUC compliance certificates (exhaust emission) and vehicles with valid PUC certificate is only allowed inside the Plant.</li> <li>c. At present, our entry and exit gate is common. So, provision for one Wheel washing mechanism with complete recirculation system has been initiated near main gate and will be updated in next half yearly compliance report.</li> </ul>
A (viii)	All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.	Noted
A (ix)	Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.	We've obtained Consent to Established (CTE) from WBPCB vide memo no. 393-2N-566/2003-PART-I dated 25.07.2022. So, installation of all pollution control systems is under establishment phase. However, Performance test is being conducted on existing pollution control systems vide order no. 3322000173 and test report is enclosed as Annexure- VI.
A (x)	Particulate matter emission from stacks shall be less than 30 mg/Nm3.	Noted & agreed to comply. We've granted Consent to Establish (CTE) from WBPCB vide memo no. 393- 2N-566/2003-PART-I dated 25.07.2022. So, our project is under the establishment phase. The CTE copy is enclosed as Annexure-VII. We will install adequate APC system to achieve limits post obtaining CTO.
A (xi)	Blast Furnace shall be equipped with dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.	Order has been placed for installation and commissioning of Dry Gas Cleaning Plant with complete package which costs USD 1,100,000. The order copy is enclosed as Annexure-VIII.

Sr. no.	A. Specific Conditions	Compliance Status
A (xii)	Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.	
A (xiii)	85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or BF gas as a fuel.	This shall be complied during installation of steel plant within plant premises.

Sr. no.	B. General Conditions	Compliance Status
B. I (i)	The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.	
B.II (i)	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as three Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.	<ol> <li>To monitor stack emission, 24x7 continuous emission monitoring system (CEMS) have been installed at process stacks like Sinter Plant, Blast Furnace Stove &amp; Captive Power Plant and real time online data is being transmitted to SPCB &amp; CPCB Server.</li> <li>The CEMS online analyzers are calibrated regularly from time to time. The calibration certificate is enclosed as Annexure-IX.</li> <li>Moreover, Stack emission monitoring is also being carried out by NABL accredited laboratory on a bi-monthly basis. The monitoring report is enclosed as Annexure-X.</li> <li>For installation of three Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters, order has been placed and work is in progress. The order copy is enclosed as Annexure-III.</li> </ol>

Sr. no.	B. General Conditions	Compliance Status
		5. Project is in Establishment phase. Prior to operate, CAAQMS will be installed & connected to SPCB and CPCB online servers.
B.II (ii)	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Fugitive emissions are being regularly monitored in the plant premises (at work environment) by NABL accredited laboratory on a bi-monthly basis. Testing report is enclosed as Annexure-XI.
B.II (iii)	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	<ol> <li>An Appropriate Air Pollution Control (APC) system has been provided at the Sinter Plant (SP) &amp; MBF cast house. Exhaust gases from SP head- end and tail-end is cleaned through ESPs to get stack emission under prescribed standard. Blast Furnace gas is cleaned through Gas Cleaning Plant comprises of dry dust catcher, saturator, and venturi scrubbers to control emission. Plan for installation of a higher capacity fume exhaust system is under progress and is being taken care of during MBF upgradation project.</li> <li>Plant de-dusting system i.e., collection of fugitive emissions through suction hood &amp; duct line and subsequent treatment through bag filters are provided to control fugitive dust. To improve the effectiveness, some modification works also been explored and being executed vide order no. 3522000837 and attached as Annexure—XII</li> <li>Further, Specific measures like Fixed Water Sprinkler, Water Fog Cannon etc. provided in Ground Hopper, Raw Material handling area, Truck Tippler etc. Mobile Water Tanker deployed inside &amp; outside plant premises for water sprinkling on roads.</li> <li>All the conveyors and transfer points have been enclosed to reduce secondary fugitive emission.</li> <li>Plant internal roads, vehicle movement areas and workplaces are developed as either concreted or pavered and cleaned at regular intervals. The cleaned process dust particles are being collected and re- used in the Sinter process plant. All the raw materials like Iron ore lump &amp; fines, flux and coke &amp; coke Fines are kept covered with Tarpaulin.</li> </ol>

Sr. no.	B. General Conditions		Con	npliance Status	
		compliance ce certificate is o Stack emissions process stacks	ertificates (exhau nly allowed insid s & Fugitive emi & work enviro pi-monthly basis.	ust emission) and vel e the Plant. ssions are being regu onment respectively	ly checked for PUC nicles with valid PUC larly monitored at all by NABL accredited enclosed as Annexure-
B.II (iv)	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	out at regular have been pro	intervals. Auto-	purging system for l er leakage detection	bags is being carried bag cleaning facilities system shall also be
B.II (v)	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.	nd such Iron ore fines, coke fines and flue dust collecter vacuum control devices are reused in Sinter Plant.			from the pollution
		Period		То	tal
			Fines	Generation (MT)	Re-used/Recycled. (MT)
		Apr'23 to Sept'23	Iron Ore	12172.06	8183.32
		566725	Coal & Coke	2931.03	3413.12 (including previous stock)
			Flue dust	1826.00	1002.03
B.II (vi)	The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.		ortation of raw e fines are being		re lump & fines, flux

Sr. no.	B. General Conditions	Compliance Status
B.II (vii)	The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.	A fume extraction system has been installed in blast furnace cast house. To improve effectiveness, modification work is under progress vide work order no. 3522000837. The order copy is enclosed as Annexure—XII.
B.II (viii)	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	Adequate air ventilation arrangements in the buildings exist.
B. III	Water quality monitoring and preservation	
B.III (i)	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.	At present, sanitary effluent is treated in septic tanks and soaks pits. Canteen waste is treated in an Oil water separator and then used for plantation. We've obtained Consent to Established (CTE) from WBPCB vide memo no. 393-2N-566/2003-PART-I dated 25.07.2022. Our project is in establishment phase.
B.III (ii)	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Ground Water Quality is being regularly monitored in the plant by NABL accredited laboratory. The pre & post monsoon Testing reports are enclosed as Annexure-XIII.
B.III (iii)	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	75 KLD Sewage Treatment Plant is going to be installed & commissioned prior to completion of expansion project activities.
B.III (iv)	The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31 <sup>st</sup> March 2012 (applicable to IF/EAF) as amended from time to time.	Rolling mills are not yet established. The ETP will be provided for effluents of rolling mills prior to commissioning of rolling mill to meet the standards prescribed in G.S.R 277 (E) 31 <sup>st</sup> March 2012 (applicable to IF/EAF) as amended from time to time.

Sr. no.	B. General Conditions	Compliance Status
B.III (v)	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.	Garland drains and collection pits are provided to arrest the run-off water in the event of heavy rains. A pond (7157 m2) is present within the project site. After connecting with surface run-off water drain, water samples shall be collected and monitored regularly. The report will be submitted in the next half yearly compliance report.
		<ul> <li>Apart from above, we have made four roof-top rainwater harvesting reservoirs of capacities 40m<sup>3</sup>, 30m<sup>3</sup>, 15m<sup>3</sup> and 11.25m<sup>3</sup> respectively at the following locations-</li> <li>CPP cooling tower area sump.</li> <li>Sinter plant pump house area sump.</li> <li>Rainwater harvesting sump at MBF area.</li> <li>Rainwater harvesting sump near Admin building.</li> <li>and the harvested rainwater is being used in process, plantation, dust</li> </ul>
		suppression and indirect cooling applications wherever possible. We have augmented the existing Sumps where runoff within the plant is collected. This water is being utilized in the plant for cooling and dust suppression during lean season.
B.III (vi)	Tyre washing facilities shall be provided at the entrance/exit of the plant gates.	At present, our entry and exit gate is common. So, provision for one Wheel washing mechanism with complete recirculation system has been proposed in FY 2023-24 near main gate location and will be updated in next half yearly compliance report.
B. IV	Noise monitoring and prevention	
B.IV (i)	Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	The noise quality is being monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 by NABL accredited laboratory on bi- monthly basis. The monitoring reports are enclosed as Annexure- XIV.

Sr. no.	B. General Conditions	Compliance Status
B. V	V Energy Conservation measures	
B.V (i)	Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.	Roof Top Solar Photovoltaic (SPV) Power System of 10 KWp capacity has been installed at roof-top of New Admin Building. The snapshot & order copy is enclosed as Annexure- XV. In addition to this, old halogen/mercury lights are being replaced with LED lights progressively at various locations in phase-wise manner.
B. VI	Waste Management	
B.VI (i)	Used refractories shall be recycled.	During the period of Apr'23 to Sept'23, no Broken refractories mass generated.
B.VI (ii)	Kitchen waste shall be composted or converted to biogas for further use.	Kitchen Waste composting machine is installed near canteen. The bio- compost is utilized in gardening, vegetation, and plantation activities. A total of 1069 Kg compost is being generated from 1549.58 Kg of food waste & utilized as manure during the period Apr'23 to Sept'23.
B. VII.	Green Belt	
B.VII (i)	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.	The study on GHG emissions inventory including carbon sequestration with respect to project expansion phase, has been carried out. The detailed report is enclosed as Annexure- XVI.
B.VII (ii)	Project proponent shall submit a study report on De-carbonization program, which essentially consists of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.	We've been granted Consent to Established (CTE) from WBPCB vide memo no. 393-2N-566/2003-PART-I dated 25.07.2022. So, the project is under the establishment phase. Hence, a study on De-carbonization program has been carried out and the detailed study report is enclosed as Annexure- XVI.

Sr. no.	B. General Conditions	Compliance Status		
B. VIII	ublic hearing and Human health issues			
B.∨III (i)	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Our existing plant is ISO 45001 & ISO:14001 certified organization. Hence, Emergency preparedness plan is prepared based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan & is being implemented. Emergency preparedness & Response Plan is enclosed as Annexure-XVII.		
B.∨III (ii)	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	The workmen who work in high temperature work zone have be		
B.VIII (iii)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	Occupational Health Surveillance of the workers is being carried out on a regular basis as mandatory by The Factories Act, 1948 and the records are being maintained. Last Occupational health surveillance of the workers is being conducted on Dt. 29.03.2023.		
B. IX	Environment Management			
B.IX (i)	The project proponent shall comply with the provision contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt Hattala, Bascopa, Rajbandh, Bandra, Gopalpur, Gosaidanga, Chataldanga, Monarkonda, Rupganja, and Kuldia villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.	Is being complied. As part of Corporate Environment Responsibility (CER) activity, the socio- economic development/ community developmental activities are being carried out by the company.		

Sr. no.	B. General Conditions	Compliance Status
B.IX (ii)	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	As our organization is ISO:14001 & 45001 certified, so well-defined Environmental is there. The copy is enclosed as Annexure-XVIII and submitted to the MoEF&CC as a part of six-monthly report.
B.IX (iii)	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Noted
B.X (i)	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	The Environment Clearance letter is advertised in two local newspapers. Viz. The Times of India and The Ei Samay (vernacular daily) on Dt. 08.06.2022. The clip of advertisement is enclosed as Annexure-XIX.
B.X (ii)	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	The copies of the environmental clearance have been submitted to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government. Received copies are enclosed as Annexure-XX.
B.X (iii)	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis	Noted. The status of compliance of the stipulated environment clearance conditions, including results of monitored data are being uploaded on our website on half-yearly basis.

Sr. no.	B. General Conditions	Compliance Status
B.X (iv)	The project proponent shall monitor the criteria pollutants level namely; $PM_{10}$ , $SO_2$ , $NO_x$ (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Environmental data on $PM_{10}$ , $SO_2$ , $NO_x$ (ambient levels as well as stack emissions) have been monitored bi-monthly through NABL accredited laboratory and uploaded in company web site through half yearly compliance report and data displayed near main gate of the company.
B.X (v)	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal	Six-monthly reports on the status of the compliance of the stipulated environmental conditions is being submitted to MoEF&CC / WBPCB and on the website of the ministry of Environment, Forest, and Climate Change at environment clearance portal on regular basis. The last report was submitted on Dt. 31.05.2023 for the period October'2022 to March'2023. The Six-monthly report for the period April'23 to September'23 will be submitted on the website of the ministry of Environment, Forest, and Climate Change at environment clearance portal within the due date.
B.X (vi)	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company	Is being complied. The environmental statement for FY 2022-23 has been submitted in Form-V to WBPCB and put on the website of the company.
B.X (vii)	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project	Noted. We've been granted Consent to Established (CTE) from WBPCB vide memo no. 393-2N-566/2003-PART-I dated 25.07.2022. So, the project is under the establishment phase. Land development works for Sinter Plant, Power plant & MBF upgradation work have been started inside plant premises.
B.X (viii)	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Noted & Compliance assured.

Sr. no.	B. General Conditions	Compliance Status
B.X (ix)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	EC granted for Expansion & upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA Capacity vide file no. J-11011/779/2007-IA.II (I) dated 02.06.2022. However, further expansion or modifications in the plant will be carried out only after prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
B.X (x)	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986	Noted
B.X (xi)	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
B.X (xii)	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted
B.X (xiii)	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Noted. Full co-operation will be extended.
B.X (xiv)	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted

2 Signature





Annexure-1 (a)

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# SERVICE ORDER

PO.N	lumber : 33	22000386							Date : 23.	09.2022
Baro Bheo BAR State GST	Is of service Maa Enterp lia P.O. Aush DHAMAN Name : Wes Name : Wes N : 19BRQP act Details :	rise gram it Bengal Stat	: 19	Your re Our Re RFQ N Contac	Other References Your reference : / Our Reference : / RFQ Number : Contact Person : Contact Number:					
Service provider address Baro Maa Enterprise Bhedia P.O. Aushgram BARDHAMAN State Name : West Bengal StateCode : 19 GSTIN : 19BRQPR4549P1ZI PAN : Contact Details :			Neo M GOPA DURG State N GSTIN	Billing To Address Neo Metaliks Limited GOPALPUR DURGAPUR 713212 State Name : West Bengal StateCode : 19 GSTIN : 19AABCN8514G1ZE PAN : AABCN8514G						
Sr. No.	Item Code	Description	Unit	HSN / SAC	Ref.No	Quantity	Price / Unit	Dis %	Dis. Amt.	Amount
1		SAPLING INSTALLATION & MANURING		0,10				0.00		1,600,000.00
	1					ļ			T @ 9.00 % T @ 9.00 %	,
Above	e service line	contains below services : - SAPLING INSTALLATION & MANURING	NOS	0		8,000.000	200.00			1,600,000.00
In wo	ords : Rupees \$	Sixteen Lakh only					Val.Excl.	Tax		1,600,000.00
In wo	ords : Rupees I	Eighteen Lakh Eighty Eight Tho	ousand c	only			Order Va	alue		1,888,000.00
Gener	Terms & Conditions : -       If You have to mobilize after receiving the W.O. as per instruction of NEO in charge         2.Necessary manpower, tools, tackles to be carry out the job is in your scope.       3. You will provide a dedicated mobile phone to your Site-in-charge at site and he must response whenever called.         4. Material shifting from Store to site and site to store will be in your scope       5. Jointly signed Reconciliation sheet will be submitted alongwith the bill for release of payment.         6. Power and Water will be supplied at one point you will make your own arrangement for your requirement.       7. You have to take care of all safety aspects of your employees working at site.         8. You have to follow all safety norms and ensure all kind of safety to your workers and supervisors.       9. You are liable to follow all necessary rules and regulation under law of land e.g. Factory Acts, Labour Acts etc.         10. In the event of any claim or demand being made on us as a consequent of any act deed or thing done by you in the course of executing the work, you will be liable for all payments, maintenance etc. to the worker / worker's family as per the statuary rules in force in the state or the country as a whole.         11. If any accident occurs during the work, you will be liable for all payments maintenance coverage and the certificate of which to be submitted before execution of work. Those who are not covered under ESI / Workmen Compensation Insurance and any liability occur to NML the same will be realized from you.         13. All Statutory liabilites will be in your scope.       14. Other existing not rules went here shall be applicable as per prevailing rules of NML.									uirement. s. abour Acts etc. ng done by you in the worker / overnment rules. ge and the
Scope of Work         SCOPE OF WORK MAINTENANCE OF           1.Alignment of Planting lines and stakin         2. Digging of planting pit of size (0.60+0)           3. Pit Filling and Application Pulversised         4. Application of NPK as per does press           5. Transplanting of potted seeding in pit recarriage of Root Traines to local store						id initial clean 5cm at a spac nanure, neem t.	ing of 1.5 mtr oil cake.	• x 1.5 m	tr (4000 Nos	).
	SHEULI MUKI	HERJEE								
	Prepared B								Approved	Ву
NOTE :	Your general co	order number, Unit of Measurement anditions of sale/services are not ap tration number should be quoted in as will be accepted only against sub	blicable to	ous.		allan/invoice fo	r taster paymen	it.		



Park Plaza,71 Park Street, 6F , North Block,Kolkata Pin - 700016 Tel : 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CIN No : U27109WB2003PLC097231

# PURCHASE ORDER

PO.N	lumber : 35	22000701								Date : 24.	09.2022
Baro Bhec BAR State GST	Is of supplie Maa Enterp lia P.O. Aush DHAMAN Name : Wes N : 19BRQPI act Details :	<b>rise</b> gram t Bengal		: 19	Your re Our Re RFQ No Contact	Other References Your reference : / Our Reference : / P122924-001 DT. 24-09-2022 RFQ Number : Contact Person : Contact Number:					
Baro Bhec BAR State GSTI	Shipping from address         Baro Maa Enterprise         Bhedia P.O. Aushgram         BARDHAMAN         State Name : West Bengal       StateCode : 19         GSTIN : 19BRQPR4549P1ZI       PAN :         Contact Details :					Neo Me GOPAL DURGA State N GSTIN	Billing To Address Neo Metaliks Limited GOPALPUR DURGAPUR 713212 State Name : West Bengal StateCode : 19 GSTIN : 19AABCN8514G1ZE PAN : AABCN8514G				
Sr. No.	Item Code	Descriptio	n	Unit	HSN / SAC	Ref.No	Quantity	Price / Unit	Dis %	Dis. Amt.	Amount
1	CN30000336	2.5" HEIG SPECIES	SAPLING (1.5" - HT) MISC. SE OF SAPLING EN BELT	NOS			8,000.000	40.00		-	320,000.00
										T @ 9.00 %	,
In wo	ords : Rupees ]	Chree Lakh 1	wenty Thousand	only			SGST @ 9.00 % 28,800.00 Val.Excl.Tax 200 000 000				
	•		Seventy Seven The		Six Hundree	d only	320,0				320,000.00 377,600.00
Term	s & Conditio	ns : -									011,000.00
Price	Basis		RATES ARE F.O.	R. DUR	GAPUR PL	ANT.					
GST			EXTRA AS APPLI	CABLE.							
Mode	Of Dispatch		BY ROAD.								
Freigh	nt		INCLUSIVE								
Transi	it Insurance		SUPPLIER SCOP	Έ							
Payme	ent Terms		1. 75% ADVANCE INVOICE DULY C				ANCE AFTE	R COMPLET	EION OF	F JOB ON RI	ECEIPT OF TAX
Delive	ry period		IMMEDIATELY O	N RECE	IPT OF P.C	D.					
Inspection BY OUR NML REPRESENTATIVE.											
Reject	tion		IF NOT AS PER C	OUR RE	QUIREMEN	NT.					
Arbitr	ation & Juriso	diction	Jurisdiction at Koll	kata.							

SHEULI MUKHERJEE	
Prepared By	Approved By
NOTE : Please mention order number,Unit of Measurement(UOM),HSN/SAC and A/C head in challan/invoice for faster payment . Your general conditions of sale/services are not applicable to us . Your GST registration number should be quoted in your challan/invoice . Material/Services will be accepted only against submission of copy of Tax invoice.	
	Page : 1 Of 1

# VILLAGE PLANATATION Annexure- 1(b)







CPCB Format

ANNEXURE- I (C)

# **Green Belt Development Report**

No. of Saplings Planted	Name of Species Planted	Area covered Under Plantation	Survival Rate	Density	Area Under Plantation in Numerical form	Percentage of Project Area
30,323 Nos. (as on Dt. 30-09-2023)	Sonajuri, Jamul, Arjun, Kadamb, Karanj, Simarua, Chhatiana, Radhachur etc.	Approx. 31 Acre	Approx. 92 %	Approx. 1000 Nos of Samplings in 1 Acre	Approx. 31 Acre	34.7%



Government of West Bengal **Directorate of Forests** Office of the Divisional Forest Officer Burdwan Division. Phone - Fax:: 0342-2950507, e-mail : dfobdn@yahoo.co.in

No. 275 / 8

To : M/S NEO Metaliks Limited Village and Post- Gopalpur Durgapur-12 Dist - Paschim Bardhaman



25/01/2022.



Sub.- Certificate regarding plantation of tree in non-forest area

As per field verification report of Range Officer, Durgapur Range this is hereby certified that M/s Neo Metaliks Ltd. has undertaken plantation program since 2013-2021 over about 25.74 acres that is 33% of your total plant area of 78 acres. The species planted include Teak, Kadam, Radhachura, Krishnachura, Sirish, Rain tree, Akashmoni etc with some fruit species. It is suggested that you are to maintain uniform spacing as per approved plantation technique and also it should be encouraging to plant broad leaf species along with shrub species as a sunk of pollution. You are also to advise that planting of Akashmoni species should be discouraged as far as practicable and maintenance should be continued as per requirement to maintain the present status of the plantation.

Please keep it up for creation of further green belt in your plant premises available for such work maintaining proper plantation plan and guideline in consultation with the Range Officer Durgapur Range.

A copy of physical field verification report of Range Officer, Durgapur Range is enclosed herewith for maintaining the suggestion made by him.

Divisional Forest Officer Burdwan Division

275(1) / 8 No.

Dated, Burdwan, the

25/01/2022

Copy forwarded for information to: The Range Officer, Durgapur Range.

> Sd/- Nisha Goswami, I.F.S. Divisional Forest Officer Burdwan Division



Annexure-1 (e)

Park Plaza,71 Park Street, 6F , North Block,Kolkata Pin - 700016 Tel : 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CIN No : U27109WB2003PLC097231

## SERVICE ORDER

PO.N	lumber : 33	22000467							Date : 09	.09.2023
Baro Bhec BAR State GSTI Conta	<b>ce provider</b> Maa Enterpr	rise Igram st Bengal Stat R4549P1ZI PAN : Sabita Roy 9932348645 address ise	: 19	Your re Our Re RFQ N Contac Contac Billing Neo Me	Other References         Your reference : /         Our Reference : W122630-003 /         RFQ Number :         Contact Person : Sabita Roy         Contact Number: 9932348645         Billing To Address         Neo Metaliks Limited					
Bhedia P.O. Aushgram         BARDHAMAN         State Name : West Bengal       StateCode : 19         GSTIN : 19BRQPR4549P1ZI       PAN :         Contact Details :       PAN :			State N GSTIN	LPUR APUR 7132 lame : West : 19AABCN ABCN8514	: Bengal I8514G1ZE	Sta	teCode : 19	)		
Sr. No.	Item Code	Description	Unit	HSN / SAC	Ref.No	Quantity	Price / Unit	Dis %	Dis. Amt.	Amount
1		Maintenance of each Saplings and Trees			1322000591		Offic	70		540,000.00
Above	service line	contains below services : -							ST @ 9.00 % ST @ 9.00 %	
	3002478	MAINTENANCE OF EACH SAPLINGS AND TREES	NOS	0		6,000.000	90.00			540,000.00
		Five Lakh Forty Thousand only					Val.Excl.			540,000.00
	s & Conditic	Six Lakh Thirty Seven Thousar		Hunarea on	lly		Order Va	aiue		637,200.00
Gener	al Conditions	<ol> <li>You have to model.</li> <li>Necessary many</li> <li>You will provide</li> <li>Material shifting</li> <li>Jointly signed F</li> <li>Power and Wat</li> <li>You have to tak</li> <li>You have to foll</li> <li>You are liable to</li> <li>You are liable to</li> <li>In the event of</li> <li>the course of exect</li> <li>If any accidentian worker's family as</li> <li>You will be rest</li> <li>All employees</li> <li>certificate of which</li> <li>Compensation Ins</li> <li>Other existing</li> </ol>	bower, to a dedic from Si deconcili er will be e care c ow all s o follow any clai cuting th opecurs per the sponsible engage n to be s urance	ools, tackle ated mobil tore to site e supplied of all safety afety norms all necessa m or dema e work, you during the statuary ru e for all pay id in the site submitted b and any lia	s to be carry c e phone to you and site to stoc t will be submi at one point yu aspects of yo s and ensure a ary rules and r nd being madu u will be liable work, you will les in force in yment includin e must cover E efore executio bility occur to	but the job is ur Site-in-cha ore will be in y tted alongwith ou will make ur employees all kind of safe egulation unc e on us as a to indemnify be liable for the state or t g minimum w SI & EPF re n of work. Th NML the sam	in your scope rge at site an your scope the bill for ra- your own arra- s working at s ety to your wo ler law of lanc- consequent o for the same. all payments, he country as rages to your gistration/ unc toose who are the will be real	d he mu elease o ingemer irkers ar d e.g. Fa f any ac mainter a whole workers der insui not cove ized fror	of payment. In for your recond supervision actory Acts, L thance etc. to ance etc. to as per the G rance covera ered under E n you.	quirement. rs. abour Acts etc. ng done by you in the worker / Government rules. ge and the
Scope	of Work	SCOPE OF WOR	k for i	PLANTATIO	ON (MAINTEN	IACE WORK	FROM APRI	L 2023 T	TO SEPTERI	MBER'2023)
		1. Cleaning of the 2. 1st mulching, w 3. 2nd mulching, v 3. DAP = 3 Bag. 4. Watching the pl	nd application and applicatior	of Fertilizer	with 40 Gm D	AP.	e plant from c	lamages.		
GST		Extra as applicabl	e.							
	SHEULI MUK	HERJEE								
	Prepared B	у							Approved	Ву
NOTE :	Please mention	order number, Unit of Measurement	(UOM),H	SN/SAC and	A/C head in ch	allan/invoice fo	r faster paymer	ıt.		

Your general conditions of sale/services are not applicable to us . Your GST registration number should be quoted in your challan/invoice . Material/Services will be accepted only against submission of copy of Tax invoice.



Annexure- II

Park Plaza,71 Park Street, 6F , North Block,Kolkata Pin - 700016 Tel : 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CIN No : U27109WB2003PLC097231

### SERVICE ORDER

PO.N	Number : 3	322000185							Date : 0	06.04.2023
RIN/ LOH KAN State GST	IKSA 8 Name : We	I <b>SE</b> KSHITPUR KANKSA Ist Bengal Sta PB575802ZD PAN :	Your n Our Re RFQ N Contac	Other References Your reference : OFFER / 04.03.2023 Our Reference : W123406-001 / 06.04.2023 REQ Number : Contact Person : Contact Number:						
RIN/ LOH KAN State GST	KSA Name : We	ISE KSHITPUR KANKSA est Bengal Sta PB5758D2ZD PAN :	deCode	s: 19	Neo M GOPA DURG State 1 GSTIN	APUR 7132 Name : Wes	ed 12 t Bengal 48514G1ZE		ateCode :	19
Sr.	Item	Description	Unit	HSN /	Ref.No	Quantity	Price /	Dis	Dis.	Amount
<u>No.</u> 1	Code	170 RMT Road Work Construction of New 170 RMT RCC Road (Road width 4 mtr) at Sinter HT Roam to Ground Hopper		SAC	1322000168		Unit	%	Amt	683,340.00
Abas		a contains below services :	3						357 @ 9.00 357 @ 9.00	
ADDV	3000066	Earth Cutting	M3	9954		340.000	220.00		T	74,800.0
	3001494	SUPPLY & LAYING300MM THK BOULDER SOLING	M3	0		270.000	1,350.00			364,500.0
	3001493	PROVIDING & LAVING POLYETHENE	M2	0		680,000	25.00			17,000.0
	3001005	RCC (M-25)	M3			136,000	1,500.00			204,000.00
	3000823	REIN_FORCEMENT. REINFORCEMENT	MT	0		3.600	6,400.00			23,040.00
In ma	ords : Rupees	Six Lakh Eighty Three Thouse	nd Thre	e Hundred	Forty only	2	Val Excl	Tax	-00	693,340.00
In w	ords : Rupees	Eight Lakh Six Thousand Thre	e Hundr	red Forty O	ne And Paise	Twenty only	Order Va	alue		806,341.20
	s & Condition	<ol> <li>f. Mobilization at 2. Steel, Cernent 3. You have to si 4. All other materi- be in your scope.</li> <li>5. Scaffolding if r 6. You will be res 7. You must ensi 8. You must prov 9. Safety of the w type of compensi- Safety Shoes, Sa</li> </ol>	Bricks, bmit Re ials, too equired ponsible ire adeq ide prop orkers o stor to topcus statutor	Stone Chip conciliation is & tacklee shall be arr for all pay uate super er safety er engaged in your worker ggles, and I s during the y rules in to	is and Sand w istatement of and labour ar anged by you, ment including rision of work quipment to yo the job is your You have to Hand Gioves i work, you will roe in the statil	II be supplier free issue ma d scaffolding for compliant our workmen, responsibility provide adeq to, as per sal be liable for	I by NML as t aterials from M ystaging requires to safety m and the com valle Personn fety requirements all payments.	ree iss ML ired to corkers easure pany s el Prote ant mainte	complete the as per the hall not be ective Equip	e job in totality shall Government rules responsible for any pment like Helmet, to the worker/ worker
	Rajeswari Na	0100000000000			in the feet				A	Mon
	Prepared 6	Зу							Approv	ed By
IOTE :	Your general of Your GST regi	order number Unit of Measuremen orditions of sale/services are not a stallion number should be quoted res will be accepted only against su	oplicable in your ch	to us . altanámicice	la sur se	allan/invoice fo	r faster paymen	đ.,		



**Annexure-III** 

Park Plaza,71 Park Street, 6F, North Block,Kolkata Pin - 700016 Tel: 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CIN No : U27109WB2003PLC097231

## **PURCHASE ORDER**

PO.	PO.Number : 3522000278 Date : 09.03.2023										
ENV D/16 NA\ Stat GST	ils of supplie /EA INDIA PV 5 3 & 4 TTC II /I MUMBAI e Name : Mał FIN : 27AACC tact Details :	<b>/T LTD</b> NDUSTRIAL AREA MIDC T narashtra State	URBHE eCode	_	Your r Our R REF:NI RFQ I Conta	Other References Your reference : / Our Reference : P222309-001 / REF:NML/ENVIORN/ENVEA/2209, DTD.28.07.2022 RFQ Number : Contact Person : Contact Number:					
Shipping from addressENVEA INDIA PVT LTDD/16 3 & 4 TTC INDUSTRIAL AREA MIDC TURBHENAVI MUMBAIState Name : MaharashtraStateCode : 27GSTIN : 27AACCE0200B1ZOPAN :Contact Details :						Billing To Address Neo Metaliks Limited Vil & PO Gopalpur,Dist Burdwan Durgapur 713212 State Name : West Bengal StateCode : 19 GSTIN : 19AABCN8514G1ZE PAN : AABCN8514G					
Sr. No.	ltem Code	Description	Unit	HSN / SAC	Ref.No	Quantity	Price / Unit	Dis %	Dis. Amt.	Amount	
1	PC95001675	SO2 ANALYSER	NOS		1722000040	3.000		0.00		1,590,000.00	
-									· @ 18.00 %		
2	PC95001679	NOX ANALYSER	NOS		1722000040	3.000	570,000.00				
		_					,		· @ 18.00 %		
3	PC95001680	CO ANALYSER FOR CAAQMS	NOS		1722000040	3.000	472,000.00				
		•		•		•		IGST	@ 18.00 %	254,880.00	
4	PC95001681	PM2.5 ANALYSER	NOS		1722000040	3.000	810,000.00	0.00	0.00	2,430,000.00	
	•	-						IGST	@ 18.00 %	437,400.00	
5	PC95001682	PM10 ANALYSER	NOS		1722000040	3.000	800,000.00	0.00	0.00	2,400,000.00	
		·						IGST	· @ 18.00 %	432,000.00	
6	PC95001683	MULTI POINT, MULTI-GAS CALLIBRATOR	NOS		1722000040	3.000	355,000.00	0.00	0.00	1,065,000.00	
				_				IGST	@ 18.00 %	191,700.00	
7	PC95001684	CALLIBRATION GAS CYLINDERS(SO2, NOX, CO)	NOS		1722000040	3.000	60,000.00	0.00	0.00	180,000.00	
	1							IGST	@ 18.00 %	32,400.00	
8	PC95001685	GAS SAMPLING SYSTEM & HOOD	NOS		1722000040	3.000	22,000.00	0.00	0.00	66,000.00	
				_				IGST	@ 18.00 %	11,880.00	
9	PC95001686	RACK CABINET FOR ALL ANALYSERS & SYSTEM	NOS		1722000040	3.000	54,735.00	0.00	0.00	164,205.00	
					<b>.</b>			IGST	@ 18.00 %	29,556.90	
10	PC95001689	DATA LOGGER- SOFTWARE	NOS		1722000040	3.000	159,598.00	0.00	0.00	478,794.00	
10.11	IGST @ 18.00 % 86,182.92 In words : Rupees One Crore Fourteen Lakh Ninety Nine Thousand Nine Hundred Ninety Nine Val.Excl.Tax 11,400,000 or										
only						-		Idx		11,499,999.00	
	n words : Rupees One Crore Thirty Five Lakh Sixty Nine Thousand Nine Hundred Ninety Eight Order Value 13,569,998.82 Ind Paise Eighty Two only										
Tern	ns & Conditio	ons : -									
Hood	or toxt	Kind Atta: Mr. Sun	om Mo-	umdar M		(Mab. 060154	4500)				

Header text

Kind Attn: Mr. Suvam Mazumder, Manager Sales (Mob: 9681541523)

Rajeswari Nair

Prepared By

Approved By

NOTE : Please mention order number,Unit of Measurement(UOM),HSN/SAC and A/C head in challan/invoice for faster payment . Your general conditions of sale/services are not applicable to us . Your GST registration number should be quoted in your challan/invoice . Material/Services will be accepted only against submission of copy of Tax invoice.

#### Annexure- IV



363, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Email - qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976



DOC NO : QLS/SAMP/08-A/00

		TEST	REPORT	Social Contraction of the second
M/s. Neo Metaliks Ltd. 1 Vill + P.O. : Gopalpur 5 P.S. : Kanksa,Durgapur 1 Paschim Bardhaman 5			port No. te mple No. te of Performanc mple Description f No. Date	그는 것 같은 것 같
		Analy	sis Result	
local	tion: Near Main Gate		Date of sampl	ing : 22.05-23.05.2023
	oling Done by: P.Mandal/P.Mahato		Sampling don	e as per : CPCB Guidelines (Volume-1)
Envir	onmental Condition : Cloudy & Drizzlin	g		
SI. Ņo.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1'	Particulate matter (PM $_{10})$ in $\mu g/m^3$	95	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter $\{PM_\ell_3\}$ in $\mu g/m^3$	48	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^4$	6.6	80	IS: 5182 (Part 2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu g/m^3$	29.8	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in $\mu g/m^3$	732	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	11.2	400	Air Sampling , 3"Edn -Method-401
7	Ozone (O3) in µg/m3	<19.62	180	Air Sampling , 3rdEdn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	0.05	1	EPA 10-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	6.2	20	ÉPA IO-3.2
10	Arsenic (As) in ng/m <sup>4</sup>	<1.0	6	Air Sampling., 3 <sup>nd</sup> Edn.Method 402 and APHA 232 <sup>nd</sup> Edition Part 3114B
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in $\mu$ g/m <sup>4</sup>	<2.08	5	IS: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part-12)

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

HURSEN

(Benimadhab Goral, Chemist) (Authorized Signatory)

----- End of the Report-----

The results relate only to the item(s) tested.

· This Test Report shall not be reproduced without the permission of Qualissure Laboratory Services.

. The reserved part of sample(s, except perishable sample(s), shall be retained for 30 days from the date of issue of the Test Report.





		TEST	REPORT	DOC NO : QLS/SAMP/08-A/00
Nam	e & Address Of the Customer:	- Contraction of the local division of the l	Dort No.	: QLS/A/23-24/C/179
M/s.	Neo Metaliks Ltd.	Da	and the second second	: 03.06.2023
Vill +	P.O. : Gopalpur	Sar	mple No.	: QLS/A/23-24/179
P.S. : Kanksa, Durgapur Dat			te of Performanc	ANESS CRITERIA CO. AN
			mple Description	: Ambient Air
West	t Bengal – 713 212	Re	f No. Date	: 3322000242,Dated:23.05.2023
		Analy	sis Result	
Loca	tion: North East Boundary Wall		Date of sample	ing: 24.05.2023-25.05.2023
Samj	pling Done by: P.Mandal/P.Mahato		Sampling done	e as per : CPCB Guidelines (Volume-1)
Envir	ronmental Condition : Cloudy & Light Ra	iinfall		
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM $_{10})$ in $\mu g/m^3$ .	64	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM $_{2.5})$ in $\mu g/m^3$	28	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^3$	6.3	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	27.9	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	629	2000	IS: 5182 (Part-10):1999,RA-2014
6.	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	<10.0	400	Air Sampling , 3rdEdn -Method-401
7	Ozone (O3) in µg/m3	<19.62	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411
8	Leàd (Pb) in µg/m³	<0.02	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	<4.0	20	EPA IO-3.2
10	Arsenic (As) in ng/m <sup>3</sup>	<1,0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 31148
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in µg/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by :

Darlan-

for Qualissure Laboratory Services **Reviewed & Authorized By** 

(Benimadhab Gorai, Chemist) (Authorized Signatory)\*

----- End of the Report-----

The results relate only to the item(s) tested.

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The reserved part of sample(s), except perishable sample(s), shall be retained for 20 da



ţ.		TEST	REPORT	DOC NO : QLS/SAMP/08-A/00
M/s Vill P.S. Pase	Name & Address Of the Customer: M/s. Neo Metaliks Ltd. Vill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman West Bengal – 713 212		port No. te mple No. te of Performanc mple Description f No. Date sis Result	
Loca	ation: Near Administrative Building	(1.97) (m. 1.)	Date of sampli	ing: 23.05.2023-24.05.2023
Sam	pling Done by: P.Mandal/P.Mahato		Sampling done	e as per : CPCB Guidelines (Volume-1)
Env	ironmental Condition : Heavy Rainfall		-	
SI. No:	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM $_{10})$ in $\mu g/m^3$	71	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM <sub>2.5</sub> ) in $\mu g/m^3$	39	60	USEPA CFR-40, Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^3$	6.2	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	28.0	80	IS: 5182 (Part- 6)-2006, RA-2017
: 5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	801	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>1</sup>	20.8	400	Air Sampling , 3"dEdn -Method-401
7	Ozone {O <sub>3</sub> } in µg/m <sup>3</sup>	<19.62	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	0.02	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	<4.0	20	EPA 10-3.2
10		<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 31148
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in µg/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

**Report Prepared by :** 

Barlon

for Qualissure Laboratory Services Reviewed & Authorized By

Histor (Benimadhab Goral, Chemist (Authorized Signatory)

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DOC NO : QLS/SAMP/08-A/00

361, Prantick Pally, 45/361, Bose Pukur Rood, Kolkata -700107 Email: qualissure@gmail.com; info@qualissure.com; Mob.No. 98312 87086; 9830093976

		TEST	REPORT	DOC NO : QLS/SAMP/08-A/
Name & Address Of the Customer: M/s. Neo Metaliks Ltd. Vill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman West Bengal – 713 212		Da Sar Da Sar	port No. te mple No. te of Performanc mple Description f No. Date	
		Analy	sis Result	
Locat	tion: C.P.P		Date of sample	ng : 23.05.2023-24.05.2023
Samp	oling Done by: P.Mandal/P.Mahato		Sampling done	e as per : CPCB Guidelines (Volume-1)
Envir	onmental Condition : Heavy Rainfall			
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM_{10}) in $\mu g/m^3$	58	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter $$ (PM_{2.5}) in $\mu g/m^3$	23	60	USEPA CFR-40,Part-50, Appendix-L
3 *	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^3$	6.0	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu g/m^3$	27.4	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in $\mu g/m^3$	641	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	13.6	400	Air Sampling , 3rdEdn -Method-401
7	Ozone (O3) in µg/m3	20.3	180	Air Sampling , 3'dEdn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA 10-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	<4.0	20	EPA 10-3.2
10	Arsenic (As) in ng/m <sup>3</sup>	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn. Method 402 and APHA 232 <sup>rd</sup> Edition Part 3114B
11	Benzene (C <sub>5</sub> H <sub>6</sub> ) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
12.	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by :

Harlar

for Qualissure Laboratory Services Reviewed & Authorized By

(Benimadhab Gorai Chemist)-(Authorized Signatory)

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361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Lural : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

		TEST	REPORT	DOC ND : QLS/SAMP/08-A/0	
M/s. Vill + P.S. : Pasci	Name & Address Of the Customer: M/s. Neo Metaliks Ltd. Vill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman West Bengal – 713 212		Neo Metaliks Ltd. Date P.O. : Gopalpur Sample No. Kanksa,Durgapur Date of Performance( im Bardhaman Sample Description Bengal – 713 212 Ref No. Date		
		Analy	sis Result		
Locat	tion: P.C.M Boundary Wall		Date of sampl	ing: 22.05-23.05.2023	
Samp	oling Done by: P.Mandal/P.Mahato		Sampling don	e as per : CPCB Guidelines (Volume-1)	
Envir	onmental Condition : Cloudy & Drizzling	g	94. 97		
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference	
1	Particulate matter (PM $_{10})$ in $\mu g/m^3$	91	100	IS: 5182 (Part-23), RA-2017	
2	Particulate matter (PM_{2.5}) in $\mu g/m^3$	50	60	USEPA CFR-40,Part-50, Appendix-L	
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	7.1	80	IS: 5182 (Part-2)-2001, RA-2017	
. 4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	28.3	80	IS: 5182 (Part- 6)-2006, RA-2017	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	709	2000	IS: 5182 (Part-10):1999,RA-2014	
•6	Ammonia (NH3) in µg/m <sup>3</sup>	15.7	400	Air Sampling , 3 <sup>rd</sup> Edn -Method-401	
7	Ozone (O3) in µg/m <sup>3</sup>	20.1	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411	
8	Lead (Pb) in µg/m <sup>3</sup>	0.04	1	EPA 10-3.2 & 5.0	
9	Nickel (Ni) in ng/m <sup>3</sup>	5.2	20	EPA 10-3.2	
10	Arsenic (As) in ng/m <sup>3</sup>	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 3114B	
+11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in $\mu$ g/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)	
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)	

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by :

Barkari

1

for Qualissure Laboratory Services Reviewed & Authonized By

> (Benimadhab Gorar, Chemist) (Authorized Signatory)

----- End of the Report-----

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# Jualissure Laboratory Ser



361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

DOC NO : QLS/SAMP/08-A/00

Name & Address Of the Customer:	Report No.	: QLS/MR/A/23-24/C/362
M/s. Neo Metaliks Ltd.	Date	: 28.07.2023
Vill + P.O. : Gopalpur	Sample No.	: QL5/MR/A/23-24/362
P.S. : Kanksa, Durgapur	Date of Performance(s)	: 22.07.2023-28.07.2023
Paschim Bardhaman	Sample Description	: Ambient Air
West Bengal – 713 212	Ref No. Date	: 3322000242, Dated: 23.05.2023

E DED

## Analysis Result

Locat	tion: C.P.P		Date of sampling : 18.07.2023-19.07.2023 Sampling done as per : CPCB Guidelines (Volume-1)		
Samj	pling Done by: S.Ghosh/P.Mahato				
Envir	ronmental Condition : Rainfall				
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference	
1	Particulate matter (PM10) in $\mu g/m^3$	50	100	IS: 5182 (Part-23), RA-2017	
2	Particulate matter ( $PM_{25}$ ) in $\mu g/m^3$	27	60	USEPA CFR-40, Part-50, Appendix-L	
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	5.2	80	IS: 5182 (Part-2)-2001, RA-2017	
4	Nitrogen dioxide (NO2) in µg/m <sup>3</sup>	26.6	80	IS: 5182 (Part- 6)-2006, RA-2017	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	595	2000	IS: 5182 (Part-10):1999,RA-2014	
6	Ammonia (NH3) in µg/m3	10.2	400	Air Sampling , 3 <sup>rd</sup> Edn -Method-401	
7	Ozone (O <sub>3</sub> ) in µg/m <sup>3</sup>	<19.62	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411	
8	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA 10-3.2 & 5.0	
9	Nickel (Ni) in ng/m <sup>3</sup>	<4.0	20	EPA IO-3.2	
10	Arsenic (As) in ng/m <sup>3</sup>	<1.0	6	Air Sampling, 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 3114B	
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in µg/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)	
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)	

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by :

R. Shisma

for Qualissure Laboratory Services Reviewed & Authorized By

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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### DOC NO : QLS/SAMP/08-A/00

Name & Address Of the Customer:	Report No.	: QLS/MR/A/23-24/C/363
M/s. Neo Metaliks Ltd.	Date	: 28.07.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/363
P.S. : Kanksa,Durgapur	Date of Performance(s)	: 22.07.2023-28.07.2023
Paschim Bardhaman	Sample Description	: Ambient Air
West Bengal – 713 212	Ref No. Date	: 3322000242, Dated: 23.05.2023

TECT DEDODT

### Analysis Result

locat	tion: Near Main Gate		Date of sampling : 18.07-19.07.2023		
Sampling Done by: S.Ghosh/P.Mahato			Sampling done as per : CPCB Guidelines (Volume-1)		
Envir	onmental Condition : Rainfall		20	12 Sala	
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference	
1	Particulate matter (PM $_{\rm 10})$ in $\mu g/m^3$	88	100	IS: 5182 (Part-23), RA-2017	
2	Particulate matter (PM_{2.5}) in $\mu g/m^3$	39	60	USEPA CFR-40, Part-50, Appendix-L	
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	6.1	80	IS: 5182 (Part-2)-2001, RA-2017	
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	25.9	80	IS: 5182 (Part- 6)-2006, RA-2017	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	721	2000	IS: 5182 (Part-10):1999,RA-2014	
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	<10.0	400	Air Sampling , 3 <sup>rd</sup> Edn -Method-401	
7	Ozone (O3) in µg/m3	<19.62	180	Air Sampling , 3 <sup>rd</sup> Edn - Method-411	
8	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA IO-3.2 & 5.0	
9	Nickel (Ni) in ng/m <sup>3</sup>	4.8	20	EPA 10-3.2	
10	Arsenic (As) in ng/m <sup>3</sup>	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 31148	
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in µg/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)	
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)	

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by :

R. Shorma

for Qualissure Laboratory Services Reviewed & Authorized By

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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		TES	ST REPORT	DOC NO : QLS/SAMP/08-A/
Name & Address Of the Customer: M/s. Neo Metaliks Ltd. Vill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman West Bengal – 713 212			Report No. Date Sample No. Date of Performar Sample Descriptio Ref No. Date	
		Ana	lysis Result	
- 10- TA	ation: Near Administrative Building		Date of samp	ling : 19.07.2023-20.07.2023
	pling Done by: S.Ghosh/P.Mahato		The subscription of the second second	e as per : CPCB Guidelines (Volume-1)
Envi SI.	ronmental Condition : Rainfall	-		
No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM10) in µg/m <sup>3</sup>	68	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM <sub>2.5</sub> ) in $\mu g/m^3$	32	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	6.0	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	27.3	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	629	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	15.4	400	Air Sampling , 3 <sup>rd</sup> Edn -Method-401
7	Ozone (O3) in µg/m3	<19.62	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	<4.0	20	EPA 10-3.2
10	Arsenic (As) in ng/m³	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 31148
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in µg/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)
				the second

18<sup>th</sup>November 2009, for Amblent air quality.

Report Prepared by :

R. Shama

for Qualissure Laboratory Services Reviewed & Authorized By

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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#### DOC NO : QLS/SAMP/08-A/00

Name & Address Of the Customer:	Report No.	: QLS/MR/A/23-24/C/365
M/s. Neo Metaliks Ltd.	Date	: 28.07.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/365
P.S. : Kanksa, Durgapur	Date of Performance(s)	: 22.07.2023-28.07.2023
Paschim Bardhaman	Sample Description	: Ambient Air
West Bengal – 713 212	Ref No. Date	: 3322000242,Dated:23.05.2023

TEST REDORT

## Analysis Result

Date of sampling : 19.07-20.07.2023		
Sampling done as per : CPCB Guidelines (Volume-1)		

Environmental Condition : Rainfall

SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM $_{10})\;$ in $\mu g/m^3$	72	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM <sub>2.5</sub> ) in $\mu g/m^3$	36	60	USEPA CFR-40, Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	6.9	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO2) in µg/m3	26.1	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	561	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	12.0	400	Air Sampling , 3rdEdn -Method-401
7	Ozone (O3) in µg/m3	<19.62	180	Air Sampling , 3rdEdn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA 10-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	5.0	20	EPA 10-3.2
10	Arsenic (As) in ng/m <sup>1</sup>	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 3114B
11	Benzene ( $C_6H_6$ ) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by :

R. Somo

for Qualissure Laboratory Services Reviewed & Authorized By

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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Nam	e & Address Of the Customer:	Re	port No.	: QLS/MR/A/23-24/C/366
M/s. Neo Metaliks Ltd. D			te	: 28.07.2023
	P.O. : Gopalpur	Sa	mple No.	: QLS/MR/A/23-24/366
	: Kanksa,Durgapur	1.523	te of Performanc	
	him Bardhaman t Bengal – 713 212	Sample Description		
** C.5	e bengar - 715 212	1.1.2.1.2.1.2.2.2.1.2	f No. Date	: 3322000242,Dated:23.05.2023
		Analy	sis Result	
Loca	tion: North East Boundary Wall		Date of sampl	ing: 20.07.2023-21.07.2023
Sam	pling Done by: S.Ghosh/P.Mahato		Sampling done	e as per : CPCB Guidelines (Volume-1)
Envi	ronmental Condition : Rainfall			
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM $_{10}$ ) in $\mu g/m^3$	47	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM_{2.5}) in $\mu g/m^3$	21	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^3$	5.9	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu g/m^3$	27.1	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in $\mu\text{g}/\text{m}^3$	446	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in μg/m <sup>3</sup>	16.8	400	Air Sampling , 3rdEdn -Method-401
7	Ozone (O3) in µg/m³	<19.62	180	Air Sampling , 3rdEdn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA 10-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	<4.0	20	EPA 10-3.2
10	Arsenic (As) in ng/m <sup>3</sup>	<1.0	6	Air Sampling, 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 3114B
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in $\mu$ g/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)
NO	TE: Limit as per CPCB notification, New I	elhi, 18 <sup>th</sup> N	lovember 2009, fo	or Ambient air quality.
	ort Prepared by : R Stamme			for Qualissure Laboratory Services Reviewed & Authorized By
				(Benimadhab Gorai, Chemist) (Authorized Signatory)

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		1.5.000.000		DOC NO : QLS/SAMP/08-A/0
2		TEST	REPORT	
Name	e & Address Of the Customer:	Rep	ort No.	: QLS/MR/A/23-24/C/534
M/s.	Neo Metaliks Ltd.	Dat	e	: 25.09.2023
	P.O. : Gopalpur	11 20323	nple No.	: QLS/MR/A/23-24/534
	Kanksa, Durgapur	10.0263	e of Performance	사람이 M - 이번 위험 및 것 수학 관심 것에서
	iim Bardhaman	0.22236	nple Description	
west	Bengal – 713 212		No. Date	: 3322000242,Dated:23.05.2023
		Analys	sis Result	
Locat	tion: Near Main Gate		Date of sampli	ng : 09-10.09.2023
Samp	oling Done by: P.Mandal/P.Mahato		Sampling done	as per : CPCB Guidelines (Volume-1)
Envir	onmental Condition : Light Rainfall	1		
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter ( $PM_{10}$ ) in $\mu g/m^3$	85	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM_{2.5}) in $\mu g/m^3$	42	60	USEPA CFR-40, Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	7.0	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	27.4	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	1110	2000	IS: 5182 (Part-10):1999, RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	26.4	400	Air Sampling , 3rdEdn -Method-401
7	Ozone (O3) in µg/m <sup>3</sup>	20.1	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	9.1	20	EPA IO-3.2
10	Arsenic (As) in ng/m <sup>3</sup>	<1.0	6	Air Sampling, 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 3114B
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in $\mu$ g/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by :

Karkon.

for Qualissure Laboratory Services **Reviewed & Authorized By** 

(Benimadhab Gorat, Chemist) (Authorized Signatory)

----- End of the Report-----

The results relate only to the item(s) tested.

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. The reserved part of sample(s), except perishable sample(s), shall be retained for 30 days from the date of issue of the Test Report.





DOC NO : OLS/SAMP/08-A/00

361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

	11000	TEST	REPORT	
Name & Address Of the Customer: M/s. Neo Metaliks Ltd. Vill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman West Bengal – 713 212		Report No. Date Sample No. Date of Performance(s) Sample Description Ref No. Date Analysis Result		
Location: Near Administrative Building			Date of sampling : 09 - 10.09.2023	
Sampling Done by: P.Mandal/P.Mahato			Sampling done as per : CPCB Guidelines (Volume-1)	
Envir	onmental Condition : Light Rainfall			
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM $_{10})$ in $\mu g/m^3$	93	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM_{2.5}) in $\mu g/m^3$	58	60	USEPA CFR-40, Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	7.5	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu g/m^3$	29.7	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	1018	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	18.2	400	Air Sampling , 3 <sup>rd</sup> Edn -Method-401
7	Ozone (O <sub>1</sub> ) in µg/m <sup>3</sup>	<19.62	180	Air Sampling , 3 <sup>nt</sup> Edn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	0.11	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	11.4	20	EPA 10-3.2
10	Arsenic (As) in ng/m <sup>3</sup>	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 3114B
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in $\mu$ g/m <sup>3</sup>	<2.08	5	(5: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by : ()

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for Qualissure Laboratory Services **Reviewed & Authorized By** 

Benimadhab Gorai, Chemist (Authorized Signatory)

----- End of the Report-----

The results relate only to the item(s) tested.

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361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

DOC NO : QLS/SAMP/08-A/00

		TEST	REPORT	
M/s. I Vill + P.S. : Pasch	e & Address Of the Customer: Neo Metaliks Ltd. P.O. : Gopalpur Kanksa,Durgapur him Bardhaman Bengal – 713 212	Dat San Dat Sar Ref	ort No. e nple No. e of Performanc nple Description No. Date sis Result	
Locat	tion: C.P.P		Date of sampli	ing : 09-10.09.2023
Samp	bling Done by: P.Mandal/P.Mahato		Sampling done	e as per : CPCB Guidelines (Volume-1)
Envir	onmental Condition : Light Rainfall			1 1 1 1 1 1 1 2 2
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM $_{\rm 10})$ in $\mu g/m^3$	40	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM <sub>2.5</sub> ) in $\mu g/m^3$	19	60	USEPA CFR-40, Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	6.6	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	25.9	80	IS: 5182 (Part-6)-2006, RA-2017
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	698	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>4</sub> ) in µg/m <sup>3</sup>	<10.0	400	Air Sampling , 3"Edn -Method-401
7	Ozone (O3) in µg/m3	<19.62	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411
8	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	<4.0	20	EPA 10-3.2
10	Arsenic (As) in ng/m <sup>3</sup>	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 31148
11	Benzene (C <sub>6</sub> H <sub>6</sub> ) in $\mu$ g/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.

Report Prepared by : 🖂

for Qualissure Laboratory Services **Reviewed & Authorized By** 

Benimadhab Gorai, Chemist (Authorized Signatory)

----- End of the Report-----

The results relate only to the item(s) tested.

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361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

		TEST	REPORT	DOC NO : QL5/SAMP/08-A/0
Nam	e & Address Of the Customer:			
		1.5	port No.	: QLS/MR/A/23-24/C/537
	Neo Metaliks Ltd. P.O. : Gopalpur	Dat		: 25.09.2023
	Kanksa,Durgapur		nple No. te of Performanc	: QLS/MR/A/23-24/537 e(s) : 17-25.09.2023
	him Bardhaman	1000	nple Description	10.12
	t Bengal – 713 212	1000	f No. Date	: 3322000242,Dated:23.05.2023
			sis Result	. 3322000242,0400423.03.2023
Loca	tion: P.C.M Boundary Wall		I State State	ing : 10 - 11.09.2023
Sam	pling Done by: P.Mandal/P.Mahato		Sampling done	e as per : CPCB Guidelines (Volume-1)
Envi	ronmental Condition : Light Rainfall		1. A	2012
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM10) in $\mu g/m^3$	90	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter (PM_{2.5}) in $\mu g/m^3$	31	60	USEPA CFR-40, Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^3$	8.0	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ] in µg/m <sup>3</sup>	28.1	80	IS: 5182 (Part- 6)-2006, RA-2017
.5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	721	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	16.5	400	Air Sampling , 3 <sup>rd</sup> Edn -Method-401
7	Ozone (O3) in µg/m <sup>3</sup>	<19.62	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411
В	Lead (Pb) in µg/m <sup>3</sup>	<0.02	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m <sup>3</sup>	8.6	20	EPA 10-3.2
10	Arsenic (As) in ng/m³	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402 and APHA 232 <sup>rd</sup> Edition Part 3114B
11	Benzene (C_6H_6) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
12	Benzo (a) pyrene in ng/m <sup>3</sup>	<0.4	1	IS: 5182 (Part- 12)

NOTE: Limit as per CPCB notification, New Delhi, 18"November 2009, for Ambient air quality.

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

Benimadhab Gorai, Chemist (Authorized Signatory)

----- End of the Report-----

· The results relate only to the item(s) tested.

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361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

DOC NO : QLS/SAMP/08-A/00

		TEST	REPORT	
Name & Address Of the Customer: M/s. Neo Metaliks Ltd. Vill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman				: QLS/MR/A/23-24/C/538 : 25.09.2023 : QLS/MR/A/23-24/538 e(s) : 17-25.09.2023 : Ambient Air
West	t Bengal – 713 212	1.22	No. Date	: 3322000242,Dated:23.05.2023
		Analy	sis Result	
l.oca	tion: North East Boundary Wall		Date of sampli	ng : 10 - 11.09.2023
Sam	pling Done by: S.Ghosh/P.Mahato		Sampling done	as per : CPCB Guidelines (Volume-1)
Envir	ronmental Condition : Light Rainfall			200 VCE 1
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM $_{10})$ in $\mu g/m^3$	57	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter ( $PM_{2,5}$ ) in $\mu g/m^3$	29	60	USEPA CFR-40, Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>8</sup>	6.9	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	26.4	80	IS: 5182 (Part- 6)-2006, RA-2017
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	984	2000	IS: 5182 (Part-10):1999,RA-2014
6	Ammonia (NH <sub>3</sub> ) in µg/m <sup>3</sup>	<10.0	400	Air Sampling , 3"Edn -Method-401
7	Ozone (O3) in µg/m3	<19.62	180	Air Sampling , 3 <sup>rd</sup> Edn -Method-411
8	Lead (Pb) in µg/m <sup>a</sup>	<0.02	1	EPA 10-3.2 & 5.0
9	Nickel (Ni) in ng/m3	<4.0	20	EPA IO-3.2
	Commentation and the comments	<1.0	6	Air Sampling , 3 <sup>rd</sup> Edn.Method 402
10	Arsenic (As) in ng/m <sup>8</sup>	<1.0	0139.00	and APHA 232 <sup>rd</sup> Edition Part 31148
10 11	Arsenic (As) in ng/m <sup>3</sup> Benzene (C <sub>6</sub> H <sub>6</sub> ) in µg/m <sup>3</sup>	<2.08	5	IS: 5182 (Part- 11)

Report Prepared by:

for Qualissure Laboratory Services **Reviewed & Authorized By** 

Benimadhab Gorai, Chemist (Authorized Signatory)

---- End of the Report----

· The results relate only to the item(s) tested.

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Annexure-V

Park Plaza,71 Park Street, 6F , North Block,Kolkata Pin - 700016 Tel: 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CIN No : U27109WB2003PLC097231

## **PURCHASE ORDER**

PO.Number : 35	22000312							Date : 20.	03.2023
Details of supplie Control Systems 28/2F, Nakuleswa KOLKATA State Name : Wes GSTIN : 19AFOPI Contact Details :	a <b>&amp; Solutions</b> ar Bhattacharjee Lane st Bengal Sta	teCode	: 19	Your re Our Re RFQ No Contact	References ference : P2 ference : SY umber : t Person : t Number:	22320-001			
Shipping from ad Control Systems & 28/2F, Nakuleswa KOLKATA State Name : Wes GSTIN : 19AFOP Contact Details :	& Solutions ar Bhattacharjee Lane st Bengal Sta	teCode	: 19	Neo Me Vil & PO Durgap State N GSTIN	<b>Fo Address</b> etaliks Limite D Gopalpur,I ur 713212 ame : West : 19AABCN8 AABCN85140	Dist Burdwa Bengal 514G1ZE		eCode : 19	
Sr. Item No. Code	Description	Unit	HSN / SAC	Ref.No		Price / Jnit	Dis %	Dis. Amt.	Amount
1 CN30004259	WATER CANON/DEFOGGER	NOS		1722000042		184,000.00	0.00		1,104,000.00
I				1	ļ	I	SGS	T@9.00% T@9.00%	,
	Eleven Lakh Four Thousand o	•				Val.Excl.			1,104,000.00
In words : Rupees	Thirteen Lakh Two Thousand	Seven Hu	undred I we	enty only		Order Va	lue		1,302,720.00
	Sub: Order for De including Supervis Spares and 2-Yea Ref: - 1/ Our Enq 2/ Your Offer date 3/ Your Revised 0	sion Serv ars of Spa uiry dated ad 04.06.2	vices during ares for our d 30.05.202 2022	its Installation Neo Metaliks	n and Commis	sioning, Sup	ply of su	accessful Cor	Water Cannon mmissioning
	5/ Your Revised 0 6/ Final discussio								
	With reference to July, 2022 as refe the Purchase Ord Solutions (herein	above su erred abo ler (PO) ( after refe ist Water nmission	ubject and l ve, we, M/s herein afte erred as "Su Cannon ind ing Spares	based on our Neo Metaliks r may be refer upplier") for Do cluding Super and 2-Years o	Ettd. (herein a rred as "Order esign, Enginee vision Service of Spares requ	Ifter referred " / "Contract" ering, Manufa s during its Ir	as "Pure") on M/s acture, S nstallatio	chaser") are Control Sys Supply of 06 S on and Comn	tem & Control Sets Trolley nissioning, Supply
	The broad terms	and cond	litions of the	e Order are de	etailed below:	-			
	C. TAXES & DUT	IES:							
Taxes & Duties			e time of de	elivery over an	nd above the c	ontract price	as men	tioned in Cla	use No. B 1/ above
Taxes & Duties	1. GST as applica	able at the							
Taxes & Duties		id extra a	s applicabl						there is no loss of
Taxes & Duties	2. GST will be pa credit to Purchase credit.	id extra a	s applicabl						there is no loss of
	2. GST will be pa credit to Purchase credit.	id extra a	s applicabl						there is no loss of me of passing

Your general conditions of sale/services are not applicable to us . Your GST registration number should be quoted in your challan/invoice . Material/Services will be accepted only against submission of copy of Tax invoice.



Park Plaza.71 Park Street. 6F . North Block,Kolkata Pin - 700016 Tel : 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CtN No : U27109WB2003PLC097231

## SERVICE ORDER

PO.	Number : 3	322000561							Date : 2	0.11.	2023
M D 17, DUI Stat GST	IIs of service G Enterpris NEW SHYAN RGAPUR e Name : We FIN : 19ABFF tact Details :	e IPUR COLONY ROAD NO st Bengal Sti M7245P1ZI PAN :	).18 ateCode	19	Your n Our Ri RFQ N Contai	Reference aference : C aference : / lumber : ct Person : ct Number;	FFER / 28.	10.202	23		
M D 17, DUF Stat GST	RGAPUR e Name : We	IPUR COLONY ROAD NO	).18 ateCode	: 19	Neo M GOPA DURG State f GSTIN	To Address etaliks Limit LPUR APUR 7132 Name : Wes I : 19AABCN AABCN851	ed 12 t Bengal J8514G1ZE	5	ateCode :	19	
Sr.	Item	Description	Unit	HSN /	Ref.No	Quantity	Price /	Dis	Dis	Arr	nourit
No	Code	for the Ballier of States Party	1	SAC	1322009636	1	Unit	%	Amt	1	4000000
1		Installation of pipeline			10110000000	·			00 0.00 SST @ 9.00 SST @ 9.00		43,680.00 3,931.20 3,931.20
Abov	ve service line	contains below services :	S		-	1					
	3002451	INSTALLATION OF PIPES	INM			240,000	182.00				43,680,00
		Forty Three Thousand Six Hu			10		Val:Exd.	_		11	43,660.00
In w	ords : Rupees	Fifty One Thousand Five Hun	dred For	ty Two And	1 Palse Forty o	inly	Order Va	anne -			51,542.40
	e of Work	<ol> <li>The work is biogenetic to the second s</li></ol>	nobilize a ressary it inderstan derstan der suffic spection : in a VAL i rules, 10 a work a work to will be take care follow all a to follo ilites will g rules o	t site imme ems to do d the job it oproved by ient on too set. Crare shall be off ety norms - ID LISENC 971, before submitted safety nor w all neces be in your of mention	ediately after n the job would h totality and p Neo Engineer is & tackles, B etc. fered to NEO E and statutory n CE under the c commencem by you immed thy aspects of y me and ensure sary rules and scope. ed here shall t	aceipt of Worl be supplied b ropare job pla character job pla character job pla character job entities and the worl and the worl lately before in your employee a sit kind of so i regulation ur se applicable	k Order y you as pet r in including sp ne, lifting and ig erection an All PPE will b bur (R&A) Acts k and continu- commencents as working af ifely to your a ider law of lar as per prevail	equire becial t handii d align e in yo a 1970 ie to he orkers id e.g. ing ruk	ment of this pols & tack) ing equipme ment for re- nur scope. 2 & dontract ave a velid to vork. and superv Factory Act as of NML.	job, es, liftir ni, weik guiked c labour isonse isonse s, Labo	ng & carrying ding machine, Searance to (Regulation & until the
		1 Weigh Bridge 2 Pig Yard – Ins 3 Sinter Plant – 4 Sinter Plant – 5 Sinter Plant – 6 Sinter Plant/RI 2. Tentative Sco	– Near W ide Pig Y In front o Near Sin Near Cru IdHS – N	Veigh Bridg and – Cani f Iron Ore t for Ground sher & Sci ear Tail ES	e – Cannon-1 non-2 fines Yard/ Ne Hopper – Cai cen House – SP Stack / MBI	ar Head ESP nnon-4 Cannon-5	stack – Cann	ion-3			
- 8	PRIVOBROT	15.0.1977.85							DA		
	Prepared E								WI	n	pry?
10TE	: Please mention Your general o Your GST regt	order number, Unit of Measureme enditors of sala/services are not a stration number should be quoted as will be accepted only against s	in your ch	to us intentitivoice		atan/iwoick fo	r Goller paymar	il.	epprov	en ny	



Park Plaza,71 Park Street, 6F , North Block,Kolkata Pin - 700016 Tel : 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CIN No : U27109WB2003PLC097231

## PURCHASE ORDER

PO.N	lumber : 35	22001003							Date : 01.	11.2023
Duga Plot i HOW State GSTI	Is of supplies ar Steel Corp no. 105, at 12 /RAH e Name : Wes IN : 19AACFE act Details :	<b>oration</b> 2 J. N. Mukherjee Road t Bengal Stat	eCode	: 19	Your re Our Re RFQ N Contac	Reference : R ference : R ference : / umber : t Person : t Number:	EVISEDOF	FER/0	2.11.2023	
Duga Plot I HOW State GSTI	bing from add ar Steel Corpo no. 105, at 12 /RAH e Name : Wes IN : 19AACFE act Details :	oration 2 J. N. Mukherjee Road t Bengal Stat	eCode	: 19	Neo Me GOPAL DURGA State N GSTIN	APUR 7132 ame : West	ed 12 t Bengal l8514G1ZE	Stat	eCode : 19	
Sr. No.	Item Code	Description	Unit	HSN / SAC	Ref.No	Quantity	Price / Unit	Dis %	Dis. Amt.	Amount
1	CN30008556	M.S ERW PIPE 50 NB, HEAVY DUTY.	М	7306	1522000986	120.000	360.00	0.00	0.00	43,200.00
In wo	ords : Rupees F	Forty Three Thousand Two Hu	ndred or	nly	•		Val.Excl.	SGS	T @ 9.00 % T @ 9.00 %	
In wo	ords : Rupees F	Fifty Thousand Nine Hundred S	Seventy	Six only			Order Va	alue		50,976.00
Term	s & Conditio	ns : -					·			
Price	Basis	F O R DURGAPU	R TRAN	ISPORT.						
Taxes	& Duties	EXTRA @18% G	ST APPI	ICABLE.						
Freigh	nt	EXTRA @1500 FI	REIGHT	TO BE PA	ID.					
Paym	ent Terms	WITHIN 30 DAYS	AFTER	RECIEPT	OF METERIA	L.				
Delive	ery period	WITHIN 2 - 3 DAY	'S AFTE	R RECIEP	T OF PO.					
Inspe	ction	AT OURDURGAP	UR FAC	TORY.						
Reject	tion	IF METERIALS N	ОТ МАТ	CH AS ME	NTIONED IN	PO.				
Arbitı	ration & Juriso	liction Jurisdiction at Koll	kata.							

PRIYOBROTO SWAIN	RAJIV KR. SONI	
Prepared By		Approved By
NOTE : Please mention order number,Unit of Measureme Your general conditions of sale/services are not Your GST registration number should be quotec Material/Services will be accepted only against s	ent(UOM),HSN/SAC and A/C head in challan/invoice for fa applicable to us . i n your challan/invoice . ubmission of copy of Tax invoice.	ster payment .
		Page : 1 Of 1

Annexure- VI



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361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Enadi : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

DOC NO : QLS//SAMP/08-B/00

TC-6271

TEST REPORT						
Name & Address Of the Customer :	Report No.	: QLS/MR/A/23-24/C/546				
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023				
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/546-547				
P.S. : Kanksa, Durgapur	Sample Description	: Stack Flue Gas				
Paschim Bardhaman	Date of Performance(s)	: 17-25.09.2023				
장금 안 없었는 여자에게 걸 알 없다고 있는 것	Sample Mark	: Sinter Plant (Head ESP Inlet & Outlet)				
West Bengal – 713 212	Ref No. Date	: 3322000173, Dated: 10.04.2023				

Analysis Decula

Analysis Result		
Date & Time of Sampling : 15.09.2023 at 13.15 hrs Sampling done by : C.Sahoo Sampling Procedures : EPA/IS	Sample no : 546	Sample No : 547
A : General Information of Stack:     Stack connected to     Emission due to	: Sinter Plant (Head ESP Inlet) : Combustion BF Gas	: Sinter Plant (Head ESP Outlet) : Combustion BF Gas
Material of construction of Stack     Shape of Stack     Whether stack is provided with permanent platform     Generation Capacity	: MS : Circular : Yes	: MS : Circular : Yes
B : Physical Characteristic of Stack:         1       Height of Stack from ground level         2       Diameter of Stack at bottom         3       Diameter of Stack at sampling point         4       Height of the sampling point from ground level         5       Area of Stack	: 12.0 m : : 2.2 m : 12.0 m : 3.8029 m <sup>2</sup>	: 50.0 m : : 2.2 m : 37.25 m : 3.8029 m <sup>2</sup>
C : Analysis/Characteristic of Stack : 1 Fuel used : BF Gas 2. Fuel consum	nption : 3500 Nm <sup>3</sup> /hr	The second second second

D :	Results of Sampling & Analysis of gaseous Emission :	Method	Inlet Result	Outlet Result
1	Temperature of emission ( <sup>6</sup> C)	EPA Part 2	: 124	: 105
2	Barometric pressure (mm of Hg)	EPA Part 2	: 747	: 747
3	Velocity of gas (m/sec)	EPA Part 2	: 18.29	: 11.80
4	Quantity of gas flow (Nm <sup>3</sup> /hr)	EPA Part 2	: 175536	: 125086
5	Concentration of Carbon monoxide (%)	IS:13270-1992, Reaf : 2017	:<0.2	:<0.2
6	Concentration of Carbon dioxide (%)	IS:13270-1992, Reaf : 2017	:7.4	: 6.2
7	Concentration of Sulphur dioxide (mg/Nm3)	EPA Part-6	171.8	: 93.1
8	Concentration of Oxides of Nitrogen (mg/Nm <sup>3</sup> )	EPA Part-7	:81.0	: 49.7
9	Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	EPA Part 5	: 2911	: 38
Ε:	Pollution : Details of pollution control devices attached with the	stack	: Nil	: ESP

F: Remarks : Efficiency of ESP – 98%

Report Prepared by : (



----- End of the Report-----

The results relate only to the item(s) tested.

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361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Email : qualissure@gmail.com; info@qualissure.com : Mob.No. 98312 87086 : 9830093976

DOC NO : QLS//SAMP/08-8/00

Name & Address Of the Customer :	Report No.	: QL5/MR/A/23-24/C/548
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023
Viil + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/548-549
P.S. : Kanksa, Durgapur	Sample Description	: Stack Flue Gas
Paschim Bardhaman	Date of Performance(s)	: 17-25.09.2023
	Sample Mark	: Sinter Plant (Tail ESP Inlet & Outlet)
West Bengal - 713 212	Ref No. Date	: 3322000173, Dated: 10.04.2023

Ar	alysis Result		
Date & Time of Sampling : 15.09.2023 at 15.45 hrs Sampling done by : C.Sahoo Sampling Procedures : EPA/IS		Sample no : 548	Sample No : 549
A : General Information of Stack: 1 Stack connected to 2 Emission due to 3 Material of construction of Stack		: Sinter Plant (Tail ESP Inlet) : Process Activity : MS	: Sinter Plant (Tail ESP Outlet) : Process Activity : MS
Shape of Stack     Whether stack is provided with permanent platform     Generation Capacity	DIQUERTE IN	: Circular : Yes :	: Circular : Yes :
B : Physical Characteristic of Stack:         1       Height of Stack from ground level         2       Diameter of Stack at bottom         3       Diameter of Stack at sampling point         4       Height of the sampling point from ground level         5       Area of Stack         C : Analysis/Characteristic of Stack :		: 9.0 m : : 2.0 m : 9.0.0 m : 3.1429 m <sup>2</sup>	: 40.0 m : : 2.0 m : 35.0 m : 3.1429 m <sup>2</sup>
1 Fuel used :	2. Fuel consumption :	it	
D : Results of Sampling & Analysis of gaseous Emission :         1       Temperature of emission (°C)         2       Barometric pressure (mm of Hg)         3       Velocity of gas (m/sec)         4       Quantity of gas flow (Nm³/hr)         5       Concentration of Carbon monoxide (%)	Method EPA Part 2 EPA Part 2 EPA Part 2 EPA Part 2	Inlet Result : 103 : 747 : 15,93 : 134073 : 22	Outlet Result : 76 : 747 : 11.38 : 107968
6 Concentration of Carbon dioxide (%)	IS:13270-1992, Reaf : 2017 IS:13270-1992, Reaf : 2017	: <0.2 : 2.8	:<0.2

: 0.6 7 Concentration of Sulphur dioxide (mg/Nm3) EPA Part-6 :86.1 : 50.4 В Concentration of Oxides of Nitrogen (mg/Nm3) EPA Part-7 :66.9 : 34.0 Concentration of Particulate Matters (mg/Nm3) 9 EPA Part 5 : 3122 : 12 E: Pollution : : Nil : ESP Details of pollution control devices attached with the stack F: Remarks : Efficiency of ESP - 99%

Report Prepared by :

for Qualissure Laboratory Services **Reviewed & Authorized By** 



----- End of the Report-----

· The results relate only to the item(s) tested.

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E



361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107 Email : qualissure@gmail.com; info@qualissure.com; Mob.No. 98312 87086; 9830093976

DOC NO : QLS//SAMP/08-B/00

TC-6271

TEST REPORT				
Name & Address Of the Customer :	Report No.	: QLS/MR/A/23-24/C/550		
M/s. Neo Metaliks Ltd.	Date	; 25.09.2023		
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/550-551		
P.S. : Kanksa, Durgapur	Sample Description Date of Performance(s)	: Stack Flue Gas : 17-25.09.2023		
Paschim Bardhaman West Bengal – 713 212	Sample Mark	: Crusher/Screen House at sinter plant (Bag Filter Inlet & Outlet)		
	Ref No. Date	: 3322000173, Dated: 10.04.2023		

Ana	lysis	Result	

Date & Time of Sampling : 15.09.2023 at 16.30 hrs Sampling done by : C.Sahoo Sampling Procedures : EPA/IS	d. Antes	Sample no : 550	Sample No : 551
A : General Information of Stack:		2.2	
1 Stack connected to		: Crusher/Screen House	: Crusher/Screen House
2 Emission due to		(Bag Filter Inlet) : Process Activity	(Bag Filter Outlet : Process Activity
3 Material of construction of Stack		: MS	: MS
4 Shape of Stack		: Circular	: Circular
5 Whether stack is provided with permanent platform		: Yes	: Yes
6 Generation Capacity		1	2-1-1-1-1
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level		: 10.0 m	: 10.0 m
2 Diameter of Stack at bottom		1	1 ann
3 Diameter of Stack at sampling point		: 1.0 m	: 1.0 m
4 Height of the sampling point from ground level		110.0 m	: 2.0 m
5 Area of Stack	51A	: 0.7857 m <sup>2</sup>	: 0.7857 m <sup>2</sup>
C : Analysis/Characteristic of Stack :			
1 Fuel used 1	2. Fuel consumption :		
D : Results of Sampling & Analysis of gaseous Emission :	Method	Inlet Result	Outlet Result
1 Temperature of emission (°C)	EPA Part 2	: 76	: 65
2 Barometric pressure (mm of Hg)	EPA Part 2	: 747	: 747
3 Velocity of gas (m/sec)	EPA Part 2	: 6.25	: 4.79

EPA Part 2

IS:13270-1992, Reaf : 2017

IS:13270-1992, Reaf: 2017

EPA Part-6

EPA Part-7

EPA Part 5

: 14839

: <0.2

: <0.2

2 -----

1----

: 26

: Nil

4 Quantity of gas flow (Nm<sup>3</sup>/hr) 5 Concentration of Carbon monoxide (%) 6 Concentration of Carbon dioxide (%)

Concentration of Sulphur dioxide (mg/Nm<sup>3</sup>)
 Concentration of Oxides of Nitrogen (mg/Nm<sup>3</sup>)
 Concentration of Particulate Matters (mg/Nm<sup>3</sup>)

## E : Pollution :

Details of pollution control devices attached with the stack F : Remarks : Efficiency of Bag Filter - 95%

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

: 11741

:<0.2

: 0.6

2.000

÷.....

: <4.0

: Bag Filter



----- End of the Report----

· The results relate only to the item(s) tested.

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Annexure- VII



BOARD

## WEST BENGAL POLLUTION CONTROL BOARD

Paribesh Bhawan 10A, Block – LA, Sector III, Bidhannagar Kolkata - 700 106

Memo No. 393 - 2N-566/2003-PART-I

Dated 25.07.2022

From : Member Secretary, West Bengal Pollution Control Board

NOCN0171997

To: M/s, Neo Metakiks Limited, Park Plaza, 71, Park Street, North Block, Kolkata- 700 015, W.B.

Sub : Consent to Establish (NOC) from Environmental Point of View

Ref: 1) Your letter No. Nil ii) EC Identification No.EC22A008WB167040, File No.J-11011/779/2007-IA.II(I) dated 02.06.2022, issued by MoEP&dd, col. Dear Sirs, In response to the application for Consent to Establish (NOC) for proposed Unit of M/s Neo Metaliks Limited

for Canada and American and Upgradation of Pig Iron Manufacturing Plant to a 0.4 MTPA and inclusion of Steel Melting Shop( for details see Annexure) at Gopalpur, Dist.-Paschim Bardhaman, West Bengal.

this is to inform you that this Board hereby grants the Consent to Establish (NOC) from the environmental point of the above subject to the following conditions and special conditions and exed.

- The quality of sewage and trade etfluent to be discharged from your factory shall satisfy the permissible limits as prescribed in IS: 2490 (PLI) of 1974, and/or its subsequent amendment and Environment (Protection) Rules 1986.
- Suitable measures to treat your effluent shall be adopted by you in order to reduce the pollutional load so that the quality of the effluent satisfies the standards mentioned above.
- You shall have to apply to this Board for its consent to operate and discharge of sewage and trade effluent according to the provisions of the water (Prevention & Control of Pollution) Act, 1974. No sewage or trade effluent shall be discharged by you without prior consent of this Board.
- 4. All emission from your factory shall conform to the standards as laid down by this Board.
- No. emission shall be permitted without prior approval of this Board and you shall apply to this Board for its consent to operate and atmospheric emission as per provision of the Air (Prevention & Control Pollution) act, 1981.
- E. No industrial plant, furnace, flues, chimneys, control equipment, etc. shall be constructed/reconstructed/ erected/re-erected without prior approval of this Boen!

Chief Engineer W. B. Pollution Control Board Dept. of Environment, Govt. of W.B.

## NOC NO171997

7. You shall comply with

- Water (Prevention and Control of Pollution) Cess Act, 1977, if applicable. (i)
- Water (Prevention and Control of Pollution ) Cess Act, 1978, if applicable. (iii)
- (11) Environment (Protection) Act, 1986
- Environment (Protection) Rules, 1996 (iv)
- Hazardous Wastes (Management and Handling) Rules, 1989 and Amended Rules, 2000 (1)
- Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Amended Rules, 2000 (vii)
- Manufacture, Use, Import and Storage and Hazardous Micro-Organisms, Genetically Engineered Organisms (VE) or Cell Rules, 1989
- (viii) The Public Liability Insurance Act, 1991 and Amended Act, 1992
- (ix) The Public Liability Insurance Rules, 1991 and Amended Rules 1993
- Biomedical Wastes (Management & Handling) Rules, 1998 and Amended Rules 2000 if applicable. (x)
- $(\mathbf{x})$ Recycled Plastics Manufacture and Usage Rules 1999, if applicable and
- Ozone Depleting Substances (Regulation & Control) Rules, 2000, if applicable (xii)
- 8 You will have to abide by any other stipulations as may be prescribed by any authority/local bodies/Government Departments etc.

#### SPECIAL CONDITION :

#### see Annexure.

Gross Capital Investment - Rs.694,49,99,900/-

Any violation of the aforesaid conditions shall entail cancellation of this Consent to Establish (NOC)

Yours faithfully,

Member Secretary, / Ch West Bengal Pollution Control CELL)

Memo No. 893 -2N-566/2003-PART-I did. 25.07.2022 Chief Engineer Dated Pollution Control Board Copy forwarded for information to :

- Chief Inspector of Factories, Government of West Bengal, N. S. Building, Kolkata-700 001 1.
- Director of Industries/Director of Cottage & Small Scale Industries, Government of West Bengal, N. S. 2. Building, Kolkata-700 001
- Guard file, West Bengal Pollution Control Board. 3.

Environmental Engineer, I/II/Alipur R.O./Howrah R.O./Hooghly R.O./B.R.O./D.R.O./Haldia R.O./S.R.O./ 4: Asansol/ Sub-R.O./WBPC Board Vill, Panpur Sahid Khudiram Sarani 10, Camac Street Himalaya Bhawan

Delhi Road, Dankuni Dist. Hooghly

Paribesh Bhawan 10A, LA-Block, Sector-III Salt Lake City, Kolkata - 700 098

Kalyani Expressway P.O. Narayanpur Dist. 24 Pgs. (N)

City Centre, Durgapur-16 Dist. Burdwan

Paribahan Nagar

Matigara, Siliguri

**Dist.-Darjeeling** 

2nd Floor Kolkata-700 017

Block-05 at 40 Flats Complex

Adjacent to Priyambada Housing Estate P.O.: Khanjanchak, P.S. Durgachak Haldia-721602 Dist. : Purba Medinipur

Satya Chowdhury Indoor Stadium Balurchar Bandh Road Malda-732101

Asansol Sub-Regional Office ADDA Commercial Market (2nd Floor) Opposite Asansol Fire Station G.T. Road, Asansol-713 301

3/08/

Member Secretary Shifte West Bengal Pollution Control Board

Chief Engineer W. B. Bellution Control Board Dept. of Environment, Govt. of W.B.

## Annexure I to NOC SI. No. - NO171997

Special Conditions issued to - M/s. Neo Metaliks Limited (Expansion Project) at Gopalpur, Tehsil – Durgapur, Dist – Paschim Brdhaman, West Bengal

### Emission :-

sı	tails of units Description	Capacity	Production Capacity	Product	Stack Height Details	Pollution Control System
1	DG Set	1X1250 KVA	Backup power	æ	37.7 mtr	Acoustic Enclosure & Exhaust Mufflet
2	Mini Blast Furnace	215 Cu.M will be upgraded to 350 Cu.M	4,22,000 TPA	Pig Iron / Hot Metal	Stove - 60mtr Cast House - 30mtr	Bag filter system
3	Sinter Plant	Existing 33 Sq.Mtr. Along with New 36 Sq. Mtr.	5,69,700 TPA	Sinter	Head ESP - 50mtr Tail ESP - 40mtr Separate for Existing and New	Electro-Static Precipitator with appropriate capacity
4	Pulverized Coal Injection	120 Kg will be upgraded to 170 Kg	56,700 TPA	PCI Coal	Bag Filter - 41.9mtr	Bag filter system
5	Captive Power Plant	Existing 4.5MW will become stand by with additional New 10MW	10 MW	Power	Boiler - 30mtr	Low Nox Burner
6	Oxygen Plant	250 T	87,500 TPA	Oxygen	Vent pipe- 20mtr	NIL
7	Zero Power Furnace	50 T	4,16,000 TPA	Liquid Steel	30mtr	Bag filter system
8	Ladia	50 T	50 T	Refined Liquid Steel	30mtr	Bag filter system
9	Caster	4 strand - 6/11	4,07,500 TPA	Billets	30mtr (Common with ZPF)	Bag filter system
10	Rolling Mill + Wire Rod Mill	TMT + Wire	4,00,000 TPA	TMT Rebars + Wire Rods	40mtr	Released through chimney after controlling SO as per CPCV Norms
11	Vacuum Degassing Furnace	50 T	50 T	Refined Liquid Steel	30mtr (Vent stack equipped with a flare burner)	Exhaust gase from Hot Well

W. B. Pollution Control Board Dept. of Environment, Govt. of W.B.

### Annexure I to NOC SI. No. - NO171997

## Special Conditions issued to - M/s. Neo Metaliks Limited (Expansion Project) at Gopalpur, Tehsil -Durgapur, Dist – Paschim Brdhaman, West Bengal

- 1) Stacks should have sampling port, platform and ladder as per the Emission Regulation Part-III of CPCB. Particulate emission from all stacks shall be less than 30mg/Nm3
- The National Ambient Air Quality Emission Standards issued by MoEF vide G.S.R 826(E) dated 16<sup>th</sup> November, 2009 should be complied with.
- 3) Dry fog system and water sprinklers to be installed to arrest fugitive emission.
- 4) 24X7 continuous emission monitoring system at process stacks to be installed and as well as three Continuous Ambient Air Quality Station for monitoring AAQ parameters to be installed.

### Effluent :-

- 1) Process To be treated in ETP. Treated effluent to be recycled as much as possible. Remaining treated water from ETP to be used in slag quenching section of SMS. Blow down water to be used in slag granulation plant.
- 24X7 continuous effluent monitoring system to be installed.
- 3) Cooling water to be recycled after settling. Domestic - to be treated in STP
- 5) ZLD system to be achieved

#### Solid Waste : -

- Slag to be used for road filling.
- Bag Filter dust to be reused in different processes.
- 3) Fly ash to be given to cement manufacturing/brick making units,

#### General :-

- Noise Control Ambient noise level not to exceed the permissible limit.
- 2) No additional machineries / equipment can be installed without prior permission from the State Board.
- 3) No change in raw materials, products and production capacity should be made without prior permission from the State Board.
- Plant layout should be as per EIA Report/DPR submitted during EC process.
- 5) Proper lighting and proper pathway inside the factory premises should be constructed.
- 6) Adequate measures to be adopted for control of fugitive emission.
- 7) The unit should not start operation without obtaining 'Consent to Operate' from the State Board after complete installation of pollution control devices.
- 8) The unit should obtain permission from the District level authority for ground water abstraction, if any, as per The West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005; before applying for 'Consent to Operate' to this Board.
- 9) The unit should obtain Land Conversion Certificate from the competent authority, if applicable, before starting construction activities.
- 10) No construction is permitted on the land parcels, not under the possession of the industry,
- 11) At least 36% of the project area should be under green belt.
- 12) Rain water harvesting must be done however recharging of harvested rain water is not allowed under any circumstances.
- 13) All conditions as Imposed by MoEF, Gol through their Environmental Clearance issued vide EC Identification No. - EC22A008WB167040 File No. J-11011/779/2007-IA-II(1), Dated 02/06/2022 shall be strictly complied with.
- Good house-keeping to be maintained.
- 15) This NOC is valid up to 31.07.2029 for setting up the unit.

23/00/2002

Chief Engineer (EIM Cell) West Bengal Pollution Control Board Chief Engineer W. B. Pollution Control Board Dept. of Environment, Govt. of W.B.

## Annexure- VIII





Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 700 016 TeL: + 91 33 4050 4050, Fax: + 91 33 2217 7317, E-mail: Info@neometaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PLC097231

## PURCHASE ORDER

## NML/BGTG/MBF-03/03062022

Dated: 06th June, 2022

To,

M/s Beijing Global Technotrade Group (BGTG). (herein after referred to as "Supplier") Room no 763, Poly Plaza, No.14 Dongzhimen South Street, Dongecheng District, Beijing 100027, China

Email: john@sinoindia.cn

### Kind Attn: Mr. Carson John-Director (+86-13810934838)

Subject: Purchase Order for Design, Engineering, Manufacturing, Supply of DRY Gas Cleaning Plant (GCP) - 1 Set on FOB China basis including the Supervision Services, Successful Commissioning Spares & 2-Years spares for "268 m3 Blast Furnace required at our Neo Metaliks Limited (herein after referred to as "Purchaser"), Durgapur Plant.

### References:-

- 1/ Our Enquiry 18th October '21 & your offer dtd 22nd October '2021.
- 2/ Your revised technical and commercial proposal dtd 28<sup>th</sup> October 2021 & email dtd 20<sup>th</sup> Nov' 2021.
- 3/ Various correspondences & techno-commercial proposals & Our Comments dtd. 1<sup>st</sup> Dec' 2021.
- 4/ Revised Offer Dtd. 17<sup>th</sup> Dec'2021 & DRY GCP parameter tabulation dtd. 20<sup>th</sup> Dec'2021.
- 5/ Technical and Commercial offer dtd. 4<sup>th</sup> Jan'2022 & reference list of DRY GCP dtd.8<sup>th</sup> Jan'2022.
- 6/ Various Commercial offer dtd.08.03.22, 28.03.22, 02.04.2022, 16.04.2022 & 26.04.2022
- 7/ Scope Matrix confirmation vide email dtd. 2<sup>nd</sup> Aprl'2022, discussions ending with commercial finalization over VC with our CFO on 5<sup>th</sup> May'2022. Finally, your e mail confirmation dtd. 6<sup>th</sup>May' 2022.

Dear Sirs,

With reference to above subject & based on our various discussions ending with final commercial email dated 6<sup>th</sup> May'2022 as referred above, we are pleased to issue the Purchase Order for <u>Design</u>, <u>Engineering</u>, <u>Manufacturing</u>, <u>Supply of DRY Gas Cleaning</u> Plant (GCP) - 1 Set "on FOB China basis including the Supervision Services, Commissioning Spares and 2-Years spares for "268 m3 Blast Furnace required at Neo Metaliks Limited (herein after referred to as "Purchaser"), Durgapur Plant.

The broad terms & conditions are detailed below:-

## A. SCOPE OF WORK:

Scope of work shall include broadly following but not limited to:-

"Design, Engineering, Manufacturing, Supply of DRY GCP – 1 Set on FOB China basis including Commissioning Spares along with 2-Years Spares required at our Neo Metaliks Limited, (herein after referred to as "Purchaser"), Durgapur Plant. Detailed Scope of work, Specifications of the Equipment's & Scope of supply along with other Documents required shall be as per "Annexures" mentioned below.

Any supplies / scope of work in Annexure(s) not specifically mentioned herein but required to complete facility of DRY GCP will be in Supplier's scope in order to achieve the agreed guaranteed parameter of DRY GCP and its successful commissioning.

The quantity indicated in the various corresponding references (mention above) is minimum indicative and any additional quantity or any additional scope / items during detailed engineering which is required for completing the scope as agreed to achieve guaranteed performance shall be in Supplier's account.

### Spares: (i) Commissioning Spares (ii) 2 Years Spares

Supplier shall supply required commissioning spares along with equipment supply. Supplier further agreed that in case any of the 2-Years O & M spares are consumed during commissioning (if ordered by Purchaser later), it shall be replaced without any cost to Purchaser.

Supervision Service: All supervision services required during erection, testing, commissioning and performance guarantee test till the period Final Acceptance Certificate will be issued by the Purchaser to the Supplier. Supplier shall also undertake to provide required training to Purchaser's personnel for smooth operation and maintenance of the Equipment.

### B. CONTRACT PRICE:

Total price for the above scope of work as detailed (in Clause A above and Annexures) shall be USD 1,100,000 (In Words US Dollar One Million One Hundred Thousand only)" on FOB, China Port basis.

### Price Break up:

 Supply price on FOB, China Port Basis – USD 1,100,000 (In Words US Dollar One Million One Hundred Thousand only)"

1.1	Supply Value (FOB, China Port Basis)	: USD 1,100,000
1.2	Packing & Forwarding (Sea Worthy & Multiple Handling)	: Inclusive in above Price
1.3	Commissioning Spares	: Inclusive in above Price
1.4	Supervision Services	: Inclusive in above Price
1.5	2-Years spares	: Inclusive in above Price
	Total Contract Price	: USD 1.100.000

otal Contract Price

## PRIMA EQUIPMENT

Designer & Manufacturer: Pollution & Environment Monitoring Equipment



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## **TEST/ CALIBRATION CERTIFICATE**

DOC.REI	DOC.REF.NO.: PE/SR/FM/05		REV:	01/WEF: 01-09-2018
CERTIFIC	CATE NO.:	PE/2K23-06/85	DATED:	05.06.2023
CUSTON	IER NAME:	M/S. NEO METALIKS LIMITED.		
ADDRES	S:	Village: Gopalpur, Po.: Gopalpu Burdwan(Bardhaman), West Be	r, Via. Durgapur, Br ngal-713212, India	udwan, Purba
CUSTON	IER PO NO.:	3322000238	DATED:	23.05.2023
INSTALL		STACK-1-SINTER (Head ESP)	DATE OF INSTALLATION:	30.01.2018
ACCURA	CY:	± 2% At Constant Temperature	OPERATING TEMPRATURE:	0 - 50°C
INST. SE	RIAL NO .:	1801011	MODEL:	PE-SPMMS-C91
SR. NO.		PTION OF TEST/ EVALUATION	CRITERIA	RESULT
1.	Resolution: 1	The second s	Tested	ОК
2.	A REAL PROPERTY AND A REAL	play / Indicator	Working	ОК
3.	Actuator Swit	200	Functioning	OK
4.		In disconnected state of sensor)	0.0000	ОК
5.	PE-1 Output (In disconnected state of sensor)		0.0000	ОК
6.		In disconnected state of sensor)	0.0000	ОК
7.	BS Output (In disconnected state of sensor)		12 mV	OK
8.		In disconnected state of sensor)	-25 mV	OK
9.	TP-4 Output (	In disconnected state of sensor)	-20 mV	OK
10.	TP-5 Output (	in disconnected state of sensor)	-10 mV	OK
11.	TP-7 Output (	in disconnected state of sensor)	-125 mV	OK
12.	connected)	output (When Load cell	8 V	ок
13.		it on Zero input	4 mA	ОК
14.	(When Load C	Output on Full Scale Input ell Connected)	20 mA	ОК
15.	R\$485 Modbu		Functioning	ОК
16.	Full Scale Disp Connected)	lay of panel (when Load Cell	Functioning	ок
17.	Overall Test		Functioning	OK ·
Date of Ca	alibration	05.06.2023	Due Date	04.12.2023
ested By	_	Sounder Dece	Test Date	05.06.2023
Authorize	d By	mitmalide of	Date	05.06.2023

© Corp. Office : 21, 3<sup>rd</sup> Floor. Lohane Building, Raopura, Vadodara - 390 001, Gujarat, India

🧐 Unit T : Block No. 128. Dabhasa - Umraya Road. Opp. 2ydus Lifesciences Limited., Village: Dabhasa, Tal: Padra, Dist.: Vadodara - 391 440. India.

👰 Unit 2 : Block No. 492, Dabhasa - Umraya Road, Opp. Zydus Lifesciences Limited., Village: Umraya, Tel: Padra. Dist.: Vadodara - 391 440, India.

🖶 www.primagroupindia.com 🖾 info@primaequipment.com 🧧 +91 98250 07809 1+91 79896 87000 | +91 265 2416938

160/90012015 150/140012015 190/450012018

## PRIMA EQUIPMENT

Designer & Manufacturer: Pollution & Environment Monitoring Equipment



.

## **TEST/ CALIBRATION CERTIFICATE**

DOC.REP	C.REF.NO. PE/SR/FM/05		REV:	01/WEF: 01-09-2018
CERTIFIC	CATE NO.:	PE/2K23-06/86	DATED:	05.06.2023
CUSTOMER NAME: M/S. NEO METALIKS LIMITED.		Annotation of the second	- Accession of the	
ADDRES	S:	Village: Gopalpur, Po.: Gopalpu Burdwan(Bardhaman), West Be		rdwan, Purba
CUSTON	IER PO NO.	The second se	DATED:	23.05.2023
INSTALL		STACK-4-SINTER (For Tail ESP)	DATE OF INSTALLATION:	10.09.2018
ACCURA	CY:	± 2% At Constant Temperature	OPERATING TEMPRATURE:	0 – 50°C
INST. SE	RIAL NO .:	1808038	MODEL:	PE-SPMMS-C91
SR. NO.	DES	CRIPTION OF TEST/ EVALUATION	CRITERIA	RESULT
1.		Range: 0 - 1000 mg/Nm <sup>3</sup> , n: 1 mg/Nm <sup>3</sup>	Tested	ОК
2.	Graphical	Display / Indicator	Working	ОК
3.	Actuator S	witch	Functioning	OK
4.	TP-1 Output (In disconnected state of sensor)		0.0000	OK
5.	PE-1 Output (In disconnected state of sensor)		0.0000	OK
6.	PE-2 Outp	ut (In disconnected state of sensor)	0.0000	OK .
7.		ut (In disconnected state of sensor)	12 mV	OK
8.		ut (In disconnected state of sensor)	-25 mV	OK
9.	TP-4 Output (In disconnected state of sensor)		-20 mV	ОК
10.	TP-5 Outp	ut (In disconnected state of sensor)	-10 mV	OK
11.	Contraction of the second sector in the second sector in	ut (In disconnected state of sensor)	-125 mV	ОК
12.	Mother ca connected	rd's output (When Load cell )	8 V	ок
13.	Construction of the International Academic Sciences	atput on Zero input	4 mA	OK
14.	4-20 mA Card Output on Full Scale Input (When Load Cell Connected)		20 mA	ок
15.	RS485 Mo	dbus RTU output	Functioning	OK
16.	Full Scale I Connected	Display of panel (when Load Cell )	Functioning	ок
17.	Overall Te:	st	Functioning	OK.
Date of C	alibration	05.06.2023	Due Date	04.12.2023
fested By	1	Soumyce Dus.	Test Date	05.06.2023
Authorize	d By	munetado	Date	05.06.2023

🎯 Corp. Office : 21.3" Floor, Lohana Building, Raopura, Vadodara - 390 001, Bujarat, India

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🦁 Unit 2 : Block No. 482, Dabhasa - Umraya Road, Opp. Zydus Lifesciences Limited., Village: Umraya, Tal: Padra, Dist.: Vadodara - 391 440. India.

## PRIMA EQUIPMENT Designer & Manufacturer: Pollution & Environment Monitoring Equipment



DOC.RE	F.NO.:	PE/SR/FM/05	REV:	01/WEF: 01-09-2018
CERTIFICATE NO .: PE/2K23-06/87		DATED:	05.06.2023	
CUSTON	AR NAME:	M/S. NEO METALIKS LIMITED.	Lashazi	03.00.2023
ADDRES	iS:	Village: Gopalpur, Po.: Gopalpu Burdwan(Bardhaman), West Be	r, Via. Durgapur, Br ngal-713212, India	udwan, Purba
CUSTON	AER PO NO .:	3322000239	DATED:	23.05.2023
INSTALL		STACK-3_CPP-Boiler	DATE OF INSTALLATION:	04.08.2018
ACCURA	ICY:	± 2% At Constant Temperature	OPERATING TEMPRATURE:	0 – 50°C
INST. SE	RIAL NO .:	1807028	MODEL:	PE-SPMMS-C91
SR. NO.	DESCRI	PTION OF TEST/ EVALUATION	CRITERIA	RESULT
1.	PM/DUST Ra Resolution: 1	nge: 0 - 1000 mg/Nm <sup>3</sup> , mg/Nm <sup>3</sup>	Tested	ОК
2.	Graphical Dis	play / Indicator	Working	ОК
3.	Actuator Swit	ch	Functioning	ОК
4.	<ol><li>TP-1 Output (In disconnected state of sensor)</li></ol>		0.0000	ОК
5.		In disconnected state of sensor)	0.0000	ОК
6.	PE-2 Output (	In disconnected state of sensor)	0.0000	ОК
7.		In disconnected state of sensor)	12 mV	OK
8.		In disconnected state of sensor)	-25 mV	ОК
9.		In disconnected state of sensor)	-20 mV	OK
10.		In disconnected state of sensor)	-10 mV	OK
11.		In disconnected state of sensor)	-125 mV	ОК
12.	connected)	s output (When Load cell	8 V	ок
13.	4-20mA output	ut on Zero input	4 mA	ОК
14.	(When Load C	Output on Full Scale Input ell Connected)	20 mA	ОК
15.	RS485 Modbu		Functioning	OK
<ol> <li>Full Scale Display of panel (when Load Cell Connected)</li> </ol>		Functioning	ок	
17.	Overall Test	10 Miles	Functioning	ОК
Date of C	alibration	05.06.2023	Due Date	04.12.2023
Tested By	/	Soumger Der	Test Date	05.06.2023
Authorize	ed By	mindelade	Date	05.06.2023

## TEST/CALIDDA

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ISD 9001/2015 ISO 14001/2015 ISO 45001/2018

PRIMA EQUIPMENT Designer & Manufacturer: Pollution & Environment Monitoring Equipment



.

## **TEST/ CALIBRATION CERTIFICATE**

DOC.RE	EF.NO. PE/SR/FM/05		REV:	01/WEF: 01-09-2018
CERTIFIC	CATE NO.:	PE/2K23-06/88	DATED:	05.06.2023
CUSTOMER NAME: M/S. NEO METALIKS LIMITED.				
ADDRES				dwan, Purba
CUSTON	MER PO NO .:	3322000239	DATED:	23.05.2023
INSTALL	Children Children	STACK-2-Mini Blast Furnace	DATE OF INSTALLATION:	30.01.2018
ACCURA	ICY:	± 2% At Constant Temperature	OPERATING TEMPRATURE :	0-50°C
INST. SE	RIAL NO.:	1801010	MODEL:	PE-SPMMS-C91
SR. NO.	DES	CRIPTION OF TEST/ EVALUATION	CRITERIA	RESULT
1.		Range: 0 - 1000 mg/Nm <sup>3</sup> , : 1 mg/Nm <sup>3</sup>	Tested	ок
2.	the second se	Display / Indicator	Working	ОК
3.	Actuator S	witch	Functioning	ОК
4.	TP-1 Output (In disconnected state of sensor)		0,0000	ОК
5.		it (In disconnected state of sensor)	0.0000	OK
б.		it (In disconnected state of sensor)	0.0000	ОК
7.		t (In disconnected state of sensor)	12 mV	ОК
8.		it (In disconnected state of sensor)	-25 mV	ОК
9.	TP-4 Output (In disconnected state of sensor)		-20 mV	OK
10.		t (In disconnected state of sensor)	-10 mV	OK
11.		t (In disconnected state of sensor)	-125 mV	OK
12.	connected)		8 V	ОК
13.	Construction of the local division of the lo	tput on Zero input	4 mA	ОК
14.		rd Output on Full Scale Input d Cell Connected)	20 mA	ок
15.	and the second se	bus RTU output	Functioning	ОК
16.	Full Scale D Connected	isplay of panel (when Load Cell	Functioning	ок
17.	Overall Tes		Functioning	OK .
Date of C	alibration	05.06.2023	Due Date	04.12.2023
ested By	1	Solimia des	Test Date	05.06.2023
Authorize	rd By	post market /21	Date	05.06.2023

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DOC NO : QLS//SAMP/08-B/00

## TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/MR/A/23-24/C/186
M/s. Neo Metaliks Ltd.	Date	: 03.06.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/186
	Sample Description	: Stack Flue Gas
.P.S. : Kanksa,Durgapur	Date of Performance(s)	: 26.05.2023-02.06.2023
Paschim Bardhaman	Sample Mark	: CPP
West Bengal - 713 212	Ref No. Date	: W122505-006,Dated: 05.05.2022

## Analysis Result

Date & Time of Sampling : 22.05.2023 at 12:40 Sampling done by : P.Mandal	Sampling Pro	ocedures : EPA/IS
A : General Information of Stack:		
1 Stack connected to	: CPP	
2 Emission due to	: Combustion F	O & RE Gas
3 Material of construction of Stack	: MS	o a bi das
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform	: Yes	
6 Generation Capacity	: 4.5 MW	
B : Physical Characteristic of Stack:		
1 Height of Stack from ground level	: 50.0 m	
2 Diameter of Stack at bottom		
3 Diameter of Stack at sampling point	: 1.4 m	
4 Height of the sampling point from ground level	: 31.0 m	
5 Area of Stack	: 1.54m <sup>2</sup>	
C : Analysis/Characteristic of Stack :	0.000000000	
<ol> <li>Fuel used :BF Gas&amp;Furnace Oil</li> </ol>	2. Fuel consun	nption : BF Gas- 24000 Nm³/hr
D : Results of Sampling & Analysis of gaseous Emission :	Result	Method
1 Temperature of emission (°C)	: 144	EPA Part 2
2 Barometric pressure (mm of Hg)	: 759	EPA Part 2
3 Velocity of gas (m/sec)	: 9.62	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr)	: 38044	EPA Part 2
5 Concentration of Carbon monoxide (%)	: <0.2	I5:13270-1992, Reaf : 2017
6 Concentration of Carbon dioxide (%)	: 6.2	IS:13270-1992, Reaf : 2017
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	: 18.1	EPA Part-6
8 Concentration of Oxides of Nitrogen (mg/Nm <sup>3</sup> )	: 33.2	EPA Part-7
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	: 15	EPA Part 5
E : Pollution :		15 AM 21 ISO 16 AM
Details of pollution control devices attached with the stack	: NIL	
F :Remarks : Nil		

for Qualissure Laboratory Services Reviewed & Authorized By

Aspen

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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DOC NO : QLS//SAMP/08-B/00

## **TEST REPORT**

Name & Address Of the Customer :	Report No.	: QLS/A/23-24/C/187
M/s. Neo Metaliks Ltd.	Date	: 03.06.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/23-24/187
P.S. : Kanksa, Durgapur	Sample Description	: Stack Flue Gas
	Date of Performance(s)	: 26.05.2023-02.06.2023
Paschim Bardhaman	Sample Mark	: Sinter Plant (Head ESP)
West Bengal – 713 212	Ref No. Date	: W122505-006, Dated: 05.05.2022

#### Analysis Result

Date & Time of Sampling : 22.05.2023 at 13:05 Sampling done by : P.Mandal	Sampling Pro	cedures : EPA/IS
A : General Information of Stack:		
1 Stack connected to	: Sinter Plant (H	lead FSPI
2 Emission due to	: Combustion B	NO 7224 10 124 00
3 Material of construction of Stack	: MS	( Guy
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform	: Yes	
6 Generation Capacity	2	
B : Physical Characteristic of Stack:		
1 Height of Stack from ground level	: 50.0 m	
2 Diameter of Stack at bottom	:	
3 Diameter of Stack at sampling point	: 2.2 m	
4 Height of the sampling point from ground level	: 37.25 m	
5 Area of Stack	: 3.8029 m <sup>2</sup>	
C : Analysis/Characteristic of Stack :		
1 Fuel used : BF Gas	2. Fuel consum	ption : 3500 Nm <sup>3</sup> /hr
D : Results of Sampling & Analysis of gaseous Emission :	Result	Method
<ol> <li>Temperature of emission (°C)</li> </ol>	: 159	EPA Part 2
2 Barometric pressure (mm of Hg)	: 759	EPA Part 2
3 Velocity of gas (m/sec)	: 11.78	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr)	: 111058	EPA Part 2
5 Concentration of Carbon monoxide (%)	: <0.2	IS:13270-1992, Reaf : 2017
6 Concentration of Carbon dioxide (%)	: 5.4	I5:13270-1992, Reaf : 2017
.7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	: 38.1	EPA Part-6
8 Concentration of Oxides of Nitrogen (mg/Nm <sup>3</sup> )	: 52.4	EPA Part-7
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	: 50	EPA Part 5
E : Pollution :		TISSUARCH-MANY C
Details of pollution control devices attached with the stack	: ESP	
F : Remarks : Nil		
Report Prepared by :	· Core	Qualizzana Laborator C

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

Boken

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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## TEST REPORT

DOC NO : QLS/SAMP/08-B/00

	ILSI KEPU	<u>JKI</u>	
Name & Address Of the Customer : M/s. Neo Metaliks Ltd. Vill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman West Bengal – 713 212	Report No. Date Sample No. Sample Descripti Date of Performa Sample Mark Ref No. Date		: QLS/A/23-24/C/188 : 03.06.2023 : QLS/A/23-24/188 : Stack Flue Gas : 26.05.2023-02.06.2023 : Sinter Plant (Tail ESP) : W122505-006, Dated: 05.05.2022
	Analysis Res	ult	000, 000, 0000, 00.00, 2022
Date & Time of Sampling : 22.05.2023 at 13: Sampling done by : P.Mandal	45	San	npling Procedures : EPA/IS
A : General Information of Stack: 1 · Stack connected to 2 Emission due to 3 Material of construction of Stack 4 Shape of Stack 5 Whether stack is provided with permane 6 Generation Capacity	ent platform		ular
B : Physical Characteristic of Stack:     Height of Stack from ground level     Diameter of Stack at bottom     Diameter of Stack at sampling point     Height of the sampling point from groun     Area of Stack	d level	: 40.0	m
C : Analysis/Characteristic of Stack :			
1 Fuel used :		2. Fue	el consumption :
<ul> <li>D: Results of Sampling &amp; Analysis of gaseous</li> <li>Temperature of emission (°C)</li> <li>Barometric pressure (mm of Hg)</li> <li>Velocity of gas (m/sec)</li> <li>Quantity of gas flow (Nm<sup>3</sup>/hr)</li> <li>Concentration of Carbon monoxide (%)</li> <li>Concentration of Carbon dioxide (%)</li> <li>Concentration of Sulphur dioxide (mg/N)</li> <li>Concentration of Oxides of Nitrogen (mg</li> <li>Concentration of Particulate Matters (mj</li> <li>E: Pollution : Details of pollution control devices attact</li> </ul>	m <sup>3</sup> } //Nm <sup>3</sup> } g/Nm <sup>3</sup> )	Resul 95 759 9.43 862 <0.2 <0.2 <0.2 8.8 30.0 69 ESP	EPA Part 2 EPA Part 2 EPA Part 2 54 IS:13270-1992, Reaf : 2017 IS:13270-1992, Reaf : 2017 EPA Part-6 EPA Part-7 EPA Part 5
F : Remarks : Nil	and the stack	1 6 3 6	
port Prepared by :		-	for Qualissure Laboratory Services

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The reserved part of sample(s), except perishable sample(s), shall be retained for 30 days from the data of impossible in the

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DOC NO : QLS/SAMP/08-B/00

## TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/23-24/C/189
M/s. Neo Metaliks Ltd.	Date	: 03.06.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/23-24/189
P.5. : Kanksa, Durgapur	Sample Description	: Stack Flue Gas
Paschim Bardhaman	Date of Performance(s	) : 25.05.2023-02.06.2023
	Sample Mark	: Vertical Roller Mill through Bag Filter
West Bengal – 713 212	Ref No. Date	: W122505-006,Dated: 05.05.2022
	Analysis Result	
Date & Time of Sampling : 22.05.2023 at 1	14:30	Sampling Procedures · FPA/IS

Sampling done by : P.Mandal	Sampling Pro	cedures : EPA/IS
A : General Information of Stack:		
1 Stack connected to	: Vertical Roller	Mill through Bag Filter
2 Emission due to		of pulverized Coal using BF Gas
3 Material of construction of Stack	: MS	in particular con using of day
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform	: Yes	
6 Generation Capacity	2	
B : Physical Characteristic of Stack:		
1 Height of Stack from ground level	: 42.6 m	
2. Diameter of Stack at bottom	â	
3 Diameter of Stack at sampling point	: 0.820 m	
4 Height of the sampling point from ground level	: 25.6 m	
5 Area of Stack	: 0.5283 m <sup>2</sup>	
C : Analysis/Characteristic of Stack :		
1 Fuel used : BF Gas	2. Fuel consump	tion : 750 Nm <sup>3</sup> /hr
D : Results of Sampling & Analysis of gaseous Emission :	Result	Method
1 Temperature of emission (°C)	: 83	EPA Part 2
2 Barometric pressure (mm of Hg)	: 759	EPA Part 2
3 Velocity of gas (m/sec)	: 14.92	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr)	: 23750	EPA Part 2
5 Concentration of Carbon monoxide (%)	: <0.2	IS:13270-1992, Reaf : 2017
6 Concentration of Carbon dioxide (%)	: 4.6	IS:13270-1992, Reaf : 2017
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	:<3.4	EPA Part-6
8 Concentration of Oxides of Nitrogen (mg/Nm <sup>3</sup> )	: 18.9	EPA Part-7
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	:27	EPA Part 5
E : Pollution :	141.777	100,200,000 (100)
Details of pollution control devices attached with the stack F : Remarks : Nil	: Bag Filter	
r : Nemarks : Nil		

Report Prepared by :

1

for Qualissure Laboratory Services Reviewed & Authorized By

BARESY

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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TEST REPORT



## DOC NO : QLS/SAMP/08-B/00

	TEST REPO	<u>N1</u>	
Name & Address Of the Customer :	Report No	h.	: QLS/A/23-24/C/190
M/s. Neo Metaliks Ltd.	Date		: 03.06.2023
/ill + P.O. : Gopalpur	Sample No	D.	: QLS/A/23-24/190
2.S. : Kanksa, Durgapur	Sample De	escription	: Stack Flue Gas
aschim Bardhaman		rformance(s)	: 26.05.2023-02.06.2023
West Bengal – 713 212	Ref No. Da		: W122505-006, Dated: 05.05.202
and the second sec	Analysis Resu	50	. W122303 000, Dated. 03.05.202
Date & Time of Sampling : 23.05.2023 at 12:05	C		A 625000
ampling done by : C.Sahoo		Sampling Pro	ocedures : EPA/IS
: General Information of Stack:			
1 Stack connected to		: MBF Plant (Bl	ast Furnace)
2 Emission due to		: Combustion I	
3 Material of construction of Stack		: MS	
4 Shape of Stack		: Circular	
5 Whether stack is provided with permanent pla	atform	: Yes	
5 Generation Capacity		I I	
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level		: 50.0 m	
2 Diameter of Stack at bottom		4	
3 Diameter of Stack at sampling point	8	: 2.29 m	
4 Height of the sampling point from ground level	el	: 26.82 m	
5 Area of Stack		: 4.1204 m <sup>2</sup>	
: Analysis/Characteristic of Stack :	100000 VC	55	
1 Fuel used : BF Gas & Coke2. Fuel consumption	on : 40000 m <sup>3</sup> /h		
): Results of Sampling & Analysis of gaseous Emi 1 Temperature of emission (°C)	ission :	Result	Method
		: 180	EPA Part 2
2 Barometric pressure (mm of Hg) 3 Velocity of gas (m/sec)		: 759	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr)		: 10.76	EPA Part 2
5 Concentration of Carbon monoxide (%)		: 104805	EPA Part 2
6 Concentration of Carbon monoxide (%) 6		: <0.2	IS:13270-1992, Reaf : 2017
		:7.4	IS:13270-1992, Reaf : 2017
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	1.	: 40.9	EPA Part-6
8 · Concentration of Oxides of Nitrogen (mg/Nm	751	: 47.1	EPA Part-7
9 Concentration of Particulate Matters (mg/Nm	14)	: 34	EPA Part 5
E : Pollution : Details of pollution control devices attached v	with the stack	· Cyclona Sena	rator, Saturator &Ventury scrubber
F :Remarks : Nil	and the stock	i cycione sepa	nator, saturator exventury scrubber
eport Prepared by :		(m	Qualissure Laboratory Services

for Qualissure Laboratory Services Reviewed & Authorized By

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(Benimadhab Gorai, Chemist) (Authorized Signatory)

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EST REPORT	DOC NO : QLS/SAMP/08	3-B/00
Report No. Date Sample No. Sample Description Date of Performance(s) Ref No. Date	: QLS/A/23-24/C/191 : 02.06.2023 : QLS/A/23-24/191 : Stack Flue Gas : 26.05.2023-02.06.2023	
nalysis Result	- w122505-06, Dated: 05.05	.2022
	dures : EPA/IS	
: Combustion of H : MS : Circular rm : Yes		
: 1500 kVA : 30.0 m : : 0.25 m : 7.62 m		
2. Fuel consumptio : <u>Result</u> : 240 : 759 : 18.19 : 1867 : 79.7 at 15% O <sub>2</sub> : 5.6 : <3.4 : 10.9 at 15% O <sub>2</sub> : 41.2 at 15% O <sub>2</sub>	m : 276 lit/hr Method EPA Part 2 EPA Part 2 EPA Part 2 EPA Part 2 IS:13270-1992, Reaf : 2017 IS:13270-1992, Reaf : 2017 EPA Part-6 EPA Part-7 EPA Part 5	LIMIT  150  710 100 75
	Date Sample No. Sample Description Date of Performance(s) Ref No. Date nalysis Result Sampling Proce : DG Set-1500 kV/ : Combustion of H : MS : Circular rm : Yes : 1500 kVA : 30.0 m : : 0.25 m : 7.62 m : 0.0491m <sup>2</sup> 2. Fuel consumption : Result : 240 : 759 : 18.19 : 1867 : 79.7 at 15% O <sub>2</sub> : 5.6 : <3.4 : 10.9 at 15% O <sub>2</sub>	Report No.       : QL5/A/23-24/C/191         Date       : 02.06.2023         Sample No.       : QL5/A/23-24/191         Sample Description       : Stack Flue Gas         Date of Performance(s)       : 26.05.2023-02.06.2023         Ref No. Date       : W122505-06, Dated: 05.05         nalysis Result       :         Sampling Procedures       : EPA/IS         : DG Set-1500 kVA       : Combustion of HSD         : MS       : Circular         : Circular       : MS         : Circular       : 1500 kVA         : DG Set-1500 kVA       : Combustion of HSD         : MS       : Circular         : 1500 kVA       : Combustion of HSD         : 0.25 m       : 7.62 m         : 0.0491m²       : Fuel consumption : 276 lit/hr         : 240       EPA Part 2         : 18.19       EPA Part 2         : 18.67       EPA Part 2         : 1867       EPA Part 2         : 13270-1992, Reaf : 2017       :5.6         : 13270-1992, Reaf : 2017       :5.6         : 13270-1992, Reaf : 2017       :5.6 <t< td=""></t<>

for Qualissure Laboratory Services **Reviewed & Authorized By** 

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TEST REPORT

DOC NO : QLS/SAMP/08-B/00

<u>10</u>	LST REPORT				
Name & Address Of the Customer :	Report No.	: QLS/A/23-24/C/192	_		
M/s. Neo Metaliks Ltd.	Date	: 03.06.2023			
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/23-24/192			
P.S. : Kanksa, Durgapur	Sample Description	: Stack Flue Gas			
Paschim Bardhaman	Date of Performance(s)	: 25.06.2023-02.06.2023			
West Bengal – 713 212	Ref No. Date	: W122505-006, Dated: 05.05			
	nalysis Result	. w122303-000, Dated: 05.05	.2022		
•	narysis nesult				
Date & Time of Sampling : 23.05.2023 at 13:15 Sampling done by : P.Mandal	Sampling Procedu	ires : EPA/IS			
A : General Information of Stack:			_		
1 Stack connected to	: DG Set-1250 kVA				
2 Emission due to	; Combustion of H				
3 Material of construction of Stack	: MS	(71)85			
4 Shape of Stack	: Circular				
5 Whether stack is provided with permanent platfo	orm : Yes	: Yes			
6 Generation Capacity	: 1250 kVA				
B : Physical Characteristic of Stack: 1 Height of Stack from ground level	10 Ball at 10				
2 Diameter of Stack at bottom	: 30.0 m				
3 Diameter of Stack at sampling point	:				
4 Height of the sampling point from ground level	: 0.25 m : 7.62 m				
5 Area of Stack	: 0.0491 m <sup>2</sup>				
C : Analysis/Characteristic of Stack :	.0.0451 11				
1 · Fuel used :HSD	2. Fuel consumpti	on : 230 lit/hr			
D : Results of Sampling & Analysis of gaseous Emissio	on : Result	Method	LIM		
<ol> <li>Temperature of emission (°C)</li> </ol>	: 230	EPA Part 2			
2 Barometric pressure (mm of Hg)	: 759	EPA Part 2			
3 Velocity of gas (m/sec)	: 14.29	EPA Part 2	-		
4 Quantity of gas flow (Nm <sup>1</sup> /hr)	: 1495	EPA Part 2			
5 Concentration of Carbon monoxide(mg/Nm <sup>3</sup> )	: 83.2 at 15% O2	IS:13270-1992, Reaf : 2017	150		
6 Concentration of Carbon dioxide(%v/v)	: 4.6	IS:13270-1992, Reaf : 2017			
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	: <3.4	EPA Part-6	710		
8 Concentration of Oxides of Nitrogen (ppm)	: 12.4 at 15% O <sub>2</sub>	EPA Part-7	100		
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	: 41 at 15% O2	EPA Part 5	75		
E : Pollution :		- control and			
Details of pollution control devices attached with	h the stack : NIL				
F :Remarks : Nil					
Report Prepared by :	for	Qualissure Laboratory Service	s		
51		<b>Reviewed &amp; Authorized By</b>			
*		Barcel			
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		A DATA RECEIPTION AND A COMPANY AND A REAL PROPERTY AND A REAL PROPERTY.			

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Date O.T.

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#### DOC NO : QLS//SAMP/08-B/00

## TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/23-24/C/353
M/s. Neo Metaliks Ltd.	Date	: 28.07.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/23-24/353
[일부가 요즘 전 ~ 사람이 알았다]	Sample Description	: Stack Flue Gas
P.S. : Kanksa, Durgapur	Date of Performance(s)	: 22.07.2023-28.07.2023
Paschim Bardhaman	Sample Mark	: Sinter Plant (Head ESP)
West Bengal – 713 212	Ref No. Date	: W122505-006, Dated: 05.05.2022

### Analysis Result

Date & Time of Sampling : 21.07.2023 at 16.18 hrs Campling done by : S.Ghosh	Sampling P	rocedures : EPA/IS
A : General Information of Stack:		
1 Stack connected to	: Sinter Plant	As a Physical Charles and
2 Emission due to	: Combustion	BF Gas
3 Material of construction of Stack	: MS	
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform	: Yes	
6 Generation Capacity	2	
B : Physical Characteristic of Stack:		
1 Height of Stack from ground level	: 50.0 m	
2 Diameter of Stack at bottom	2	
3 Diameter of Stack at sampling point	: 2.2 m	
4 Height of the sampling point from ground level	: 37.25 m	
5 Area of Stack	; 3.8029 m <sup>2</sup>	
C : Analysis/Characteristic of Stack :		
1 Fuel used : BF Gas	the second se	Imption : 3500 Nm <sup>3</sup> /hr
D : Results of Sampling & Analysis of gaseous Emission :	Result	Method
1 Temperature of emission (°C)	: 137	EPA Part 2
2 Barometric pressure (mm of Hg)	: 741	EPA Part 2
3 Velocity of gas (m/sec)	: 10.22	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr)	: 99094	EPA Part 2
5 Concentration of Carbon monoxide (%)	:<0.2	IS:13270-1992, Reaf : 2017
6 Concentration of Carbon dioxide (%)	: 5.0	IS:13270-1992, Reaf : 2017
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	: 25.0	EPA Part-6
8 Concentration of Oxides of Nitrogen (mg/Nm <sup>3</sup> )	: 30.4	EPA Part-7
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	: 22	EPA Part 5
E : Pollution :	10000	
Details of pollution control devices attached with the stack	: ESP	
F : Remarks : Nil		
eport Prepared by :	ſ	or Qualissure Laboratory Services
Aug		<b>Reviewed &amp; Authorized By</b>
Sector (		Rupper
		10 1 11 1 0 1 0 1 1 1

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#### DOC NO : QLS//SAMP/08-B/00 TEST REPORT Name & Address Of the Customer : Report No. : QLS/MR/A/23-24/C/355 Date M/s. Neo Metaliks Ltd. : 28.07.2023 Sample No. : QLS/MR/A/23-24/355 Vill + P.O. : Gopalpur Sample Description : Stack Flue Gas P.S. : Kanksa, Durgapur Date of Performance(s) : 22.07.2023-28.07.2023 Paschim Bardhaman Sample Mark : CPP West Bengal - 713 212 Ref No. Date : 3322000242, Dated: 23.05.2023 **Analysis Result** Date & Time of Sampling : 19.07.2023 at 14:30 hrs. Sampling Procedures : EPA/IS Sampling done by : S.Ghosh A : General Information of Stack: Stack connected to 1 : CPP 2 Emission due to : Combustion FO & BF Gas 3 Material of construction of Stack : MS 4 Shape of Stack : Circular 5 Whether stack is provided with permanent platform · Yes 6 Generation Capacity : 4.5 MW B : Physical Characteristic of Stack: 1 Height of Stack from ground level : 50.0 m 2 Diameter of Stack at bottom 5 -----3 Diameter of Stack at sampling point :14 m 4 Height of the sampling point from ground level : 31.0 m 5 Area of Stack : 1.54m<sup>2</sup> C : Analysis/Characteristic of Stack : 1. Fuel used : BF Gas & Furnace Oil 2. Fuel consumption : BF Gas- 24000 Nm<sup>3</sup>/hr D : Results of Sampling & Analysis of gaseous Emission : Result Method Temperature of emission (°C) 1 : 132 EPA Part 2 2 Barometric pressure (mm of Hg) : 739 EPA Part 2 3 Velocity of gas (m/sec) : 7.82 EPA Part 2 4 Quantity of gas flow (Nm<sup>3</sup>/hr) : 31003 EPA Part 2 5 Concentration of Carbon monoxide (%) :<0.2 IS:13270-1992, Reaf : 2017 6 Concentration of Carbon dioxide (%) : 5.4 IS:13270-1992, Reaf : 2017 7 Concentration of Sulphur dioxide (mg/Nm<sup>3</sup>) : 22.0 EPA Part-6 8 Concentration of Oxides of Nitrogen (mg/Nm<sup>3</sup>) : 30.4 EPA Part-7 9 Concentration of Particulate Matters (mg/Nm<sup>3</sup>) :11 EPA Part 5 E : Pollution : Details of pollution control devices attached with the stack : NIL F:Remarks: Nil **Report Prepared by :** for Qualissure Laboratory Services **Reviewed & Authorized By** MITCH (Benimadhab Gorai, Chemist) (Authorized Signatory)

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TEST REPORT



#### DOC NO : QLS/SAMP/08-B/00

	TEST REPOR	(1	
Name & Address Of the Customer : M/s. Neo Metaliks Ltd. /ill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman West Bengal – 713 212	Report No. Date Sample No. Sample Description Date of Performan Sample Mark Ref No. Date	: 28. : QLS n : Sta ce : 22. : Sin	5/MR/A/23-24/C/356 07.2023 5/MR/A/23-24/356 ck Flue Gas 07.2023-28.07.2023 ter Plant (Tail ESP) 22505-006, Dated: 05.05.2022
	Analysis Res	ult	
Date & Time of Sampling : 18.07.2023 at 1 Sampling done by : S.Ghosh	1.30 hrs.	Sampling	Procedures : EPA/IS
A : General Information of Stack: 1 Stack connected to 2 Emission due to 3 Material of construction of Stack 4 Shape of Stack 5 Whether stack is provided with permit 6 Generation Capacity	anent platform	: Sinter Pla : Process A : MS : Circular : Yes :	nt (Tail ESP) ctivity
B : Physical Characteristic of Stack:         1       Height of Stack from ground level         2       Diameter of Stack at bottom         3       Diameter of Stack at sampling point         4       Height of the sampling point from gro         5       Area of Stack	ound level	: 40.0 m : : 2.0 m : 35.0 m : 3.1429 m	2
C : Analysis/Characteristic of Stack :			
1       Fuel used :         D: Results of Sampling & Analysis of gase         1       Temperature of emission (°C)         2       Barometric pressure (mm of Hg)         3       Velocity of gas (m/sec)         4       Quantity of gas flow (Nm³/hr)         5       Concentration of Carbon monoxide (%)         6       Concentration of Sulphur dioxide (%)         7       Concentration of Oxides of Nitrogen         9       Concentration of Particulate Matters         E: Pollution :       Details of pollution control devices a	%) g/Nm <sup>3</sup> ) (mg/Nm <sup>3</sup> ) i (mg/Nm <sup>3</sup> )	2. Fuel cor <u>Result</u> : 85 : 738 : 11.01 : 100639 : <0.2 : <0.2 : <0.2 : 17.2 : 27.7 : 63 : ESP	Method EPA Part 2 EPA Part 2 EPA Part 2 EPA Part 2 IS:13270-1992, Reaf : 2017 IS:13270-1992, Reaf : 2017 EPA Part-6 EPA Part-7 EPA Part 5
F : Remarks : Nil			
Report Prepared by :			for Qualissure Laboratory Services Reviewed & Authorized By

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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## DOC NO : QLS/SAMP/08-8/00

	TEST REPOR	RT	
Name & Address Of the Customer : M/s. Neo Metaliks Ltd. Vill + P.O. : Gopalpur P.S. : Kanksa,Durgapur Paschim Bardhaman West Bengal – 713 212	Report No. Date Sample No. Sample Description Date of Performance Sample Mark Ref No. Date	: 28.0 : QLS/ : Stacl (s) : 22.0 : Verti	MR/A/23-24/C/358 7.2023 MR/A/23-24/358 k Flue Gas 7.2023-28.07.2023 ical Roller Mill through Bag Filter 2000242,Dated:23.05.2023
	Analysis Res	ult	
Date & Time of Sampling : 19.07.2023 at 1 Sampling done by : S.Ghosh A : General Information of Stack: 1 Stack connected to 2 Emission due to 3 Material of construction of Stack	5:30 hrs.	: Vertical Ro	Procedures : EPA/IS ller Mill through Bag Filter ring of pulverized Coal using BF Gas
<ol> <li>Shape of Stack</li> <li>Whether stack is provided with perm</li> <li>Generation Capacity</li> </ol>	anent platform	: Circular : Yes :	<i>h</i>
B : Physical Characteristic of Stack:     Height of Stack from ground level     Diameter of Stack at bottom     Diameter of Stack at sampling point     Height of the sampling point from gr     Area of Stack	ound level	: 42.6 m : : 0.820 m : 25.6 m : 0.5283 m <sup>2</sup>	
C : Analysis/Characteristic of Stack :			
1 Fuel used : BF Gas		and the second se	umption : 750 Nm³/hr
<ul> <li>D: Results of Sampling &amp; Analysis of gas</li> <li>1 Temperature of emission (°C)</li> <li>2 Barometric pressure (mm of Hg)</li> <li>3 Velocity of gas (m/sec)</li> <li>4 Quantity of gas flow (Nm<sup>3</sup>/hr)</li> <li>5 Concentration of Carbon monoxide</li> <li>6 Concentration of Carbon dioxide (%)</li> <li>7 Concentration of Sulphur dioxide (m</li> <li>8 Concentration of Oxides of Nitrogen</li> <li>9 Concentration of Particulate Matter</li> </ul>	(%) ) ig/Nm³) i (mg/Nm³)	Result : 89 : 739 : 9.28 : 14133 : <0.2 : 0.8 : <3.4 : 15.0 : 30	Method EPA Part 2 EPA Part 2 EPA Part 2 EPA Part 2 IS:13270-1992, Reaf : 2017 IS:13270-1992, Reaf : 2017 EPA Part-6 EPA Part-7 EPA Part 5
E : Pollution : Details of pollution control devices	attached with the stack	: Bag Filter	1
F : Remarks : Nil			
Report Prepared by :			for Qualissure Laboratory Services Reviewed & Authorized By

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T	TEST REPO	ORT	DOC NO : QLS/SAMP/08-B/	00
Name & Address Of the Customer :	Report	and the second sec	: QLS/MR/A/23-24/C/359	
M/s. Neo Metaliks Ltd.	Date	110.	: 28.07.2023	
Vill + P.O. ; Gopalpur	100			
	Sample		: QLS/MR/A/23-24/359	
P.S. : Kanksa, Durgapur	12(07) = 6	Description	: Stack Flue Gas	
Paschim Bardhaman	Date o	f Performance(s)	: 22.07.2023-28.07.2023	
West Bengal – 713 212	Ref No	. Date	: 3322000242,Dated:23.05.2	023
	Analysis Re	esult		
Date & Time of Sampling : 19.07.2023 at 13:10 hrs. Sampling done by : S.Ghosh	3	Sampling Procedu	res : EPA/IS	
A : General Information of Stack:	24	and the state of the state of the	CONTRACTOR OF A	_
1 Stack connected to	9	DG Set-1250 kVA		
2 Emission due to		Combustion of H		
3 Material of construction of Stack		: MS		
4 Shape of Stack		Circular		
5 Whether stack is provided with permanent plat	tform	Yes		
6 Generation Capacity		1250 kVA		
B : Physical Characteristic of Stack:				
1 Height of Stack from ground level		: 30.0 m		
2 Diameter of Stack at bottom				
3 Diameter of Stack at sampling point		: 0.25 m		
4 Height of the sampling point from ground level	t a	: 7.62 m		
5 Area of Stack		: 0.0491 m <sup>2</sup>		
C : Analysis/Characteristic of Stack : 1 Fuel used :HSD				
D : Results of Sampling & Analysis of gaseous Emis:	41_44 U	2. Fuel consumption	TE COLUMN AND ADDRESS OF	1.000
1 Temperature of emission (°C)		Result	Method	LIMI
2 Barometric pressure (mm of Hg)		: 189	EPA Part 2	*****
3 Velocity of gas (m/sec)		: 739 : 10.29	EPA Part 2	100
4 Quantity of gas flow (Nm <sup>3</sup> /hr)		: 1141	EPA Part 2	
5 Concentration of Carbon monoxide(mg/Nm <sup>3</sup> )		: 88.0 at 15% O <sub>2</sub>	EPA Part 2	
6 Concentration of Carbon dioxide(%v/v)		: 4.4	IS:13270-1992, Reaf : 2017 IS:13270-1992, Reaf : 2017	150
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )		: 5.1	NG 221. TO TO TO TO TO	
8 Concentration of Oxides of Nitrogen (ppm)			EPA Part-6	710
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup>		: 13.0 at 15% Oz	EPA Part-7	100
E: Pollution :		: 23 at 15% O2	EPA Part 5	75
Details of pollution control devices attached w	with the stack	: NIL		
F :Remarks : Nil	and the second second second second			
Report Prepared by :		for	Qualissure Laboratory Service	s
A.		Partico	Reviewed & Authorized By	0.01
			Anton	

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	TEST R	EPORT	DOC NO : QLS/SAMP/08-B/	/00	
Name & Address Of the Customer :	and the second s	t No.	· OIS/ME/A (33 34/C/3CO	_	
M/s. Neo Metaliks Ltd.	Date		: QLS/MR/A/23-24/C/360 : 28.07.2023		
Vill + P.O. : Gopalpur	Sample No.				
P.S. : Kanksa, Durgapur	2.2020-253		: QLS/MR/A/23-24/360		
Paschim Bardhaman	Sample Description Date of Performance(s)		rmance(s) : 22.07.2023-28.07.2023 : 3322000242,Dated:23.05.2023		
West Bengal – 713 212 Ref No. Date		10000000000000000000000000000000000000			
Date & Time of Sameline 10 07 2022	Analysis	Result			
Date & Time of Sampling : 19.07.2023 at 12:30 hrs Sampling done by : S.Ghosh			edures : EPA/IS		
A : General Information of Stack:					
1 Stack connected to		: DG Set-1500 kV/			
2 Emission due to	: Combustion of F				
3 Material of construction of Stack	k : MS				
4 Shape of Stack	: Circular				
5 Whether stack is provided with permanent pl	atform	: Yes			
6 Generation Capacity		: 1500 kVA	- E		
B : Physical Characteristic of Stack:					
1 Height of Stack from ground level		: 30.0 m			
	iameter of Stack at bottom		1		
3 Diameter of Stack at sampling point		: 0.25 m			
4 Height of the sampling point from ground level		: 7.62 m			
5 Area of Stack		: 0.0491m <sup>3</sup>			
C : Analysis/Characteristic of Stack : 1 Fuel used : HSD					
		2. Fuel consumpti	ion : 180 lit/hr		
D : Results of Sampling & Analysis of gaseous Em 1 Temperature of emission (°C)	ission :	Result	Method	LIMI	
2 Barometric pressure (mm of Hg)		: 235	EPA Part 2	100	
3 Velocity of gas (m/sec)		: 739	EPA Part 2		
4 Quantity of gas flow (Nm <sup>3</sup> /hr)		: 10.99	EPA Part 2	-	
5 Concentration of Carbon monoxide(mg/Nm <sup>3</sup> )		: 1108	EPA Part 2	1000	
6 Concentration of Carbon dioxide(%v/v)		: 82.8 at 15% O <sub>2</sub> : 5.2	IS:13270-1992, Reaf : 2017	150	
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )		: 7.4	IS:13270-1992, Reaf : 2017	100	
8 Concentration of Oxides of Nitrogen (ppm)		: 11.2 at 15% O <sub>2</sub>	EPA Part-6	710	
9 Concentration of Particulate Matters (mg/Nn	23	: 35 at 15% O <sub>2</sub>	EPA Part-7	100	
E : Pollution :			EPA Part 5	75	
Details of pollution control devices attached	with the sta	ck : Nil			
F :Remarks : Nil					
Report Prepared by :		for	Qualissure Laboratory Service	s	
San			<b>Reviewed &amp; Authorized By</b>		
1			Botton Ton		
		7	Benimadhab Gorai, Chemist)		
			(Authorized Signatory)		

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(Authorized Signatory)

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23.05.2023		
Sampling Procedures : EPA/IS		
llast Furnace)		
Combustion BF Gas & Coke		
: MS : Circular		
: Circular : Yes		
- Tes.		
e 600 Kgs.,		
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Name & Address Of the Customer :	Report No.	: QLS/MR/	A/23-24/C/545	
M/s. Neo Metaliks Ltd.	Date	: 25.09.20	23	
Vill + P.O. : Gopalpur	Sample No.		A/23-24/545	
P.S. : Kanksa, Durgapur	Sample Description	e(s) : 18-25.09.2023		
Paschim Bardhaman	Date of Performance			
West Bengal – 713 212	Sample Mark	: Vertical Roller Mill through Bag Filter		
West bengar - 715 212	Ref No. Date	and the second s	242,Dated:23.05.2023	
	Analysis Res	alt		
Date & Time of Sampling : 15.09.2023 at 1 Sampling done by : C.Sahoo	1:20 hrs.	Sampling Procedures : EPA/IS		
A : General Information of Stack:				
1 Stack connected to		: Vertical Roller Mill through Bag Filter		
2 Emission due to		: De-Moisturing of pulverized Coal using BF Gas		
3 Material of construction of Stack		: MS		
4 Shape of Stack		: Circular		
5 Whether stack is provided with permanent platform		: Yes		
6 Generation Capacity B : Physical Characteristic of Stack:		2 ****		
1 Height of Stack from ground level		: 42.6 m		
2 Diameter of Stack at bottom		5 42.0 m		
3 Diameter of Stack at sampling point		: 0.820 m		
4 Height of the sampling point from ground level		: 25.6 m		
5 Area of Stack		: 0.5283 m <sup>2</sup>		
C : Analysis/Characteristic of Stack :				
1 Fuel used : BF Gas		2. Fuel consump	tion : 750 Nm³/hr	
D : Results of Sampling & Analysis of gaseous Emission :		Result	Method	
1 Temperature of emission (°C)		: 86	EPA Part 2	
2 Barometric pressure (mm of Hg)		: 747	EPA Part 2	
3 Velocity of gas (m/sec)		: 7.77	EPA Part 2	
4 Quantity of gas flow (Nm <sup>3</sup> /hr) 5 Concentration of Carbon monoxide (%)		: 12059	EPA Part 2	
6 Concentration of Carbon monoxide (%)		: <0.2 : 0.4	IS:13270-1992, Reaf : 2017	
7 Concentration of Californi dioxide (%)		: <3.4	IS:13270-1992, Reaf : 2017	
8 Concentration of Oxides of Nitrogen (mg/Nm <sup>3</sup> )			EPA Part-6	
		: 14.8	EPA Part-7	
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )		: 47	EPA Part 5	
E : Pollution : Details of pollution control devices :	attached with the stack	: Bag Filter		
F : Remarks : Nil	Action of whith the state	, oag rater		
leport Prepared by :			ualissure Laboratory Services	

Benimadhab Gorai, Chemist (Authorized Signatory)

End of the Report-----

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DOC NO : QLS/SAMP/08-B/00 TEST REPORT Name & Address Of the Customer : Report No. : QLS/MR/A/23-24/C/544 M/s. Neo Metaliks Ltd. Date : 25.09.2023 Vill + P.O. : Gopalpur Sample No. : QLS/MR/A/23-24/544 P.S. : Kanksa, Durgapur Sample Description : Stack Flue Gas Date of Performance(s) Paschim Bardhaman : 18-25.09.2023 West Bengal - 713 212 Ref No. Date : 3322000242.Dated 23.05.2023 Analysis Result Date & Time of Sampling : 15.09.2023 at 10:40 hrs Sampling Procedures : EPA/IS Sampling done by : C.Sahoo A : General Information of Stack: Stack connected to : MBF Plant (Blast Furnace) 2 Emission due to : Combustion BF Gas & Coke 3 Material of construction of Stack - MS 4 Shape of Stack : Circular 5 Whether stack is provided with permanent platform : Yes 6 Generation Capacity 102 B : Physical Characteristic of Stack: 1 Height of Stack from ground level : 50.0 m 2 Diameter of Stack at bottom 56-aaaa 3 Diameter of Stack at sampling point : 2.29 m 4 Height of the sampling point from ground level : 26.82 m 5 Area of Stack : 4.1204 m<sup>2</sup> C : Analysis/Characteristic of Stack : Fuel used : 8F Gas & Coke 1 2.Fuel consumption : 40000 m3/hr. / Store Coke 600 Kgs./hr. D : Results of Sampling & Analysis of gaseous Emission : Result Method 1 Temperature of emission (°C) : 167 EPA Part 2 2 Barometric pressure (mm of Hg) : 747 EPA Part 2 3 Velocity of gas (m/sec) : 6.89 EPA Part 2 4 Quantity of gas flow (Nm3/hr) : 68019 EPA Part 2 5 Concentration of Carbon monoxide (%) : <0.2 IS:13270-1992, Reaf : 2017 6 Concentration of Carbon dioxide (%) :8.4 IS:13270-1992, Reaf : 2017 Concentration of Sulphur dioxide (mg/Nm<sup>3</sup>) 7 : 31.7 EPA Part-6 8 Concentration of Oxides of Nitrogen (mg/Nm<sup>3</sup>) : 28.2 EPA Part-7 9 Concentration of Particulate Matters (mg/Nm<sup>3</sup>) : 19 EPA Part 5 E: Pollution : Details of pollution control devices attached with the stack : Cyclone Separator, Saturator &Ventury scrubber F :Remarks : Nil Report Prepared by : 🔁 for Qualissure Laboratory Services **Reviewed & Authorized By** Benimadhab Gorai, Chemist

---- End of the Report-----

(Authorized Signatory)

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		5 CC 97 E SCALLARD ADVADOR		
CS SCAREWORK AND		IR/A/23-24/543		
C 2 200 C 2010 C 10 C 22 C 10				
	COORT CONTRACTOR CONTRACT			
Ref No. Date	: 3322000242,Dated:23.05.2023			
Analysis Res	ult			
0 hrs.	Sampling Dr	and any CDA IIC		
	Sampang Ph	ocedures : EPA/IS		
	: CPP			
	: Combustion FO & BF Gas			
	: MS			
	: Circular			
inent platform	100000000			
	: 4.5 MW			
	: 50.0 m			
	2			
3 Diameter of Stack at sampling point     4 Height of the sampling point from ground level				
und level				
	: 1.54m²			
		and a second second and the second		
	the second s	mption : BF Gas- 24000 Nm <sup>3</sup> /hr		
D : Results of Sampling & Analysis of gaseous Emission : 1 Temperature of emission (°C)		Method		
	200700	EPA Part 2		
	1.7.0.5.00.00	EPA Part 2		
		EPA Part 2		
		EPA Part 2		
5 Concentration of Carbon monoxide (%) 6 Concentration of Carbon dioxide (%)		IS:13270-1992, Reaf : 2017		
<ul> <li>6 Concentration of Carbon dioxide (%)</li> <li>7 Concentration of Sulphur dioxide (mg/Nm<sup>3</sup>)</li> </ul>		IS:13270-1992, Reaf : 2017		
WHEN CONDUCT		EPA Part-6		
8 Concentration of Oxides of Nitrogen (mg/Nm <sup>3</sup> ) 9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )		EPA Part-7		
(mg/Nm <sup>*</sup> )	: 22	EPA Part 5		
tacked with the stark	All			
tached with the stack	: NIL			
	fo	r Qualissure Laboratory Services		
	10	Reviewed & Authorized By		
		( take		
		Benimadhab Gorai, Chemist		
		(Authorized Signatory)		
	Sample Mark Ref No. Date Analysis Resu O hrs.	Date       : 25.09.3         Sample No.       : QLS/M         Sample Description       : Stack F         Date of Performance(s)       : 17-25.3         Sample Mark       : CPP         Ref No. Date       : 33220         Analysis Result         20 hrs.       Sampling Pr         21 combustion       : MS         22 combustion       : Solo m         23 condition       : Solo m         24 consume       : Solo m         25 consumption       : Solo m         21 consume       : Solo m         22 consume       : Solo m         23 consume       : Solo m         24 consume       : Solo m         25 consume       : Solo m         26 consume       : Solo m         27 consume       : Solo m         28 consume       : Solo m         29 consume       : Solo m <t< td=""></t<>		

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	TEST REPO	RT	DOC NO : QLS/SAM	P/01-A/00
Name & Address Of the Customer:	Report No.	:OLS/MR/A/	23-24/C/528	
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023	1221.00	
같이 한 것은 가슴 가슴이 있는 것은 것이 같이 다 같이 같이 가지 않는 것이 같이 가지 않는 것이 같이 없다. 것이 같이 많이 많이 많이 많이 없다. 것이 같이 많이 많이 많이 없다. 것이 같이 많이 많이 없다. 것이 같이 많이 없다. 것이 없다. 것이 같이 많이 없다. 것이 없다. 것이 않는 것이 없다. 않다. 것이 없다.	Sample No.			
Vill + P.O. : Gopalpur		: QLS/MR/A/		
P.S. : Kanksa, Durgapur	Sample Descriptio			
Paschim Bardhaman	Date of Performa		201 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	
West Bengal – 713 212	Sample Mark	: DG Set-150		
	Ref No. Date	and the second sec	2,Dated:23.05.2023	
	Analysis Res	ult		
Date & Time of Sampling : 09.09.2023 at 11:2 Sampling done by : C.Sahoo	t0 hrs.	Sampling Procedur	es : EPA/IS	
A : General Information of Stack:				
1 Stack connected to		: DG Set-1500 kVA		
2 Emission due to		: Burning of H.S.D		
3 Material of construction of Stack		: MS		
4 Shape of Stack		: Circular		
5 Whether stack is provided with perman	ent platform	: Yes		
6 Generation Capacity		: 1500 kVA		
B : Physical Characteristic of Stack:				
1 Height of Stack from ground level		: 30.0 m		
2 Diameter of Stack at bottom		2		
3 Diameter of Stack at sampling point		: 0.25 m		
4 Height of the sampling point from group	nd level	: 7.62 m		
5 Area of Stack	1	: 0.0491 m <sup>2</sup>		
C : Analysis/Characteristic of Stack:		2 Evol concurrentia		
1 Fuel used : H.S.D		2. Fuel consumptio	n : 230 Lit/nr	
D : Results of Sampling & Analysis of gaseou	us Emission:	RESULT	METHOD	LIMI
1 Temperature of emission (°C)		: 217	EPA Part 2	
2 Barometric pressure (mm of Hg)		: 753	EPA Part 2	1000
3 Velocity of gas (m/sec)		: 14.25	EPA Part 2	
4 Quantity of gas flow (Nm <sup>3</sup> /hr)		: 1519	EPA Part 2	
5 Concentration of Oxygen(%v/v)	207-20	: 14.25	IS:13270-1992, Reaf :	2017 -
6 Concentration of Carbon monoxide(mg		: 82.99 at 15% O <sub>2</sub>	IS:13270-1992, Reaf :	
7 Concentration of Carbon dioxide(%v/v)		: 6.2	15:13270-1992, Reaf :	2017
8 Concentration of Sulphur dioxide (mg/f		:<3.4	EPA Part-6	353
9 Concentration of Oxides of Nitrogen (p 10 Concentration of Oxides of Nitrogen (p)		: 16.03 at 15% O <sub>2</sub>	EPA Part-7	710
10 Concentration of Particulate Matters (n E : Pollution Control Davies )	ng/Nm?)	: 52 at 15% O2	EPA Part 5	75
E : Pollution Control Device : Details of pollution control devices atta	ched with the stack	: NIL		
F : Remarks:				
Report Prepared by:		for Qual	issure Laboratory Serv	ices
ça.			iewed & Authorized By	1
		0.0	Bern	
			1 Martin	
		Beni	madhab Gorai, Chemis	• 2

Benimadhab Gorai, Chemist (Authorized Signatory)

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DOC NO : QLS/SAMP/01-A/00

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5 <b>*</b> 5	TEST REPO	DRT		
Name & Address Of the Customer:	Report No.	: QLS/MR/A/2	3-24/C/527	
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023		
vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/2	3-24/527	
P.S. : Kanksa, Durgapur	Sample Description			
신경 방법 사용과 방법 것이 되었어? 이 것이 있는 것	Date of Performa		Restance and a set	
Paschim Bardhaman	Sample Mark	: DG Set-1250		
West Bengal – 713 212	Ref No. Date	C17429 March 118424	,Dated:23.05.2023	
	Analysis Res			
Date & Time of Sampling : 09.09.2023 at 12:	IS hrs.			
Sampling done by : C.Sahoo		Sampling Procedure	is : EPA/IS	
A : General Information of Stack:				
1 Stack connected to		: DG Set-1250 kVA		
2 Emission due to		: Burning of H.S.D		
3 Material of construction of Stack		: M5		
4 Shape of Stack		: Circular		
5 Whether stack is provided with perman	ent platform	: Yes		
6 Generation Capacity		: 1500 kVA		
B : Physical Characteristic of Stack:				
1 Height of Stack from ground level 2 Diameter of Stack at bottom		: 30.0 m		
		;		
3 Diameter of Stack at sampling point  Height of the sampling point from group	Saran and	: 0.25 m		
	nd level	: 7.62 m		
and the second		: 0.0491 m <sup>2</sup>		
C : Analysis/Characteristic of Stack: 1 Fuel used : H.S.D		2. Fuel consumption	180 Lit/hr	
D : Results of Sampling & Analysis of gaseo	us Emission:	RESULT	METHOD	LIMI
1 Temperature of emission (°C)		: 193	EPA Part 2	Linia
2 Barometric pressure (mm of Hg)		: 753	EPA Part 2	
3 Velocity of gas (m/sec)		: 12.98	EPA Part 2	222
4 Quantity of gas flow (Nm <sup>5</sup> /hr)		: 1455	EPA Part 2	
5 Concentration of Oxygen(%v/v)		: 14.2	IS:13270-1992, Reaf	
6 Concentration of Carbon monoxide(mp	(Nm <sup>3</sup> )	: 80.31 at 15% O2	IS:13270-1992, Reaf	
7 Concentration of Carbon dioxide(%v/v		: 5.8	IS:13270-1992, Reaf	
8 Concentration of Sulphur dioxide (mg/		: <3.4	EPA Part-6	
9 Concentration of Oxides of Nitrogen (p		: 13.72 at 15% O2	EPA Part-7	710
10 Concentration of Particulate Matters (	A CONTRACTOR OF	: 43 at 15% O2	EPA Part 5	75
E : Pollution Control Device :	9. 900.000 NO		Critical	10
Details of pollution control devices att. F : Remarks:	ached with the stack	: NIL		
Report Prepared by :		Rev	issure Laboratory Sen ewed & Authorized B	Y
			imadhab Gorai, Chem	
		6	Authorized Signatory)	10

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TEST DEDODT



DOC NO : QLS//SAMP/08-B/00

1    Stack connected to    : Pr      2    Emission due to    : M      3    Material of construction of Stack    : M      4    Shape of Stack    : Ci      5    Whether stack is provided with permanent platform    : Yee      6    Generation Capacity    :      8: Physical Characteristic of Stack:    : 40      1    Height of Stack from ground level    :      2    Diameter of Stack at bottom    :      3    Diameter of Stack at sampling point    :      4    Height of the sampling point from ground level    :	9
Date & Time of Sampling : 15.09.2023 at 15.45 hrs      Sampling done by : C.Sahoo      Sampling Procedures : EPA/IS      A : General Information of Stack:      1 Stack connected to      2 Emission due to      3 Material of construction of Stack      4 Shape of Stack      5 Whether stack is provided with permanent platform      6 Generation Capacity      B : Physical Characteristic of Stack:      1 Height of Stack at bottom      3 Diameter of Stack at sampling point      2 Diameter of Stack at sampling point	
Sampling done by    : C.Sahoo      Sampling Procedures    : EPA/IS      A : General Information of Stack:    : Sile      1    Stack connected to    : Sile      2    Emission due to    : Pr      3    Material of construction of Stack    : M      4    Shape of Stack    : Gile      5    Whether stack is provided with permanent platform    : Yee      6    Generation Capacity    :      8 : Physical Characteristic of Stack:    : 44      1    Height of Stack from ground level    :      2    Diameter of Stack at bottom    :      3    Diameter of Stack at sampling point    :      4    Height of the sampling point from ground level    :	
1    Stack connected to    : Sile      2    Emission due to    : Provided with permanent of the sampling point    : Material of construction of Stack    : Material of construction of Stack      3    Material of construction of Stack    : Material of Stack	
B : Physical Characteristic of Stack:    : 40      1    Height of Stack from ground level    : 40      2    Diameter of Stack at bottom    : 40      3    Diameter of Stack at sampling point    : 2.      4    Height of the sampling point from ground level    : 30	ircular es
1    Height of Stack from ground level    144      2    Diameter of Stack at bottom    145      3    Diameter of Stack at sampling point    122      4    Height of the sampling point from ground level    133	SAL-9 993
5 Area of Stack :3	0.0 m  .0 m 5.0 m .1429 m <sup>2</sup>
C : Analysis/Characteristic of Stack : 1 Fuel used : 2. Fuel consumpti	
	sult
1    Temperature of emission (°C)    EPA Part 2    : 7      2    Barometric pressure (mm of Hg)    EPA Part 2    : 7      3    Velocity of gas (m/sec)    EPA Part 2    : 7      4    Quantity of gas flow (Nm³/hr)    EPA Part 2    : 1      5    Concentration of Carbon monoxide (%)    IS:13270-1992, Reaf : 2017    : <	
E : Pollution : Details of pollution control devices attached with the stack F : Remarks :	ESP

Report Prepared By : A-

for Qualissure Laboratory Services Reviewed & Authorized By Bricoss Benimadhab Goral, Chemist

(Authorized Signatory)

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DOC NO : QLS//SAMP/08-B/00

	TEST REPORT	
Name & Address Of the Customer :	Report No.	: QLS/MR/A/23-24/C/547
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/547
P.S. : Kanksa, Durgapur	Sample Description	: Stack Flue Gas
Paschim Bardhaman	Date of Performance(s)	: 17-25.09.2023
	Sample Mark	: Sinter Plant
West Bengal – 713 212	Ref No. Date	: 3322000242, Dated:23.05.2023
west Bengal - 713 212	Ref No. Date	: 3322000242, Dated:23.05.2023

Analysis Result	
Date & Time of Sampling : 15.09.2023 at 13.15 hrs	
Sampling done by : C.Sahoo	
Sampling Procedures : EPA/IS	
A : General Information of Stack:	
1 Stack connected to	: Sinter Plant Head ESP
2 Emission due to	: Combustion BF Gas
3 Material of construction of Stack	: M5
4 Shape of Stack	: Circular
5 Whether stack is provided with permanent platform	: Yes
6 Generation Capacity	:
B : Physical Characteristic of Stack:	920
1 Height of Stack from ground level	: 50.0 m
2 Diameter of Stack at bottom	·
3 Diameter of Stack at sampling point	: 2.2 m
4 Height of the sampling point from ground level	: 37.25 m
5 Area of Stack	: 3.8029 m <sup>2</sup>
C : Analysis/Characteristic of Stack :	
1 Fuel used : BF Gas	2. Fuel consumption : 3500 Nm <sup>3</sup> /hr

<b>X</b>	Fuel used : BF Gas	2. Fuel consumption : 3500 Nm <sup>3</sup>		
D :	Results of Sampling & Analysis of gaseous Emission :	Method	Result	
1	Temperature of emission (°C)	EPA Part 2	: 105	
2	Barometric pressure (mm of Hg)	EPA Part 2	: 747	
3	Velocity of gas (m/sec)	EPA Part 2	: 11.80	
4	Quantity of gas flow (Nm <sup>3</sup> /hr)	EPA Part 2	: 125086	
5	Concentration of Carbon monoxide (%)	IS:13270-1992, Reaf : 2017	:<0.2	
6	Concentration of Carbon dioxide (%)	IS:13270-1992, Reaf : 2017	: 6.2	
7	Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	EPA Part-6	:93.1	
8	Concentration of Oxides of Nitrogen (mg/Nm <sup>3</sup> )	EPA Part-7	: 49.7	
9	Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	EPA Part 5	: 38	
E :	Pollution :		: ESP	
_	Details of pollution control devices attached with the star	ck	. ESP	
F:	Remarks :			

Report Prepared By : ( ---

for Qualissure Laboratory Services Reviewed & Authorized By Benimadhab Gorai, Chemist (Authorized Signatory)

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#### Annexure- XI





DOC NO : QLS/SAMP/08-A/00

	TEST	REPORT		
M/s. Vill + P.S. Pasc	Neo Metaliks Ltd. Da P.O. : Gopalpur Sa : Kanksa, Durgapur Sa him Bardhaman Da	eport No. ate imple No. imple Description ate of Performance of No. Date	: QLS/A/23-24/C/184 : 03.06.2023 : QLS/A/23-24/184 : Work Zone Monitoring (s) : 26.05.2023-02.06.2023 : W122505-006,Dated:05.05.2022	
		sis Result	. W122303-000,Dated:05.05.202.	
	tion 1 Near Metal Bay	Date of samp	ling : 23.05.2023	
Sampling Done by: Distand 1/0 and 1		Sampling dor	Sampling done as per : CPCB Guidelines (Volume-1)	
	ronmental Condition : Heavy Rainfall			
SI. No.	Pollutants	Result	Method of Test Reference	
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	162	IS 5182 : Part.4-1999,(RA-2014)	
2	Respirable Suspended Particulate Matter in µg/m	99	IS 5182: Part 23 : 2012	
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^3$	7.6	IS: 5182 (Part-2)-2001,(RA-2012)	
4 '	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	30.1	IS: 5182 (Part- 6)-2012	
5	Carbon Monoxide (CO) in $\mu g/m^3$	778	IS: 5182 (Part- 10)- (RA-2017)	
6	Lead (Pb) in µg/m <sup>3</sup>	0.05	EPA IO-3.2 & 5.0	

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

BARLY

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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<sup>36</sup> Frantick Paily, 45/361, Birst, Puster Roud, Kolkata -700107 Frantisking gravity of gravity

	TEST	REPORT	DOC NO : QLS/SAMP/08-A/00	
Nam	e & Address Of the Customer	port No.	A LUC A LUC AND AND AND A	
	S-D-Server Manager Mana	22	: QLS/A/23-24/C/185	
	eto:	te	: 03.06.2023	
	C= 100 (ACC) (ACC)	mple No.	: QLS/A/23-24/185	
	Kanksa, Durgapur Sa	mple Description	: Work Zone Monitoring	
	him Bardhaman Da	te of Performance		
West	Beweel 717 Dep	f No. Date	: W122505-006,Dated:05.05.202	
	Analys	is Result		
Locat	tion : Near Emergency Pith	Date of samp	oling : 24.05.2023	
Sampling Done by: P.Mandal/P.Mahato		Sampling do	Sampling done as per : CPCB Guidelines (Volume-1)	
Envir	onmental Condition : Heavy Rainfall	1		
SI. No.	Pollutants	Result	Method of Test Reference	
1.	Total Suspended Particulate Matter in µg/m <sup>3</sup>	107	IS 5182 : Part.4-1999,(RA-2014)	
2	Respirable Suspended Particulate Matter in µg/m	63	IS 5182: Part 23 : 2012	
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^3$	4 6.4	IS: 5182 (Part-2)-2001,(RA-2012)	
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	29.4	IS: 5182 (Part- 6)-2012	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	847	IS: 5182 (Part- 10)- (RA-2017)	
6	Lead (Pb) in µg/m <sup>1</sup>	0.04	EPA IO-3.2 & 5.0	

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

Bake

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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DOC NO : QLS/SAMP/08-A/00 TEST REPORT Name & Address Of the Customer : Report No. : QLS/A/23-24/C/183 Date :03.06.2023 M/s. Neo Metaliks Ltd. Sample No. : QLS/A/23-24/183 Vill + P.O. : Gopalpur Sample Description : Work Zone Monitoring P.S. : Kanksa, Durgapur Date of Performance(s) : 26.05.2023-02.06.2023 Paschim Bardhaman West Bengal - 713 212 Ref No. Date : W122505-006, Dated: 05.05.2022 Analysis Result Location : Near Head ESP Date of sampling : 23.05.2023 Sampling Done by: P.Mandal/P.Mahato Sampling done as per : CPCB Guidelines (Volume-1) Environmental Condition : Heavy Rainfall SI. Result Method of Test Reference Pollutants No. 1 Total Suspended Particulate Matter in µg/m<sup>3</sup> 363 IS 5182 : Part.4-1999, (RA-2014) 2 Respirable Suspended Particulate Matter in ug/m<sup>3</sup> 245 IS 5182: Part 23 : 2012 3 Sulphur dioxide (SO<sub>2</sub>) in µg/m<sup>3</sup> 7.0 IS: 5182 (Part-2)-2001, (RA-2012) 4 Nitrogen dioxide (NO2) in µg/m3 28.1 IS: 5182 (Part- 6)-2012 Carbon Monoxide (CO) in µg/m3 1052 IS: 5182 (Part- 10)- (RA-2017) 5 EPA 10-3.2 & 5.0 0.19 .6 Lead (Pb) in µg/m<sup>3</sup>

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

Same

for Qualissure Laboratory Services Reviewed & Authorized By

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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	TEST	REPORT	DOC NO : QLS/SAMP/08-A/00
Nam M/s. Vill + P.S. : Pasct	ne & Address Of the Customer : Ri Neo Metaliks Ltd. D + P.O. : Gopalpur Sa : Kanksa, Durgapur Sa chim Bardhaman D	REPORT leport No. ample No. ample Description bate of Performance(s lef No. Date	
		sis Result	: W122505-006,Dated:05.05.202
Loca	ation : Near Ground Hopper		ling : 22.05.2023
Sam	pling Done by: P.Mandal/P.Mahato		
Envir	ronmental Condition : Cloudy & Drizzling	Y 47 56 75 17 18 40 77 18	sacher and an entrement commercial
SI. No.	Pollutants	Result	Method of Test Reference
1	Total Suspended Particulate Matter in $\mu\text{g}/\text{m}^3$	255	IS 5182 : Part.4-1999,(RA-2014)
2	Respirable Suspended Particulate Matter in µg/n	n <sup>3</sup> 108	IS 5182: Part 23 : 2012
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	7.3	IS: 5182 (Part-2)-2001,(RA-2012)
·4 .	Nitrogen dioxide (NO2) in µg/m <sup>3</sup>	28.9	IS: 5182 (Part- 6)-2012
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	595	IS: 5182 (Part- 10)- (RA-2017)

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

Richard

for Qualissure Laboratory Services Reviewed & Authorized By

SHOW

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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DOC NO : QLS/SAMP/08-A/00

	TEST	REPORT		
Nam	e & Address Of the Customer : Re	eport No.	: QLS/A/23-24/C/182	
M/s.	Neo Metaliks Ltd. D	ate	: 03.06.2023	
Vill +	P.O. : Gopalpur Sa	ample No.	: QLS/A/23-24/182	
P.S. :	Kanksa, Durgapur Sa	ample Description	: Work Zone Monitoring	
	EACHER STREET, STRE	ate of Performance(	s) : 26.05.2023-02.06.2023	
West	t Bengal – 713 212 R	ef No. Date	: W122505-006,Dated:05.05.2022	
	Analy	sis Result		
Loca	tion : Near Tail ESP	Date of samp	ling : 22.05.2023	
Sampling Done by: P.Mandal/P.Mahato		Sampling dor	Sampling done as per : CPCB Guidelines (Volume-1)	
Envir	ronmental Condition : Cloudy & Drizzling			
SI. No.	Pollutants	Result	Method of Test Reference	
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	201	IS 5182 : Part 4-1999,(RA-2014)	
zʻ	Respirable Suspended Particulate Matter in µg/n	n <sup>3</sup> 127	IS 5182: Part 23 : 2012	
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	7.0	IS: 5182 (Part-2)-2001,(RA-2012)	
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu g/m^3$	27.6	IS: 5182 (Part- 6)-2012	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	721	IS: 5182 (Part- 10)- (RA-2017)	
-	Lead (Pb) in µg/m <sup>3</sup>	10.5000	6420451/86-05185/007-4-1	

NOTE: Fugitive emission Standard - 4000 µg/m³ as per Environment (Protection) rules, 1986.

Report Prepared by :

R. Elwann

for Qualissure Laboratory Services Reviewed & Authorized By

Botton

(Benimadhab Gorai, Chemist) (Authorized Signatory)

----- End of the Report-----

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DOC NO : QLS/SAMP/08-A/00

	TEST REPORT	
Name & Address Of the Customer :	Report No.	: QLS/MR/A/23-24/C/367
M/s. Neo Metaliks Ltd.	Date	: 28.07.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/367
P.S. : Kanksa, Durgapur	Sample Description	: Work Zone Monitoring
Paschim Bardhaman	Date of Performance(s)	: 22.07.2023-28.07.2023
West Bengal – 713 212	Ref No. Date	: 3322000242, Dated: 23.05.2023

#### **Analysis Result**

Location : Near Metal Bay	Date of sampling : 18.07.2023		
Sampling Done by: S.Ghosh/P.Mahato	Sampling done as per : CPC8 Guidelines (Volume-1)		

Environmental Condition : Heavy Rainfall

SI. No.	Pollutants	Result	Method of Test Reference
1	Total Suspended Particulate Matter in $\mu g/m^3$	89	IS 5182 : Part.4-1999,(RA-2014)
2	Respirable Suspended Particulate Matter in µg/m <sup>3</sup>	34	IS 5182: Part 23 : 2012
з	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	6.0	IS: 5182 (Part-2)-2001,(RA-2012)
4	Nitrogen dioxide (NO2) in µg/m <sup>3</sup>	26.1	IS: 5182 (Part- 6)-2012
5	Carbon Monoxide (CO) in µg/m³	755	IS: 5182 (Part- 10) (RA-2017)
6	Lead (Pb) in µg/m <sup>1</sup>	<0.02	EPA IO-3.2 & 5.0

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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DOC NO : QLS/SAMP/08-A/00

	TEST REPORT	
Name & Address Of the Customer :	Report No.	: QLS/MR/A/23-24/C/368
M/s. Neo Metaliks Ltd.	Date	: 28.07.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/368
P.S. : Kanksa, Durgapur	Sample Description	: Work Zone Monitoring
Paschim Bardhaman	Date of Performance(s)	22.07.2023-28.07.2023
West Bengal – 713 Z12	Ref No. Date	: 3322000242, Dated: 23.05.2023
	Analysis Result	
Location : Near Tail ESP	Date of sampling	3:18.07.2023

C	line Dana hur S Charb (D Mahata	Sampling done as per : CPCB Guidelines (Volume-1)		
Sam	oling Done by: S.Ghosh/P.Mahato	Sampling done as per : CPCB Guidelines (Volume-1)		
Envir	onmental Condition : Heavy Rainfall	10		
SI. No.	Pollutants	Result	Method of Test Reference	
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	148	IS 5182 : Part.4-1999,(RA-2014)	
2	Respirable Suspended Particulate Matter in ug/m <sup>3</sup>	56	IS 5182: Part 23 : 2012	
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	5.4	IS: 5182 (Part-2)-2001, (RA-2012)	
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	24.0	IS: 5182 (Part- 6)-2012	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	583	IS: 5182 (Part- 10)- (RA-2017)	
6	Lead (Pb) in µg/m <sup>3</sup>	0.04	EPA 10-3.2 & 5.0	

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

**Report Prepared by :** 

for Qualissure Laboratory Services Reviewed & Authorized By

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	TE	ST RE	PORT	DOC NO : QL5/SAMP/08-A/00	
lam	e & Address Of the Customer :	Repor		: QLS/MR/A/23-24/C/369	
M/s.	Neo Metaliks Ltd.	Date Sample No.		: 28.07.2023	
0.20	P.O. : Gopalpur			: QLS/MR/A/23-24/369	
P.S. :	Kanksa, Durgapur	Samp	le Description	: Work Zone Monitoring	
Pasc	him Bardhaman	Date o	of Performance(	; 22.07.2023-28.07.2023	
West	t Bengal – 713 212	Ref N	o. Date	: 3322000242,Dated:23.05.2023	
	An	alysis	Result		
Loca	tion : Near Head ESP		Date of sampl	ling : 19.07.2023	
Sam	pling Done by: S.Ghosh/P.Mahato		Sampling done as per : CPCB Guidelines (Volume-1)		
Envi	ronmental Condition : Heavy Rainfall				
SI. No.	Pollutants		Result	Method of Test Reference	
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>		171	IS 5182 : Part.4-1999,(RA-2014)	
2	Respirable Suspended Particulate Matter in p	µg/m³	92	IS 5182: Part 23 : 2012	
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu g/m^3$		5.9	IS: 5182 (Part-2)-2001,(RA-2012)	
4	Nitrogen dioxide (NOz) in $\mu g/m^3$		24.6	IS: 5182 (Part- 6)-2012	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>		869	IS: 5182 (Part- 10)- (RA-2017)	
6	Lead (Pb) in µg/m <sup>3</sup>		0.05	EPA 10-3.2 & 5.0	

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

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(Benimadhab Gorai, Chemist) (Authorized Signatory)

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	Т	EST RE	PORT	DDC NO : QL5/SAMP/08-A/00
Nam	e & Address Of the Customer :		rt No.	: QLS/MR/A/23-24/C/370
M/s.	Neo Metaliks Ltd.	Date		: 28.07.2023
Vill +	P.O. : Gopalpur	Samp	le No.	: QLS/MR/A/23-24/370
P.S. :	Kanksa, Durgapur	Samp	le Description	: Work Zone Monitoring
Pascl	him Bardhaman	Date	of Performance(	s) : 22.07.2023-28.07.2023
West	t Bengal – 713 212	Ref N	o. Date	: 3322000242,Dated:23.05.2023
	A	nalysis	Result	
Loca	tion : Near Ground Hopper		Date of samp	ling : 17.07.2023
Sam	pling Done by: S.Ghosh/P.Mahato		Sampling done as per : CPCB Guidelines (Volume-1)	
Envir	ronmental Condition : Heavy Rainfall			100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100
SI. No.	Pollutants		Result	Method of Test Reference
1	Total Suspended Particulate Matter in µg/r	n <sup>3</sup>	203	IS 5182 : Part.4-1999,(RA-2014)
2	Respirable Suspended Particulate Matter in	n µg/m³	107	IS 5182: Part 23 : 2012
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>8</sup>		6.4	IS: 5182 (Part-2)-2001,(RA-2012)
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>		26.0	IS: 5182 (Part- 6)-2012
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>		572	IS: 5182 (Part- 10)- (RA-2017)
6	Lead (Pb) in µg/m <sup>3</sup>		0.06	EPA 10-3.2 & 5.0

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

PURC

(Benimadhab Gorai, Chemist) (Authorized Signatory)

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DOC NO : QLS/SAMP/08-A/00

Name & Address Of the Customer :	Report No.	: QLS/MR/A/23-24/C/542
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/542
P.S. : Kanksa, Durgapur	Sample Description	: Work Zone Monitoring
Paschim Bardhaman	Date of Performance(s)	; 17-25.09.2023
West Bengal – 713 212	Ref No. Date	: 3322000242,Dated:23.05.2023

#### **Analysis Result**

Locat	Location : Near Ground Hopper		Date of sampling : 10.09.2023	
Sampling Done by: S.Ghosh/P.Mahato		Sampling done as per : CPCB Guidelines (Volume-1)		
Envir	onmental Condition : Light Rainfall			
SI. No.	Pollutants	Result	Method of Test Reference	
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	103	IS 5182 : Part.4-1999,(RA-2014)	
2	Respirable Suspended Particulate Matter in µg/m <sup>3</sup>	68	IS 5182: Part 23 : 2012	
3	Sulphur dioxide (SO2) in µg/m3	6.0	IS: 5182 (Part-2)-2001,(RA-2012)	
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	25.4	IS: 5182 (Part- 6)-2012	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	629	IS: 5182 (Part- 10)- (RA-2017)	
6	Lead (Pb) in µg/m <sup>3</sup>	<0.02	EPA IO-3.2 & 5.0	

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

for Qualissure Laboratory Services Reviewed & Authorized By

> Benimadhab Gorai, Chemist (Authorized Signatory)

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DOC NO : QLS/SAMP/08-A/0D

Name & Address Of the Customer :	Report No.	: QL5/MR/A/23-24/C/541
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023
Vill + P.O. : Gopalpur	Sample No.	: QL5/MR/A/23-24/541
P.S. : Kanksa, Durgapur	Sample Description	: Work Zone Monitoring
Paschim Bardhaman	Date of Performance(s)	: 17-25.09.2023
West Bengal – 713 212	Ref No. Date	: 3322000242,Dated:23.05.2023

### **Analysis Result**

Location : Near Head ESP	Date of sampling : 10.09.2023		
Sampling Done by: P.Mandal/P.Mahato	Sampling done as per : CPCB Guidelines (Volume-1)		
Environmental Condition : Light Rainfall			
si l			

SI. No.	Pollutants	Result	Method of Test Reference
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	187	IS 5182 : Part.4-1999,(RA-2014)
2	Respirable Suspended Particulate Matter in µg/m <sup>3</sup>	120	IS 5182: Part 23 : 2012
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	6.1	IS: 5182 (Part-2)-2001,(RA-2012)
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	28.0	IS: 5182 (Part- 6)-2012
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	812	IS: 5182 (Part- 10)- (RA-2017)
6	Lead (Pb) in µg/m³	0.09	EPA IO-3.2 & 5.0

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

for Qualissure Laboratory Services **Reviewed & Authorized By** 

Benimadhab Gorai, Chemist (Authorized Signatory)

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DOC NO : QLS/SAMP/08-A/00

TEST REPORT			
Name & Address Of the Customer :	Report No.	: QLS/MR/A/23-24/C/540	
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023	
VIII + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/540	
P.S. : Kanksa, Durgapur	Sample Description	: Work Zone Monitoring	
Paschim Bardhaman	Date of Performance(s)	: 17-25.09.2023	
West Bengal – 713 212	Ref No. Date	: 3322000242,Dated:23.05.2023	

### **Analysis Result**

Locat	ocation : Near Tail ESP		Date of sampling : 09.09.2023	
Samp	Sampling Done by: P.Mandal/P.Mahato		e as per : CPCB Guidelines (Volume-1)	
Envir	onmental Condition : Light Rainfall			
SI. No.	Pollutants	Result	Method of Test Reference	
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	117	IS 5182 : Part.4-1999,(RA-2014)	
2	Respirable Suspended Particulate Matter in $\mu g/m^3$	75	IS 5182: Part 23 : 2012	
3	Sulphur dioxide (SO2) in µg/m <sup>3</sup>	6.6	IS: 5182 (Part-2)-2001,(RA-2012)	
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	27.1	IS: 5182 (Part- 6)-2012	
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	721	IS: 5182 (Part- 10)- (RA-2017)	
6	Lead (Pb) in µg/m <sup>3</sup>	<0.02	EPA 10-3.2 & 5.0	

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by :

for Qualissure Laboratory Services **Reviewed & Authorized By** 

Benimadhab Görai, Chemist (Authorized Signatory)

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DOC NO : QLS/SAMP/08 A/00 TEST REPORT Name & Address Of the Customer : Report No. : QLS/MR/A/23-24/C/539 Date : 25.09.2023 M/s. Neo Metaliks Ltd. Sample No. Vill + P.O. : Gopalpur : QLS/MR/A/23-24/539 Sample Description P.S. : Kanksa, Durgapur : Work Zone Monitoring Paschim Bardhaman Date of Performance(s) : 17-25.09.2023 West Bengal - 713 212 Ref No. Date : 3322000242, Dated: 23.05.2023 Analysis Result Location : Near Metal Bay Date of sampling : 09.09.2023 Sampling Done by: P.Mandal/P.Mahato Sampling done as per : CPCB Guidelines (Volume-1) Environmental Condition : Light Rainfall

si. Io.	Pollutants	Result	Method of Test Reference
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	93	IS 5182 : Part.4-1999,(RA-2014)
2	Respirable Suspended Particulate Matter in $\mu\text{g}/\text{m}^3$	.66	IS 5182: Part 23 : 2012
3	Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	7.4	IS: 5182 (Part-2)-2001,(RA-2012)
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	28.3	IS: 5182 (Part- 6)-2012
5	Carbon Monoxide (CO) in µg/m <sup>3</sup>	984	IS: 5182 (Part- 10)- (RA-2017)
6	Lead (Pb) in µg/m <sup>1</sup>	<0.02	EPA IO-3.2 & 5.0

NOTE: Fugitive emission Standard - 4000 µg/m<sup>3</sup> as per Environment (Protection) rules, 1986.

Report Prepared by : (A

for Qualissure Laboratory Services Reviewed & Authorized By

Benimadhab Gorai, Chemist (Authorized Signatory)

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Annexure- XII

Park Plaza,71 Park Street, 6F , North Block,Kolkata Pin - 700016 Tel : 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CIN No : U27109WB2003PLC097231

# PURCHASE ORDER

PO	Number ; ;	3522000837							Date : 07	.09.2023
Details of supplier REDSHIFT ENVIRONMENTAL SYSTEMS PVT LTD 1ST FLOOR, N/331 BAISHNABGHATA PATULI KOLKATA State Name : West Bengal StateCode : 19 GSTIN : 19AAJCR5780L1ZL PAN : Contact Details :						Other References Your reference : OFFER / 12.08.2023 Our Reference : / RFQ Number : Contact Person : Contact Number;				
RE 1S KO Sta GS	T FLOOR, N/: LKATA te Name : We	IRONMENTAL SYSTEMS F 331 BAISHNABGHATA PAT	VT LTI ULI teCode		Nec M GOPA DURG State I GSTIN	To Addres letaliks Limi LPUR APUR 7132 Vame : Wes I : 19AABCN AABCN851	ted 212 at Bengal N8514G1ZE		nteCode : 19	1
Sr. No:	ltem Code	Description	Unit	H\$N / SAC	Ref.No	Quantity	Price / Unit	Dis %	Dis. Amt	Amount
1	PC95003474	SWIVELLING HOOD	NOS		1522000772	1.000	275,000.00			275.000.00
500	PC95003475				1		/	CGS	ST @ 9.00 %	24,750.00
2	1 COMPANY	FAN WITH MOTOR FOR CAST HOUSE DE SYSTEM	NOS		1522060772	1,000	550,000.00		1. 1. 2	The second se
						h 1			ST @ 9.00 %	
3	SP60001056	BAG HOUSE UNIT FOR	NOS		1522000772				T@ 9.00 %	
		CAST HOUSE DE SYSTEM		-	Constant of the	1.000	1,375,000.00		237.5	100 10000 000
									T @ 9.00 % T @ 9.00 %	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
the second second		Twenty Two Lakh only					Val.Excl.		1 22 3.00 78	123,750.00
	the second s	Twenty Five Lakh Ninety Six Th	ousand	only			Order Va	kue		2,596,000.00
	ns & Conditio									
11 F	Basis	EX WORKS FACT								
	s & Duties	GST EXTRA 18%								
reigi 'aym	ent Terms	FRE DELIVERY A 1. ADVANCE 20% 2. 60% amount to 3. 10% amount with 4. BALANCE 10% (PERFORMANCE	TO BE I be paid a GST to TO BE P	PAID AGA efter inspe bu paid a AID AFTE	Clion at your s flor reciept of r R SUCCESSE	te before DIS noterials at s 10. course	SPATCH Ite.	ot one		G COMISSINNO
cope	ofWork									167120705620020202020200000
		1. A NEW BIGGER BLAST- FURNACE 2. THE BAG FILTE UTILIZED. 3. NEW PULSING 4. OLD FILTER BA BE USED. 5. THE OLD FAN V ARRANGEMENT V 6. THE EXISTING LOWI AROUND ONE YEP	R WITH GB AND WITH MC WITH AC STRUCT R SIZE	INCREAS GEMENT CAGES TOR WIL CESSOR URE IS T DUCTING	WITH VALVES TO BE REMOV	TO BE SUP TO BE SUP TO BE SUP FED AND NE FED BY NEW	PLIED, EXIST PLIED W LONGER LY SUPPLIE	'ING HO SIZE FIL D FAN V	PPER, RAV TER BAGS / VITH MOTOR	ETC ARE TO BE AND CAGES TO RAND DRIVE
1	PRIYOBROTO								RA	1 a
TE I	Prepared By Pasies mention of	white must have a light of Management and	OM LIPE	1/RAC and 3	OF head or of				Approved B	you
	Your GST requistr	disons of sala/services are not appl ation number should be quoted in y will be tocepted only against subm	CHLINE KO L	10		antinvo ice Tor A	astar payment .			
-								Pag	e:10f2	



ULR : TC820723700003971F

Idma Laboratories Limited



**Annexure- XIII** 

# TEST REPORT

Lab No.	250923L-FD-019	)		Page No. 1/4		
Customer#		Neo Metaliks Limited Gopalpur, Durgapur -713212 West Bengal				
Type of Sampl	e#	Ground Water				
Customer's Description of Sample#		Ground Water				
Quantity#		2 Ltr. + 250 ml				
Packing, Mark	ings, Seal & Quantity#	Plastic Bottle & Glass Bottle, Loc-Near RMHS/PCM Road Side				
Mode of Collec	ction of Sample	Sample Collected by Lab Person				
Work Order No	o.#	3322000449	Dated	28/08/2023		
Date of Receip	pt of Sample	25/09/2023				
Period of Anal	ysis	25/09/2023 To 30/09/2023				
Visual Observ	ation	N/A				
Date of Report	ting	30/09/2023				
Testing Protoc	loci	IS 10500: 2012, Amdt 1,2,3 & 4				
		DECUN TO				

RE	s	U	LI	TS
	-	-	_	~

			16	NLO	ULIS	
No.			rements	Test Method		
				Acceptable limit	Permissible limit	421.04043405605070 1
	Chemical Testing ( Water )	1		3	51	-
1	Colour /Cl.4.0, Table -1-i)	Hazen	<1	Max 5	Max 15	IS:3025 (Part 4 ) : 2021
2	Odour /Cl.4.0, Table -1-ii)	- 2	Agreeable	Agreeable	Agreeable	IS:3025 (Part 5 ) : 2018
3	pH value /Cl 4.0, Table -1-iii)	15	7,19	6.5-8.5	No relaxation	IS:3025 (Part 11 ) : 2022
4	Turbidity /Cl.4.0, Table -1-v)	NTU	<1	Max 1	Max 5	IS:3025 (Part 10 ) : 1984
5	Total Dissolved Solids , CI.4.0, Table -1-vi)	mg/l	171	Max 500	Max 2000	IS 3025 (Part 16 ) : 1984
6	Aluminium (as Al), Cl.4.0, Table -2-i)	mg/l	BLQ (LOQ -0.0005)	Max 0.03	Max 0.2	IS:3025 (Part 55 ) : 2003
1	Ammonia (as total	mg/l	BLQ(LOQ-0	Max 0.5	No relaxation	IS:3025 (Part 34.): 1988





#### Idma Laboratories Limited

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- Haryana (India)
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- The Test Report in full or parts shall not be used for promotional or publicity purpose.
  Lend disputes an estimated to Parability, Artistativities and
- Legel disputes are subjected to Parchikula Judiistaction only.
  Any commentativities because in this Task linear to be a subjected by the subject of the subject
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# TEST REPORT

Lab No. 250923		250923L	-FD-019					Page No. 2/4
S.No.	Test Para	meter	Units	Results	Requir	ements	Test Method	
					Acceptable limit	Permissible limit		
7	ammonia -N), C Table -2-ii)	1.4.0,		5				
8	Anionic deterge MBAS ), CI.4.0, -2-iii)	10000100	mg/l	BLQ(LOQ-0. 05)	Max 0.2	Max 1.0	Annex K of IS:13428	: 2005
9	Boron (as B ) , ( Table -2-v)	CI.4.0,	mg/l	0.006	Max 0.5	Max 2.4	IS 3025 (part 57 ) : 2021	
10	Calcium (as Ca Table -2-vi)	), CI.4.0,	mg/l	37.0	Max 75	Max 200	IS:3025 (part 40 ) : 1	991
11	Chloride (as Cl) Table -2-viii)	), GL4.0,	mg/l	13.6	Max 250	Max 1000	IS 3025 (part 32.) : 1988	
12	Copper (as Cu Table -2-ix)	), CI.4.0,	mg/l	BLQ (LOQ -0.0005)	Max 0.05	Max 1.5	IS:3025 (part 42 ) : 1992	
13	Fluoride (as F), Table -2-x)	CI.4.0,	mg/l	0.3	Max 1.0	Max 1.5	IS:3025 (part 60) : 2008	
14	Free residual c CI.4.0, Table -2	2000 - Anna - A	mg/l	BLQ(LOQ-0. 1)	Min 0.2	Max 1	IS:3025 (part 25) : 2021	
15	Iron (as Fe ), C Table -2-xii)	14.0,	mgð	BLQ (LOQ -0.0005)	Max 1.0	No relaxation	IS:3025 (part 53) : 2	003
16	Magnesium (as Cl.4.0, Table -3		mg/l	6.1	Max 30	Max 100	IS:3025 (part 46) : 1	994
17	Manganese (a CI.4.0, Table -	49.CUM6	mg/l	BLQ (LOQ -0.0005)	Max 0.1	Max 0.3	IS:3025 (part 59) : 2	006
18	Nitrate (as NO Table -2-xvi)	3), Cl.4.0,	mgð	BLQ(LOQ-1 0)	Max 45	No relaxation	IS:3025 (part 34) : 1	968
19	Phenolic comp C6H5OH), CI 4 -2-xvii)	A	ngil	BLQ(LOQ-0 001)	Max 0.001	Max 0.002	IS:3025 (part 43) : 1	992
20	Selenium , (as CI.4.0, Table -	CCCC27100	mgA	BLQ (LOQ -0.0005)	Max 0.01	No relaxation	IS:3025 (part 56) : 2	2003 or IS :15303 : 2003
21	Sulphate , (as CI.4.0, Table -	SP0.2557	mg/l	3.1	Max 200	Max 400	IS:3025 (part 24) : 1	1986
22	Total Alkalinity	y as	mg/l	86.1	Max 200	Max 600	IS:3025 (part 23) : 1	1986





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ULR : TC820723700003971F



# TEST REPORT

Lab No. 250923L		3L-FD-019				Page No. 3
S.No.	Test Parameter	Units	Results	Requir	rements	Test Method
				Acceptable limit	Permissible limit	
22	calcium carbonate , CI.4.0, Table -2-xxi					
23	Total Hardness (as CaCO3), Cl.4.0, Table -2-xxiii)	mg/l	117.6	Max 200	Max 600	IS:3025 (part 21) : 2009
24	Zinc (as Zn ), Cl.4.0, Table -2-xxiv)	mg/l	BLQ (LOQ -0.0005)	Max 5	Max 15	IS:3025 (part 49) : 1994
25	Cadmium(as Cd ), Cl.4.0, Table -3-i)	mg/l	BLQ (LOQ -0.0005)	Max 0.003	No relaxation	IS:3025 (part 41) : 1992
26	Cyanide (as CN), Cl.4. Table -3-ii)	), mgñ	BLQ(LOQ-0 05)	Max 0.05	No relaxation	IS:3025 (part 27) : 1986
27	Lead (as Pb), Cl.4.0, Table -3-iii)	mg/l	BLQ (LOQ -0.0005)	Max 0.01	No relaxation	IS:3025 (part 47) : 1994
28	Mercury (as Hg), Cl.4.0 Table -3-iv)	), rog/l	BLQ (LOQ -0.0005)	Max 0.001	No relaxation	IS:3025 (part 48) : 1994
29	Total arsenic (As ) Cl.4.0, Table -3-x)	mg/l	BLQ (LOQ -0.0005)	Max 0.01	No relaxation	IS:3025 (part 37) ; 2022
30	Total chromium (as Cr Cl.4.0, Table -3-xii)	), mg/t	BLQ (LOO -0.0005)	Max 0.05	No relaxation	IS:3025 (pert 52) : 2003
	Biological Testing(Water)					÷
31	Total Coliform bacteria, CI.4.1.1, Tabir -(1)	/100ml	Absent	Shall not be detectable in any 100mi sample	8	IS 15185-2016
32	E.col ,CI.4.1.1,Table-6-(1)	/100mi	Absent	Shall not be detectable in any 100ml sample		IS 15185 2016



# Authorised Signatory

### Idma Laboratories Limited

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- Haryana (India)
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# **Idma Laboratories Limited**



# **TEST REPORT**

## ULR : TC820723700003971F Lab No. 250923L-FD-019 Page No. 4/4

Opinion :

×.

Remarks:- The Test report pertains to the sample, as collected by the IDMA lab person from the customer premises and the result related only to the tested sample.BLQ : Below limit of quantification, LOQ limit of quantification.

# Represents details provided by the customer. \*\*End of Report\*\*





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# Qualissure Laboratory Services

Hol. Prantick Paily, 45/361, Bose Pukur Road, Kolkata -700107 Email: quantsure@gmail.com: info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

THACKED DISTOCTOR



DOC NO : QLS/SAMP/08-D/00

Name & Address of the Customer:	ULR No.	: TC627123000000712F
	Report No.	: QLS/MR/W/23-24/C/119
M/s. Neo Metaliks Ltd.	Date	: 31.05.2023
Vill + P.O. : Gopalpur	Sample No.	: QL5/MR/W/23-24/119
P.S. : Kanksa, Durgapur	Sample Description	: Drinking Water (Borewell)
Paschim Bardhaman	Sample Mark/ Location	: MBF Plant At 7 AM
West Bengal – 713 212	Sample Drawn On	: 23.05.2023
	Date of Performance(s)	: 24.05.2023-30.05.2023
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: 3322000242, Dated: 23.05.2023

#### Analysis Result

SLNo.	Characteristic	Limit as Per IS 10500 :2012Amd. 2	Test Method	Result
1.	E.coli/100ml	Not Detectable	15 15185-2016	Not Detected
2.	Total Coliform Bacteria/100mi	Not Detectable	15 15185-2016	Not Detected

		IS 10500:2012A		
Test Parameter	Test Method	Acceptable Limit	Permissible Limit	Result
Colour in Hazen Units	IS 3025 (Part 4): 1983 (RA 2073)	5	35	-5
Odour	15 3025(Part 5)-1983; PA 2018	Agreeable	Agrocable	Agreeable
pH Value at 25 C	IS 3025 (Part 11)-1984; RA: 2019	65-8.5	No Relaxation	6.57
Turbidity in NTU	/S 3025 (Part 10)-1984, RA: 2017	1	5	<1.0
Total Dissolved Solids (as 105) in ing/l	IS 3025(Part 16) 1984, RA 2017	500	2000	314
Aluminium (as Al) in mg/l	15 15302 2003 (RA 2019)	0.03	0.2	+0.01
Ammonia as NH <sub>2</sub> in mg/l	15 3025 (Part 34): 1988.RA 2019	0.5	No Relaxation	<0.1
Anionic Detergents(as MBAS) in mg/l	15 13428-2005(Amtex K) ; 8A-2018	0.2	10	<0.02
Boron(as B) in mg/l	IS 13428-3005(Annex L), #A:2018	0.5	2.4	<0.5
Calcium(as Ca) in mg/l	IS 3025 (Part 40)-1991, RA: 2019	75	200	56.4
Chioride(as CI) in mg/l	r5 3025 (Part 32) 1988, RA: 2019	250	1000	63.5
Copper(as Cu) in mg/l	IS 3025 (Part 42): 1992 ; RA 2019	0.05	1.5	<0.02
Fluoride(as F) in mg/l	APHA 24th Edition 2023, 4500 F D	1.0	15	<0.1
Free Residual Chlorine in mg/l	15 3025 (Part 26) 1986 RA: 2021	0.2	1.0	<0.1
from (as Fe) in mg/l	15 3025(Part 53)-1988 RA: 2019	1.0	No Relaxation	2.19
Magnesium(as Mg) in mg/l	APHA 24th Edition: 2023, 3500 Mg	30	100	20.3
Manganese (as Mn) in mg/l	15 3025 (Part 59): 2006 RA 2019	0.1	0.3	<0.02
Nitrate (as NO <sub>1</sub> ) in mg/l	15 3025 (Part 34)-1986 RA: 2019	45	No Relaxation	<0.5
Phenolic Compounds(as CuHiDH) in mg/l	IS 3025 (Part 43)-1992 RA: 2019	0.001	0.002	<0/001
Selenium(as Se) in mg/l	IS 15303-2003; RA : 2013	0.01	No Relaxation	<0.01
Sulphate (as SGs) in mg/l	15 3025 (Part 24)-1986, #A: 2022	200	400	17.6
Afkalinity(as CaCO.)mmg/l	IS 3025 (Part 231-1986, RA. 2019	200	600	253.0
Total Hardness (as CaCO <sub>1</sub> ) in mg/l	15 3025 (Part 21)-1983, RA: 2019	200	600	225.6
Cadmium[as Cd] in mg/l	IS 3025(Part 41)-1992;RA: 2019	0.003	No Relaxation	<0.00
Cyanide(as CN) in mg/l	IS 3025 [Part 27]-1986 RA-2019	0.05	No Relaxation	<0.01
Lead(as Pb) in mg/l	15 3025(Part 47)-1994;RA: 2019	0.01	No Relaxation	<0.01
Mercury(as Hg) in mg/l	IS 3025(Part 48)-1994;RA: 2019	0.001	No Relaxation	<0.00
Arsenic(as As) in mg/l	IS 3025 (Part 37)-1988, RA-2019	0.01	No Relaxation	<0.01
Zinc(as Zn) in mg/l	(5.3025(Part 49) 1994;8A.2019	5	15	<0.0
Total Chromium (as Cr) in mg/l	15 3025 (Par+ 57), 2019	0.05	No Relaxation	<0.0
	Colour in Hazen Units Odour pH Value at 25 K Turbidity in NTU Total Desolved Solids (an TOS) in mg/l Auminium (as Al) in mg/l Aumonia as NH in mg/l Animonia as NH in mg/l Animonia as NH in mg/l Calcium(as Cal) in mg/l Calcium(as Cal) in mg/l Chioride(as F) in mg/l Free Residual Chionne in mg/l Free Residual Chionne in mg/l Fron (as Fe) in mg/l Marganese (as Mn) in mg/l Marganese (as Mn) in mg/l Nitrate (as NO <sub>2</sub> ) in mg/l Phenolic Compounds(as CaHiOH) in mg/l Selenium(as Sci in mg/l Marganese (as Col, in mg/l Selenium(as Sci in mg/l Calcium(as CaCol, in mg/l Calcium(as CaCol, in mg/l Calcium(as CaCol, in mg/l Calcium(as Col in mg/l Calcium(as Col in mg/l Calcium(as Col in mg/l Cadmium(as Col in mg/l) Cadmium(as Col in mg/l) Cadmium(as Col in mg/l)	Colour in Hazen Units      IS 3025 (Part 4): 1983 (RA 2071)        Odour      15 3025 (Part 4): 1983 (RA 2071)        PH Value at 25 (C)      15 3025 (Part 11): 1984, RA: 2019        Turbidity in NTU      15 3025 (Part 10): 1984, RA: 2017        Total Dissolved Solids (an 105) in mg/l      15 3025 (Part 10): 1984, RA: 2017        Auminium (as AU) in mg/l      15 3025 (Part 10): 1984, RA: 2017        Anionic Detergents/as MBAS) in mg/l      15 13428-2005 (Annex K): RA: 2018        Anionic Detergents/as MBAS) in mg/l      15 13428-2005 (Annex K): RA: 2018        Calcium(as Ca) in mg/l      15 3025 (Part 40): 1991, RA: 2019        Chioride(as CI) in mg/l      15 3025 (Part 40): 1991, RA: 2019        Chioride(as CI) in mg/l      15 3025 (Part 40): 1991, RA: 2019        Chioride(as F) in mg/l      15 3025 (Part 40): 1991, RA: 2019        Fluoride(as F) in mg/l      15 3025 (Part 42): 1992; RA: 2019        Fluoride(as F) in mg/l      15 3025 (Part 31): 1988, RA: 2019        Fluoride(as F) in mg/l      15 3025 (Part 31): 1988, RA: 2019        Fluoride(as F) in mg/l      15 3025 (Part 42): 1992; RA: 2019        Margenewick Mg] in mg/l      15 3025 (Part 42): 1998, RA: 2019        Margenewick Mg] in mg/l      15 3025 (Part 42): 1986, RA: 2019        Margenewickas NO) in mg/	Colour in Hazen Units      IS 3025 (Part 4): 1983 (RA 2007)      Acceptable Limit        Edicur      15 3025 (Part 4): 1983 (RA 2007)      5        Diffusion      15 3025 (Part 1): 1983, RA 2018      Agreeable        pH Value at 25 K      is 3005 (Part 1): 1983, RA 2018      Agreeable        pH Value at 25 K      is 3005 (Part 10): 1984, RA 2017      1        Total Disolived Solids (an TDS) in mg/l      is 3025 (Part 16): 1984, RA 2017      500        Autinimum (as Al) in mg/l      is 15 3025 (Part 34): 1986, RA 2019      0.5        Anionic Detergents/as MBAS) in mg/l      is 13 428-2005 (Annex 4): 844-2018      0.2        Boron(as B) in mg/l      is 3025 (Part 32): 1988, RA 2019      0.5        Calcium(as Ca) in mg/l      is 3025 (Part 32): 1988, RA 2019      0.2        Cohoride(as CI) in mg/l      is 3025 (Part 32): 1988, RA 2019      0.5        Calcium(as Ca) in mg/l      is 3025 (Part 32): 1988, RA 2019      0.5        Calcium(as Ca) in mg/l      is 3025 (Part 32): 1987, RA 2019      0.5        Calcium(as Ca) in mg/l      is 3025 (Part 32): 1988, RA 2019      0.05        Fuoride(as F) in mg/l      is 3025 (Part 34): 1992; RA 2019      0.05        Fuoride(as RD) in mg/l      is 3025 (Part 34):	Colour in Hazen Units      Is 3025 (Part 4): 1983 (PA 2017)      Acceptable Limit      Limit        Colour      15 3025 (Part 4): 1983 (PA 2017)      5      15        Odour      6 3025 (Part 13): 1984, RA 2019      6 5.8.5      No Relevation        Turbidity in NTU      15 3025 (Part 10): 1984, RA 2017      1      5        Turbidity in NTU      15 3025 (Part 10): 1984, RA 2017      1      5        Auminium (as Al) in mg/l      15 3025 (Part 16): 1984, RA 2017      0.03      0.2        Auminium (as Al) in mg/l      15 3025 (Part 16): 1984, RA 2019      0.5      No Relavation        Autonic Detergents/as MBAS) in mg/l      15 13428-2005(Annex K): RA-2018      0.2      10        Boron(as B) in mg/l      15 3025 (Part 32): 1988, RA 2019      0.5      2000        Chloride(as CI) in mg/l      15 3025 (Part 32): 1988, RA 2019      0.05      1.5        Evend(as B) in mg/l      15 3025 (Part 32): 1988, RA 2019      0.05      1.5        Evend(as GI) in mg/l      15 3025 (Part 32): 1988, RA 2019      0.05      1.5        Fluoride(as CI) in mg/l      15 3025 (Part 32): 1988, RA 2019      0.05      1.5        Fluoride(as FI) in mg/l      15 3025 (Part 24): 1988

eport Prepared By:

Sa

or Qualissure Laboratory Service Reviewed & Authorized By

S. Chaleso-Locatig Soumy Chakraborty, Microbiologist (Authorized Signatory)

End of the Report------

Qualissure Laboratory Service

Reviewed & Authorized By

Hocanera Bishnupriya Banerjeg, Chemist (Authorized Signatory)

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TEST REPORT



DOC NO : QLS/SAMP/08-D/00

Name & Address of the Customer:	ULR No.	: TC627123000000713F
	Report No.	: QLS/MR/W/23-24/C/120
M/s. Neo Metaliks Ltd.	Date	: 31.05.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/W/23-24/120
P.S. : Kanksa, Durgapur	Sample Description	: Drinking Water (Borewell)
Paschim Bardhaman	Sample Mark/ Location	: MBF Plant At 3.30 PM
West Bengal – 713 212	Sample Drawn On	: 23.05.2023
	Date of Performance(s)	: 24.05.2023-30.05.2023
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: W122505-006, Dated:05.05.2022

# Analysis Result

SI.No.	Characteristic	Limit as Per IS 10500 :2012Amd. 2	Test Method	Result
1.	E.coli/100ml	Not Detectable	IS 15185-2016	Not Detected
2.	Total Coliform Bacteria/100ml	Not Detectable	15 15185-2016	Not Detected

51.			IS 10500:2012A	md. No. 1 & 2	Acre - 107
No.	Test Parameter	Test Method	Acceptable Limit	Permissible Limit	Result
1	Colour in Hazen Units	IS 3025 (Part 4): 1983 (RA 2021)	5	15	6
2	Odour	IS 3025(Part 5)-1983; RA:2018	Agreeable	Agreeable	Agreeable
3.	pH Value at 25%	IS 3025 (Part 11)-1984; RA: 2019	6.5-8.5	No Relaxation	6.82
4,	Turbidity in NTU	IS 3025 [Part 10]-1984; RA: 2017	1	5	<1.0
5,	Total Dissolved Solids (as TDS) in mg/l	IS 3025(Part 16)-1984; RA: 2017	500	2000	198
6.	Aluminium (as Al) in mg/l	IS 15302: 2003 (RA 2019)	0.03	0.2	+0.01
7.	Ammonia as NH <sub>3</sub> in mg/l	IS 3025 (Part 34): 1988;RA:2019	0.5	No Relaxation	-0.1
8,	Anionic Detergents(as MBAS) in mg/l	15 13428-2005(Annex K) ; RA:2018	0.2	1.0	<0.02
9.	Boron(as B) in mg/l	IS 13428-2005(Annex L); RA:2018	0.5	2,4	+0.5
10.	Calcium(as Ca) in mg/l	IS 3025 (Part 40)-1991, RA: 2019	75	200	25.6
11	Chloride(as Cl) in mg/l	IS 3025 (Part 32)-1988, RA: 2019	250	1000	45.0
1Z.	Copper(as Cu) in mg/l	IS 3025 (Part 42): 1992 ; RA 2019	0.05	1.5	<0.02
1.	Fluoride(as F) in mg/l	APHA 24th Edition 2023, 4500 F D	1.0	1.5	<0.1
14.	Free Residual Chlorine in mg/l	IS 3025 (Part 26) 1986 RA: 2021	0.2	1.0	<0.1
15.	Jron (as Fe) in mg/l	IS 3025(Part 53)-1988 RA: 2019	1.0	No Relaxation	<0.05
16	Magnesium(as Mg) in mg/l	APHA 24th Edition- 2023, 3500 Mg	30	100	12.6
17.	Manganese (as Mn) in mg/l	IS 3025 (Part 59): 2006 RA 2019	0.1	0.3	<0.02
18.	Nitrate (as NO <sub>3</sub> ) in mg/l	15 3025 (Part 34)-1986 RA: 2019	45	No Relaxation	<0.5
19,	Phenolic Compounds(as Cath-OH) in mg/l	IS 3025 (Part 43)-1992 RA: 2019	0.001	0.002	<0.001
20	Selenium(as Se) in mg/i	IS 15303-2003; RA : 2013	0.01	No Relaxation	<0.01
21.	Sulphate (as SO4) in mg/l	15-3025 (Part 24)-1986, RA: 2022	200	400	13.2
22	Alkalinity[as CaCO <sub>3</sub> )in mg/l	(\$ 3025 (Part 23)- 1986, RA: 2019	200	600	119.6
23.	Total Hardness (as CaCO <sub>3</sub> ) in mg/l	15 3025 (Part 21)-1983, RA: 2019	200	600	116.5
24.	Cadmium(as Cd) in mg/l	IS 3025(Part 41)-1992;RA: 2019	0.003	No Relaxation	<0.002
25,	Cyanide(as CN) in mg/l	IS 3025(Part 27)-1986;RA: 2019	0.05	No Relaxation	<0.02
26	Lead(as Pb) in mg/l	IS 3025(Part 47)-1994;RA: 2019	0.01	No Relaxation	<0.01
27.	Mercury(as Hg) in mg/l	IS 3025(Part 48)-1994;RA: 2019	0.001	No Relaxation	<0.001
28.	Arsenic(as As) in mg/l	15 3025 (Part 37)-1988, RA- 2019	0.01	No Relaxation	<0.01
29,	Zinc(as Zn) in mg/l	IS 3025(Part 49)-1994;RA: 2019	5	15	<0.02
30.	Total Chromium (as Cr) in mg/l	IS 3025 (Part 52): 2019	0.05	No Relaxation	:0.05

Report Prepared By:

for Qualissure Laboratory Services Reviewed & Authorized By for Qualissure Laboratory Services

**Reviewed & Authorized By** 

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				Soumy Chakraborty, Microbiologist	Bishnupriya Banerjee, Chemist
				(Authorized Signatory)	(Authorized Signatory)
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#### Annexure- XIV





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	TEST REPORT	DOC NO : QLS/SAMP/08-C/00
me & Address of the Customer: s. Neo Metaliks Ltd. + P.O. : Gopalpur . : Řanksa,Durgapur ichim Bardhaman est Bengal – 713 212	Report No. Date Sample No. Date of Performance(s) Sample Description Ref No. Date	: QLS/A/23-24/C/180 : 03.06.2023 : QLS/A/23-24/180 (A-E) : 26.05.2023-02.06.2023 : Noise Monitoring : W122505-006,Dated:05.05.2022
	Ref No. Date	: W

## Analysis Result of Noise

Sampling Done By : P.Mandal/P.Mahato

# Sampling Guideline : As per IS: 9876: 1981 (RA-2001)

Sample No.	Date of Monitoring	Location	Leq dB (A) Day Time	Limit in Leq dB(A) Day time	Leq dB (A) Night Time	Limit in Leo dB(A) Night Time
180A	22.05.2023	Near Main Gate	63.9	65	57.0	55
1806		Near PCM Boundary Wall	57.6	65	45,6	55
180C	23.05.2023	Admin. Building	57,9	65	46.2	55
180D	23.03.2023	Near CPP Cooling Tower	60.4	65	52.7	55
180E	24.05.2023	Near Boundary Wall (North East Side)	59.3	65	45.8	55

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for Qualissure Laboratory Services Reviewed & Authorized By

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#### DOC NO : QLS/SAMP/08-C/00

Name & Address of the Customer:	Report No.	: QL5/MR/A/23-24/C/371
M/s. Neo Metaliks Ltd.	Date	: 28.07.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/371 (A-D)
P.S. : Kanksa,Durgapur	Date of Performance(s)	: 22.07.2023-28.07.2023
Paschim Bardhaman	Sample Description	: Noise Monitoring
West Bengal – 713 212	Ref No. Date	: 3322000242,Dated:23.05.2023

TOFOOD

#### Analysis Result of Noise

Sampling Done By : S.Ghosh/P.Mahato

#### Sampling Guideline : As per IS: 9876: 1981 (RA-2001)

Sample No.	Date of Monitoring	Location	Leg dB (A) Day Time	Limit in Leq dB(A) Day time	Leq dB (A) Night Time	Limit in Leq dB(A) Night Time
371A		Near CPP Cooling Tower	60.6	65	52.5	55
371B	18.07.2023	Near Main Gate	59.8	65	49.6	55
371C		Admin. Building	61.2	65	47.5	55
371D	19.07.2023	Near PCM side Building Wall	54.2	65	45.1	55

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DOC NO : QLS/SAMP/08-C/00

# TEST REPORT

Name & Address of the Customer:	Report No.	: QLS/MR/A/23-24/C/372
M/s. Neo Metaliks Ltd.	Date	: 28.07.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/372
P.S. : Kanksa, Durgapur	Date of Performance(s)	: 22.07.2023-28.07.2023
Paschim Bardhaman	Sample Description	: Noise Monitoring
West Bengal – 713 212	Ref No. Date	: 3322000242,Dated:23.05.202

# Monitoring Result of Noise

Sampling Done By: P. Mahato						
Sampling Guidelir	ne : As per IS: 9876: 1981 (RA-20	01)				
Sample No.	Date of Monitoring	Location	Average dB (A)			
372	19.07.2023	Near Ground Hopper	62.5			

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DDC NO ; QLS/SAMP/08-C/00

Name & Address of the Customer:	Report No.	: QLS/MR/A/23-24/C/552
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/552(A-D)
P.S. : Kanksa,Durgapur	Date of Performance(s)	: 17-25.09.2023
Paschim Bardhaman	Sample Description	: Noise Monitoring
West Bengal – 713 212	Ref No. Date	: 3322000242,Dated:23.05.2023

#### Analysis Result of Noise

Sampling Done By : P.Mandal/P.Mahato

Sampling Guideline : As per IS: 9876: 1981 (RA-2001)

Sample No.	Date of Monitoring	Location	Leq dB (A) Day Time	Limit in Leq dB(A) Day time	Leq dB (A) Night Time	Limit in Leq dB(A) Night Time
552A	09.09.2023	Near CPP Cooling Tower	57,6	65	49.3	55
552B	03.03.2023	Near PCM side Building	59.2	65	47.6	55
552C	10.09.2023	Admin. Building	58.8	65	48.3	55
552D	10.03.2023	Wall Near Main Gate	60.9	65	48.8	55

Report Prepared by :

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DOC NO : QLS/SAMP/08-C/00

Name & Address of the Customer:	Report No.	: QLS/MR/A/23-24/C/553
M/s. Neo Metaliks Ltd.	Date	: 25.09.2023
Vill + P.O. : Gopalpur	Sample No.	: QLS/MR/A/23-24/553
P.S. : Kanksa, Durgapur	Date of Performance(s)	: 17-25.09.2023
Paschim Bardhaman	Sample Description	: Noise Monitoring
West Bengal – 713 212	Ref No. Date	: 3322000242,Dated:23.05.2023

#### Monitoring Result of Noise

Near Ground Hopper

Sampling Done B	y: P. Mahato		
Sampling Guideli	ne : As per IS: 9876: 1981 (RA-2001	U	
Sample No.	Date of Monitoring	Location	Average dB (A)

10.09.2023

Report Prepared by : 🚑

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Benimadhab Gorai, Chemist (Authorized Signatory)

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**Annexure-XV** 

Park Plaza,71 Park Street, 6F, North Block,Kolkata Pin - 700016 Tel: 033-40504050 Email - info@neometaliks.com Website : www.neometaliks.com CIN No : U27109WB2003PLC097231

## **SERVICE ORDER**

Above service line contains below services : -      SET      SET      1.000      160,800.00      Image: Contains below services in the service in th	
SOLACE RENEWABLE ENERGY PVT LT      20,Kankulia Road    Your reference : /      Kolkata    State Name : West Bengal    StateCode : 19      GSTIN : 19AAQCS0957H1ZT    PAN :    Contact Person :      Contact Details :    Service provider address    Service RENEWABLE ENERGY PVT LT    Neo Metaliks Limited      20,Kankulia Road    Vil & PO Gopalpur, Dist Burdwan    Durgapur 713212      State Name : West Bengal    StateCode : 19    State Name : West Bengal    StateCode : 19      GSTIN : 19AAQCS0957H1ZT    PAN :    PAN :    POGopalpur, Dist Burdwan      Contact Details :    Durgapur 713212    State Name : West Bengal    StateCode : 19      GSTIN : 19AAQCS0957H1ZT    PAN :    PAN :    PAIN : AABCN8514G1ZE      Sr.    Item    Description    Unit    HSN /    Ref.No    Quantity    Price /    Dis    Amu.      1    SERVICE FOR SOLAR    I    I22200097    I    I    166      Move service line contains below services : -    -    SGST @ 9.00 %    166      Above service line contains below services : -    -    1.000    160,800.00    166      3001986    ITC OF A	167,100. 15,039. 15,039.
SOLACE RENEWABLE ENERGY PVT LT    Neo Metaliks Limited      20,Kankulia Road    Neo Metaliks Limited      Kolkata    State Name : West Bengal    StateCode : 19      GSTIN : 19AAQCS0957H1ZT    PAN :      Contact Details :    StateCode : 19      Sr.    Item      Description    Unit    HSN /      SAC    Ref.No    Quantity    Price /    Dis    Amount      1    SERVICE FOR SOLAR    122200097    Image: Service For Solar    166      Above service line contains below services : -    SET    1.000    160,800.00    160,800.00    160      3001986    ITC OF ROOF TOP SPV RWP    SET    1.000    6,300.00    160    160      3001986    ITC OF AUTO CLEANIG OF SVP POWER    SET    1.000    6,300.00    6,300.00    6	167,100. 15,039. 15,039.
No.      Code      Image: Mode of the power of th	167,100. 15,039. 15,039.
1      SERVICE FOR SOLAR POWER      1222000097      1      167        CGST @ 9.00 % SGST @ 9.00 %      15        Above service line contains below services : -      CGST @ 9.00 %      15        3001985      ITC OF ROOF TOP SPV POWER SYSTEM 10 KWP      SET      1.000      160,800.00      160        3001986      ITC OF AUTO CLEANIG OF SVP POWER      SET      1.000      6,300.00      6	15,039. 15,039.
Above service line contains below services : -      SET      1.000      160,800.00<	15,039. 15,039.
3001985      ITC OF ROOF TOP SPV POWER SYSTEM 10 KWP      SET      1.000      160,800.00      160        3001986      ITC OF AUTO CLEANIG OF SVP POWER      SET      1.000      6,300.00      6      6	160,800.
OF SVP POWER	
	6,300.
In words - Dungeo One Lakh Sixty Seven Theyeard One Hundred only	167,100.
In words : Rupees One Lakh Ninety Seven Thousand One Hundred Seventy Eight only Order Value 197	197,178.
Terms & Conditions : -      Header text    A/ SCOPE OF WORK & SERVICES: Scope of work & services shall include broadly the following but not limit      1.0 SOLACE scope of work shall include Supply and Installation of 10 KWp Roof Top Solar Photovoltaic (SPV System (Make: Vikram Solar) including Automatic Cleaning System as mentioned in the detailed Bill of Quant enclosed as Annexure#I required for the New Admin Block at M/s Neo Metaliks Ltd. Plant Site at Durgapur, W Bengal, as per the delivery schedule indicated in this Order.      2.0 The detailed specification of the SPV Power System is indicated at Annexure-I.	c (SPV) Pov Quantities
3.0 SOLACE scope of work shall also include procurement of all materials as detailed in the Bill of quantities o as Annexure-I.	tities enclos
4.0 SOLACE shall provide necessary instruments, consumables and facilities for carrying out the Work.	
5.0 SOLACE shall obtain all necessary clearance / approval from NML / NML#s Consultant (M/s CBRE South Pvt. Ltd.) as and when required for the execution of the work.	
6.0 SOLACE shall provide all the required tools & tackles, consumables, measurement instruments, which are necessary for inspection and testing by NML / NML#s Inspectors.	South Asia
SAMAPTI SAIN	

Please mention order number,Unit of Measurement(UOM),HSN/SAC and A/C head in challan/invoice for faster payment . Your general conditions of sale/services are not applicable to us . Your GST registration number should be quoted in your challan/invoice . Material/Services will be accepted only against submission of copy of Tax invoice.



**Annexure- XVI** 

Report on GHG Inventory, Decarbonization program, company's carbon emissions, carbon sequestration activities and carbon offsetting strategies

# for



# **M/S. NEO METALIKS LIMITED**

For the proposed expansion and Upgradation of Pig Iron Manufacturing Plant to a 0.4 MTPA capacity and Inclusion of Steel

# **Melting Shop**

Located at -Gopalpur district Paschim Bardhaman, West Bengal

## **Report provided by**



Applus+ India Private Limited, Branch office: #116, Ground Floor, West of Chord Road, Near Fortis Hospital, 1<sup>st</sup> Block, 2<sup>nd</sup> Stage, Rajajinagar, Bangalore 560 086. Telephone No. 080 - 460 23456

Date - 24-04-2023



**Applus+ India Private Limited** (hereinafter referred toas CONSULTANT) completed this document on the basis of a defined program of work and terms and conditions agreed with the Client. We confirm that in preparing this Document, we have exercised all reasonable skill and care, taking into account the project objectives, the agreed scopeof work, prevailing site conditions.

The CONSULTANT accepts no responsibility to any parties whatsoever, following the issue of the Document, for any matters arising outside the agreed scope of the work. This document is issued in confidence to the Client and Consultant has no responsibility to any third parties to whom this Document may be circulated, in part or in full, and any such parties rely on the contents of the report solely at their own risk.



Dr Abhineet Kr Jha Product Head- Energy & Sustainability

Applus+ India Private Limited

Acplus<sup>®</sup> Report on GHG Inventory, Decarbonization program, company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies for M/s. Neo Metaliks Ltd.

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# Acknowledgement

**Applus+ India Private Limited** is extremely thankful to M/s. Neo Metaliks Limited for providing us the opportunity to conduct the GHG emission Inventory calculation and preparation of Report on Decarbonization program, company's carbon emissions, carbon sequestration activities and carbon offsetting strategies.

Names	Roles

We express sincere thanks to the **management of Neo Metaliks Ltd.** for extending necessary cooperation and providing relevant information to us for the successful completion of thestudy.

**Applus+ India Private Limited** looks forward to their continued support in all future endeavours.

Dr Abhineet Kr Jha Product Head- Energy & Sustainability

Applus+ India Private Limited

Applus<sup>®</sup> Report on GHG Inventory, Decarbonization program, company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies for M/s. Neo Metaliks Ltd.

# A. Project in Brief:

Neo Metaliks Limited (NML), established in 2003 is involved in manufacturing of pig iron using mini blast furnace (MBF) route at Bamunara industrial zone, Paschim Bardhman, West Bengal. The unit has a mini blast furnace of 215 m3, a sinter plant of 33 m2 and a blast furnace gas fired boiler based Captive Power Plant (CPP) of 4.5 MW since 2006 with pig iron manufacturing capacity of 188000 TPA. The unit has consent to operate from WBPCB letter no. C017468 followed by periodical renewals with validity up to 30.04.2022.

NML was granted Environment Clearance for expansion of the existing plant to an integrated iron and steel plant by adding sinter plant (SP), induction furnace (IF), electric arc furnace (EAF) and bar and rod mill vide File No. F.No. J-11011/779/2007-IA II (I), dt.04.11.2008. The unit obtained consent for establishment from West Bengal Pollution Control Board (WBPCB) for the expansion vide NOC No.73027, dt. 01.04.2010. NML implemented only sinter plant while the remaining facility of Electric Arc Furnace (EAF) and Induction furnace (IF) to manufacture billets and wire rods were not implemented within the validity period of EC.

Subsequently on expiry of the above said environmental clearance, NML proposed the expansion of Pig iron plant and inclusion of sponge iron plant and steel melting shop and rolling mill. Accordingly, obtained Terms of Reference (TOR) from Ministry of Environment Forest and Climate Change (MOEFCC) vide File No. F.No. J11011/779/2007-IA II (I), dt. 27.03.2019, as part of the prior environmental clearance process. The proposed metallurgical activity falls under Schedule 3 (a), Category A "Metallurgical industries (ferrous and nonferrous)" as per EIA Notification, 2006 issued by MOEFCC. The proposal underwent public consultation and the final EIA report was submitted for appraisal at MOEFCC. During the appraisal the honorable EAC (industry – 1) suggested the proponent to reduce the foot print, and accordingly, Neo Metaliks Limited (NML) has revised the capacity to 0.4 MTPA of TMT bars and wire rods.

## **Purpose of the Study or GHG Analysis for the proposed Project:**

Terms of Reference (TOR) has been granted by the Ministry of Environment, Forest and Climate Change (MoEFCC) and in compliance to the same, Project Proponent shall submit a study report on Decarbonization program, which would essentially consist of company's carbon emissions, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also
contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

# B. Total Expected Carbon Emission During Operations phase has been calculated as per the GHG Protocol and the results are:

# I. During Operation Phase

- The Study has covered Scope 1, 2 & 3 appropriately and in requirement with the GHG Protocol. Major and most probable source of Carbon emission during the operational phase will be from Fuel Consumption from DG set (Stationary Combustion), Electricity Consumption, Water requirement, Fugitive Emission, Waste Management, Emission from Employee commutation, Vehicle Parking & Associated Facility.
- The total emission of the proposed project during Operational phase is estimated to **be 329848.72 tCO2e/year.**

# **C. Mitigation Measures**

Project Proponent will give more focus on offsetting their carbon emission which are viable and feasible as these areas are under their control like reducing carbon emission from Scope 1 & Scope 2. For Scope 3 several administrative controls and source correction methods will be adopted same is described in chapter 10 of this document.

- 1. 20 % of the auxiliary load can be switched or substituted to Solar Power Grid
- 2. If there is provision of open access in West Bengal (*At present West Bengal is not having Open Access to renewable energy; As Central Government has passed the bill and Revised Electricity Rules is getting effective from 1st of April where it is mentioned as a mandatory requirement to switch over to the renewal source of energy, hence state government is bound to establish and operate such provision on immediate note. West Bengal has initiated the same and soon we will have the access to renewable source of energy in West Bengal). So, Proponent can procure and purchase powerfrom Indian Energy Exchange, so that renewable power can be procured and utilized further it will reduce dependency on conventional power supply or burning of fossil fuels.*

- 3. By doing 3-Tier System Green Belt Development at Proposed Project
- 4. Purchase of Carbon credit
- 5. Implementation and establishment of Carbon Sequestration/Afforestation/Reforestation activity. By doing so the Project will offset the entire Carbon Emission generated during construction phase as well as during Annual Operation.
- 6. Opting Electric Vehicle on behalf of Fossil Fuel Based vehicles will reduce the Carbon Footprint.

# **D.1 Operation Stage Electricity Consumption**

Carbon footprint of the project due to electricity consumption (during operation phase) is very straight forward to estimate. The project's estimated annual energy consumption which includes HVAC, lighting, equipment, services etc., can be reduced by implementing measures like energy efficient lighting, solar PV panels, etc to reduce carbon footprint of the project. The estimated annual energy consumption of the project is referred from the energy calculations for the project.

Electricity consumption per year: 230960640 KWh

Description	Amount of Electricity Consumption	Units	CO2e (tonnes)
Electricity purchased	230960640	kWh	196316.54

D.2.1 Mitigation/offsetting: - Assume if 15-20% of the electricity is substituted by

renewable source (Solar) then,

20% of 230960640 KWH = 46192128 KWH of conventional grid electricity can be substituted which will reduce the GHG emission by (X 0.83) = 38339466.24 KgC02e or **38339.46 tC02e**.

# D.3 GHG emission from Company owned vehicle for employee commutation: -

Assuming 30% of total staff will be commuting by public transport, 30% will be commuting by

car and 40% by bike.

Total emission from the employee commutation per year will be **120 tCO2e**.

**D.3.1 Mitigation/offsetting:** - Assuming 20% of employees are commuting by company

owned EV with the same distance as they suppose to travel otherwise with diesel vehicle.

430 people will be traveling by EV everyday 40 KM per day or 10000 KM per Year and annual

CO2 emission will be **0.26 tCO2e**.

So, Contrast that with India, Where the energy mix has 75% coal and 4% with Natural gas.

As per CEA the data indicates that there is marginal carbon dioxide savings with the adaptation of EV. As per CEA data only 7% per Km CO2 saving through Electric vehicle in India.

So, CO2 saving will be 7% of **0.26 tCO2e= 0.018 tCO2e** 

# **D.4.2 Therefore Operation Phase GHG emission after Mitigation is:**

The emission is mainly from electricity consumption during operation. The total emission of the proposed project during operation is Considered after substituting 20% grid electricity with Solar and 30% employee commutation by company owned EV and lifetime emission (Considering operation period of 25 years) **tCO2e**.

Operation phase emission after mitigation- Annual					
Activity	tCO2e				
Fuel Consumption from DG set (Stationary Combustion):	25.92				
Fuel Consumption from Coke	16.44				
Fuel Consumption from Coal	44.2				
Electricity Consumption	157977.08				
Water requirement	536.48				
Fugitive Emission	60246.59				
Waste Management	340.03				
Emission from Integrated Blast Furnace, Sinter Plant	71578.96				
Emission from Employee commutation	119.9				

Emission from vehicle parking	0.0002
Transportation of Materials	227.56
Business travel	396
Total operation phase GHG Emission	291509.16

# Total operational GHG emission after mitigation is 291509.16 tCO2e.



# Total Lifetime GHG from the said project is assumed to be: 7287729 tCO2

# **D.5 Mitigation/offsetting BY PLANTATION ONLY: -**

To offset the total Operational GHG emission of Neo Metaliks Ltd i.e. **291509.16 tCO2e**, Proponent must plant **780,500 trees** of which will offset total Operational CO<sub>2</sub>e emission in **25 years**. Assume 10 different species of age **Zero** and age **one is planted that too with good survival rate or even with moderate survival rate which is having sequestration rate of 3.5 Kg per tree per year in the beginning and then cumulative increase in the sequestration potential of the tree Considering the Height, Trunk Diameter, Age, Growth Rate**.

In this Calculation we have captured the following:

- i. Carbon Sequestration by Tree
- ii. Litter and Deadwood Biomass Carbon



iii. Soil Carbon.

So, total Operational CO2 emission will be offset in 25 years with 780,500 trees.

# D.6 Summary of the Mitigation Measures: -

After Implementing the mitigation measures and adopting sustainable initiatives the carbon emission will get offset as mentioned in the below table:

Sl. No.	Mitigation measures or Initiatives	tCO2e Reduction	tCO2e After the mitigation in
1	Adopting 20% of the electricity by	38339.46	157977.08
	renewable source (Solar) during		
	Operational phase		
2	Assuming 20% of employees are	0.018	119.9
	commuting by company owned EV		
	with the same distance as they		
	supposed to travel otherwise with		
	diesel vehicle		
3	Balance Carbon to Offset	291509.16 tCO2	2e
	Plantation to offset the lifetime		
	Carbon emission of which will		
	offset total lifetime CO <sub>2</sub> e in 25		
	years	76,000.00	215509.16
	a. Farm Forestry through		
	Bamboo Plantation or		
	Suitable Species		
	Plantation/Miyawaki		
	Forestry which has 30%		
	to 35% higher potential		
	to sequestrate the		
	Carbon- 200,000 trees		
	b. Farm Forestry in 450 Acres	90,000.00	125509.16
	of Land		
Or, Th	e Project Proponent can Purchase Ca	rbon Credit to offs	et their carbon emission.
	case; it is recommended to go for tre	-	-

which will offset the 76,000.00 tCO2e and rest will get offset by Purchasing Carbon Credit.

# **1.0 OVERVIEW**

#### **1.1 PURPOSE OF TOOL**

This document provides guidance on the estimation of greenhouse gas (GHG) emissions from sources associated with Steel Plant. A companion spreadsheet, available at www.ghgprotocol.com, implements the methods described in this document. Together these documents comprise the 'Iron and steel Tool', one of many calculation tools available under the Greenhouse Gas Protocol Initiative, a joint program of the World Resources Institute and the World Business Council for Sustainable Development. This tool may be used by companies for internal or public reporting needs, or to participate in a GHG program. Like wise GHG programs, including voluntary or mandatory programs and emission trading schemes, may also customize this tool for their program's needs.

This guidance explains best practices for the selection and implementation of emission calculation methods, as well as for the collection, documentation, and quality control of data. It often presents different methods for calculating emissions from single sources so that different users of the Iron and Steel tool may match the rigor and detail of their emission inventory to their needs or goals. The guidance has been structured so that any company, regardless of its experience or resources, should be able to produce reliable estimates of its emissions. In particular, default values for virtually all of the parameters in the methods are supplied so that, at the very least, a company needs only to supply data on production volumes or the amount of fuel consumed, for example.

This tool updates the Corporate Standard's previous guidance for the Sponge Iron sector that was issued in 2002. Major revisions in this update include the provision of methods for specific industrial activities within the overall iron and steel manufacturing process. For example, facilities may now account for the emissions from Direct Reduced Iron and sinter production, as well as coke manufacture. Furthermore, this update includes expanded coverage of stationary combustion sources, such as reheating furnaces, which may contribute significantly to an Iron and Steel facility's overall emissions.

Users of the Sponge and Power Tool and of other tools available under the GHG Protocol Initiative should consult the Corporate Standard (available at www.ghgprotocol.org), which outlines best practices for general GHG accounting issues. In particular, the Corporate Standard explains why Sponge and Power companies need to have clearly set their organizational and operational boundaries prior to developing an inventory. Because boundaries constitute a critical issue in GHG accounting that has to be considered prior to the use of this tool, Section 2.0 of this guidance summarizes some basic concepts related to the drawing of boundaries (see Section 2.0). Users should consult the Corporate Standard for further guidance and information.

# **1.2 DOMAIN OF APPLICATION**

The activity in Steel plant generates carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) emissions at various stages during the production process (Figure 2). Although CO2 is easily the main GHG emitted, N2O and CH4 emissions are not necessarily trivial. Hence, the Sponge and Power tool has incorporated methods for each of these three GHGs whenever possible. Figure 1 summarizes the industrial activities and associated GHG emissions that are considered inthis tool.

Please note that this tool does not provide guidance on calculating emissions from transport vehicles ('mobile combustion') or the consumption of purchased electricity, heat and steam. Instead, users interesting in calculating emissions from these sources should consult the relevant tools from the Protocol Initiative's website (<u>www.ghgprotocol.org</u>).

**1.3 Proposed Site Layout** 







#### **Revised Process and Material Flow**





# 2.0 ORGANIZATIONAL & OPERATIONAL BOUNDARIES:

The way organizational and operational boundaries are drawn determines both the sources that are included within an inventory and the emissions from those sources that are reported by a company. Because it is critical that boundaries are consistently and reliably drawn across a company's constituent facilities and units, organizational and operational boundaries are briefly discussed here. Users are strongly encouraged to consult the Corporate Standard for further guidance.

#### **2.1 ORGANIZATIONAL BOUNDARIES**

For corporate inventories, the exact accounting of the emissions from a source depends on whether that source is wholly owned, a joint venture, subsidiary, or other legal entity. The Corporate Standard provides two approaches for determining how such accounting should be undertaken.

I. Equity share approach

A company reports the percentage GHG emissions from a source that mirrors the percentage financial ownership that company has in the source. One exception relates to fixed asset investments: whenever a company owns only a small part of the shares of a source and does not exert significant financial control, the company does not account for that source's emissions.

II. Control Approach

A company reports 100% of the emissions from sources over which it has control. Two alternative criteria can be used to define control:

(a) Financial control. A company exerts financial control over the source if it can direct both the financial and operating policies of the source with a view to gaining economic benefits from such activities.

(b) Operational control. A company has operational control over a source if it has the full authority to introduce and implement its operating policies and practices at the source.

The Corporate Standard encourages companies to use both the equity share approach and a control approach when reporting under voluntary schemes. However, contractual arrangements might determine the ownership of and reporting requirements for GHG emissions, and various other factors might influence the choice of an approach, including:

Liability and risk management. In assessing risk the equity share and financial control approaches might be most appropriate choices.

Management information and performance tracking. The control approaches would allow managers to be held accountable for activities under their control.

Completeness of reporting. Companies may find it difficult to provide matching records or lists of financial assets as proof that sources are correctly accounted for under the operational control approach.

Once an appropriate approach has been determined it should be consistently applied across all of the facilities and units under the control of the reporting company.

# **2.2 OPERATIONAL BOUNDARIES**

Having established its organizational boundaries, a company is then able to establish the scope (or 'operational boundaries') of an emissions source. Robustly defined operational boundaries will help a company better manage the full spectrum of GHG risks and opportunities that exist along its value chain. In particular, the use of scopes helps companies meet the reporting requirements of corporate reporting programs, voluntary GHG registries, and other GHG programs.

Emissions fall under one of three scopes. Scope 1 emissions are 'direct'; that is, they stem from sources that are owned or controlled by the reporting company. Scopes 2 and 3 refer to 'indirect' emissions that originate from sources that are controlled by third parties, but that are nonetheless related to the activities of the reporting company. Scope 2 emissions stem from the consumption of purchased electricity, and Scope 3 emissions from all other indirect sources, notably the third party transport of raw materials.

Scope 2 emissions are not considered in this document, although Scope 3 emissions from the production of coke and of limestone and dolomite are. Otherwise, the methods in this tool pertain to Scope 1 emissions.

# **3.0 METHODOLOGIES**

#### **3.1 INTRODUCTION**

#### <u>Tiers</u>

Many of the methods described in this document are categorized as belonging to one of three tiers. Typically the equations underlying a method do not change amongst tiers. Instead, the values of the parameters forming those equations do, and tiers differ in how much those values are representative of the activities of the reporting company. As the tier level increases from Tier 1 to Tier 3 the values become more specific to the reporting company, leading to greater accuracy in the emissions calculations. A tier system is used here to emphasize the advantages of collecting and using facility-specific information, and to distinguish between the different sets of default factors that are available for some methods (e.g., both Tier 1 and Tier 3 default emission factors are offered for reheating furnaces).

• Tier 1: Tier 1 methods estimate emissions by multiplying production data, such as the volume of fuel used or steel produced, by an industry-specific default emission factor. Tier 1 defaults are supplied for all of the methods in the Iron and Steel Tool, where appropriate.

• Tier 2: Tier 2 methods require data that are less general. For instance, a Tier 2 emission factor might reflect the typical industrial practices within a specific country, whereas a Tier 1 factor constitutes a global default value. Facility-specific data are not considered Tier 2. Tier 2 data might be available from national statistical agencies or industry associations.

• Tier 3: Tier 3 methods require facility-specific data, such as the composition of the fuel combusted at a facility, or the specific types of technologies employed at a facility.

Facilities should ensure that only a single method is used to calculate the emissions from a single source so as to help avoid the double counting of emissions. Particular care should be exercised when fuels have dual energy and process uses, as might happen with blast furnace gases, sinter off gases and coke oven gasses, which, although the product of industrial processes, can also be used to



supply energy to industrial processes. Companies are recommended to use the most accurate method possible given the data they have at hand.

#### Differences between CO2 and CH4/N2O

The recommended methods for calculating CO<sub>2</sub> emissions often differ from those for N<sub>2</sub>O and CH<sub>4</sub> emissions. This is because CO<sub>2</sub> emissions are largely determined by the carbon contents of the consumed materials, whereas N<sub>2</sub>O and CH<sub>4</sub> emissions are much more influenced by the combustion or emission control technologies employed by the industrial apparatus. Consequently, CO<sub>2</sub> emissions are best determined using a material balance approach that tracks the flow of carbon through the industrial process, whereas N<sub>2</sub>O and CH<sub>4</sub> emissions are best determined using equipment or process-specific emission factors. The methods in this guidance will treat CO<sub>2</sub> separately from N<sub>2</sub>O and CH<sub>4</sub>.

N<sub>2</sub>O is only considered by this tool in relation to stationary combustion sources. This is because the N<sub>2</sub>O emissions from the industrial processes specific to the Iron and Steel sector are assumed to be negligible.

#### **Global Warming Potentials**

The Global Warming Potential (GWP) of a greenhouse gas is a measure of how much a given mass of that gas contributes to global warming. GWPs are given on a relative scale that compares the gas in question to carbon dioxide, whose GWP is therefore 1.0. Over a 100 year time horizon the GWP of CH4 is 21, whereas that of N<sub>2</sub>O is 310 (IPPC Second Assessment Report).

In this tool the emissions of each greenhouse gas are multiplied by a relevant GWP to determine the potential impacts on global warming of these emissions. The product of this multiplication is given in units of CO<sub>2</sub>-equivalents (metric tones CO<sub>2</sub>-e.). The spreadsheet program that accompanies this guidance allows facilities to calculate both the absolute emissions of individual GHGs and their CO<sub>2</sub>-equivalency.

# **3.2 STATIONARY COMBUSTION**

Stationary combustion emissions account for roughly half of the overall emissions from an Iron and Steel company and include CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions. Stationary combustion sources belong to four main types:

- 1. Electricity generation; e.g., captive power plant boilers
- 2. Re-heating furnaces (other coal and oil use); e.g., mill sections
- 3. Coke production

Description	Fuel	Amount of Fuel (quantity)	CO2e (tonnes)
Diesel consumption in DG set	Diesel	10800 L/year	25.92
Total Coke consumption per year	Coke	139400 kg/year	16.44
Total coal consumption per year	Coal	44.2 tons/year	44.2

Carbon emissions from Stationary Combustion for proposed project will be from Diesel and Coal consumption which is **86.56 CO2e (tonnes)**.

# **3.3 ELECTRICITY CONSUMPTION**

Carbon footprint of the project due to electricity consumption (during operation phase) is very straight forward to estimate. The project's estimated annual energy consumption which includes HVAC, lighting, equipment, services etc., can be reduced by implementing measures like energy efficient lighting, solar PV panels, etc to reduce carbon footprint of the project. The estimated annual energy consumption of the project is referred from the energy calculations for the project.

Electricity consumption per year from State Electricity Board: 35.38 MW or 230960640 kwh.



Description	Amount of Electricity Consumption	Units	CO2e (tonnes)
Electricity purchased	230960640	kWh	196316.54

The total GHG of the project will produce approx. 196316.54 tCO2e/yr.

### **3.4 WATER REQUIREMENT**

Water is required for Industrial process as well as for Domestic purpose. So, per day Water requirement is 5295 KLD. Therefore, Water requirement per year is 1800300 KL.

Description	Material Used	Amount of Material Used	CO2e (tonnes)
Water	Water Domestic		536.48

Total water consumption after expansion is 1800300 KL per year and total GHG emission is 536.48 tCO2e/ Year.

#### 3.5 FUGITIVE EMISSION

The total fugitive emission from refrigerant, fire extinguisher and STP plant is considered and assumed to be as:

#### **Emission From Fire Extinguisher:**



	78.4 Acre or 317273.54
Total built up area	m2
Number of extinguishers required (1 per 100m <sup>2</sup> )	
As per Chapter 4 of the National Building Code and IS	
2190- Guideline for First Aid Type Fire Extinguishers	3172
Each extinguisher is of 4.5 kg weight	14274
Leakage emission kg	1570.14

**Emissions from fixed systems** are assumed to be 2.5 percent (0.025) of the total capacity of the units for each gas. Emissions from portable equipment are assumed to be 3.5 percent (0.035) of the total capacity of the units for each gas.

#### **Emission From Refrigerant Leakage:**

Approx. 1000 kg of refrigerant will be required for maintaining the ambient temperature inside the facility or the Plant,

As per IIR 5% leakage is considered considering all engineering as well as the administrative control including timely or Planned Preventive maintenance, hence total minimum leakage will be 50 Kg and total GHG emission from the HVAC system to meet the requirement and needs of project will be 133.02 tCO2e.

#### From STP:

Project requirement is approx. 462400 KL and assuming total GHG emission from the STP will be 60,112 tCO2e per year.



# TOTAL FUGITIVE EMISSION

Description	Amount of Consumption	Units	CO2e (tonnes)	EF (kgCO2e/kg or litter)
Fire		Kilogram	1.57	1
extinguisher	1570.14	(kg)	1.57	1
		Kilogram	133.02	
Refrigerant	50	(kg)	155.02	2660.46
STP	462400	KL	60112	0.13 tCO2
Total			60246.59	

Total Fugitive emission = 60246.59 tCO2e/ Year.

#### **3.6 WASTE MANAGEMENT**

During the operation phase, the solid waste generated from the project shall be approx. 680 TPA and Waste Oil 100.3 KLPA.

S. No.	Description	Norms (TPA/KLPA)	tCO2e
1.	Solid waste	680	340
2.	Waste oil	100.3 KL	0.03
То	tal	340.03	

Total Waste Management = 340.03 tCO2e/ Year.



# 3.7 GHG EMISSION FROM INTEGRATED BLAST FURNACE AND SINTER PLANT

There is direct Carbon emission from the integrated Blast Furnace, Sinter Plant and SMS.

Description	Amount of Consumption	Units	CO2e (tonnes)
Blast Furnace	1169.6	TPA	1578.96
Sinter Plant	350000	TPA	70000
Total			71578.96

#### Therefore, the total GHG emission from Integrated plants are 71578.96 CO2e (tonnes) per year.

#### **3.8 EMISSION FROM EMPLOYEE COMMUTATION:**

During the operation phase, the total population of the proposed project is estimated to be 1200 persons.

Assuming 30% of total staff will be commuting by public transport, 30% will be commuting by car and 40% by bike.

Total emission from the employee commutation per year will be 120 tCO2e/Year.

#### **VEHICLE PARKING & FACILITY**

Adequate provision will be made for car/vehicle parking at the project site. There shall also be adequate provision for visitors parking so as not to disturb the traffic and allow smooth movement at the site. Parking details are provided below:



# Parking Proposed:

Area proposed (taking 2% of the total area) for transport truck and employee vehicle parking = 6345 m<sup>2</sup>

CO<sub>2</sub> emissions per second during the parking process when the running speed of the vehicle

is 0 km/h is 0.046 tCO2.

Hence emission from parking is assumed to be 0.0002 tCO<sub>2</sub>e per 40 vehicles at a time in

parking.

Area	Туре	Area per parking required m2	CO2 emissions per second during the parking process when the running speed of the vehicle is 0 km/h (g).	Average Time (s)	Carbon Emissions (g)	Total Carbon Emissions (g) per parking	Total number of car/Trucks in entire area	Total Carbon Emissions (t)
	Forward-							
	park in	15	0.046	80	3.68			
	Forward-							
6345 Sq. m	drive out	15	0.046	50	2.3	5.98	40	0.0002



# **Business Travel by employees/staffs for work purpose**

Assuming 30% of total employee will be having business travel and hotel stay at least 15 times a year and generating 396 tCO2e/Year.

So, the total carbon emission is 396 tCO2e/Year



# **3.9 EMISSION FROM TRANSPORTATION OF MATERIALS**

Carbon footprints through transportation of raw material is also very important factor in the whole picture. Projects emissions due to transportation vary depending on selection of material, distance between extraction and/or manufacturing unit and project site, etc. Furthermore, the project of this size has variation in carbon footprints of the same material, because of availability of the material from the same supplier is uncertain during the whole construction duration. Travelling distance, mode of transportation & type of fuel used for transportation are other major factors associated with carbon emission.

# **3.8.1 Assumptions**

As a general practice, Raw materials are transported from the supplier to the site by trucks. The trucks run on diesel, this is the most common mode of transport and fuel type. Hence, it is not feasible to consider it as base case and proposing any other mode of transport with the efficient one. Where ever possible the material will be sourced from local or nearest located manufacturer.

Material & Supplier	Distance to the site in Km	EF	Mode of Transport (Plant to Site)	KgCO2e
Iron Ore	170	0.22989	Truck	39.08
Coke	30	0.22989	Truck	6.89
Lime	200	0.22989	Truck	45.97
Dolomite	560	0.22989	Truck	128.73
Quartzite	30	0,22989	Truck	6.89
TOTAL				227.56



Therefore, total GHG emission from Transportation of materials will be 227.56 CO2 (tonnes) Per year.

# **4.0 TOTAL GHG EMISSION DURING OPERATION PHASE**

The emission is mainly from Electricity Consumption.

Operation phase emission- Annual		
Activity	tCO2e	
Fuel Consumption from DG set (Stationary Combustion):	25.92	
Fuel Consumption from Coke	16.44	
Fuel Consumption from Coal	44.2	
Electricity Consumption	196316.54	
Water requirement	536.48	
Fugitive Emission	60246.59	
Waste Management	340.03	
Emission from Integrated Blast Furnace, Sinter Plant	71578.96	
Emission from Employee commutation	120	
Emission from vehicle parking	0.0002	
Transportation of Materials	227.56	
Business travel	396	
Total operation phase GHG Emission	329848.72	







#### Appendix I. **Unit Conversion Ratios**

Mass			
1 pound (lb)	453.6 grams (g)	0.4536 kilograms (kg)	0.0004536 metric tons (tonne)
1 kilogram (kg)	2.205 pounds (lb)		
1 short ton (ton)	2'000 pounds (lb)	907.2 kilograms (kg)	
1 metric ton	2'205 pounds (lb)	1'000 kilograms (kg)	1.1023 short tons (tons)
Volume			
1 cubic foot (ft <sup>3</sup> )	7.4805 gallons (gal)	0.1781 barrel (bbl)	
1 cubic foot (ft <sup>3</sup> )	28.32 liters (L)	0.02832 cubic meters (m <sup>3</sup> )	
1 gallon (gal)	0.0238 barrel (bbl)	3.785 liters (L)	0.003785 cubic meters (m <sup>3</sup> )
1 barrel (bbl)	42 gallons (gal)	158.99 liters (L)	0.1589 cubic meters (m <sup>3</sup> )
1 litre (L)	0.001 cubic meters (m <sup>3</sup> )	0.2642 gallons (gal)	
1 cubic meter (m <sup>3</sup> )	6.2897 barrels (bbl)	264.2 gallons (gal)	1'000 liters (L)
Energy			
1 kilowatt hour (kWh)	3412 Btu (btu)	3'600 kilojoules (KJ)	
1 megajoule (MJ)	0.001 gigajoules (GJ)		
1 gigajoule (GJ)	0.9478 million Btu (million btu)	277.8 kilowatt hours (kWh)	
1 Btu (btu)	1'055 joules (J)		
1 million Btu (million btu)	1.055 gigajoules (GJ)	293 kilowatt hours (kWh)	
1 therm (therm)	100'000 btu	0.1055 gigajoules (GJ)	29.3 kilowatt hours (kWh)
Other			
Kilo	1'000		
Mega	1'000'000		
Giga	1'000'000'000		
Tera	1'000'000'000'000		
1 psi	0.06895 bar		
1 kgf / cm <sup>3</sup> (tech atm)	0.9807 bar		
1 atmosphere (atm)	1.01325 bar	101.325 kilo pascals	14.696 pounds per square inch (psia)
1 mile (statue)	1.609 kilometers		
1 metric ton CH <sub>4</sub>	21 metric tons CO <sub>2</sub> equivalent*		
1metric ton N <sub>2</sub> O	310 metric tons CO <sub>2</sub> equivalent*		
1 metric ton carbon	3.664 metric tons CO <sub>2</sub>		

# **5.0 WHAT CAUSES CARBON EMISSIONS?**

- The effects of carbon emissions are apparent to even the most ignorant person these days, as everyone knows the world has gotten hotter over the years.
- We have only climate change to blame for this and considering that the IPCC estimates 76% of greenhouse gases to be carbon emissions, it's fair to say that a substantial part of the blame for climate change goes to carbon emissions.
- But where exactly is carbon emitted from? What are the root causes of an everwarming planet (the statistics reveal that our planet was 35% hotter in 2018 than in 1990).





# 6.0 Summary of Mitigation Measures

Project Proponent will give more focus on offsetting their carbon emission which are viableand feasible as these areas are under their control like reducing carbon emission from Scope 1 & Scope 2. For Scope 3 several administrative controls and source correction methods will be adopted same is described in chapter 10 of this document.

- 7. 20 % of the auxiliary load can be switched or substituted to Solar Power Grid
- 8. If there is provision of open access in West Bengal (At present West Bengal is not having Open Access to renewable energy; As Central Government has passed the bill and Revised Electricity Rules is getting effective from 1st of April where it is mentioned as a mandatory requirement to switch over to the renewal source of energy, hence state government is bound to establish and operate such provision on immediate note. West Bengal has initiated the same and soon we will have the access to renewable source of energy in West Bengal) so Proponent can procure and purchase power from Indian Energy Exchange, so that renewable power can be procured and utilized further it will reduce dependency on conventional power supply or burning of fossil fuels.
- 9. By doing 3-Tier System Green Belt Development at Proposed Project
- 10. Purchase of Carbon credit
- 11. Implementation and establishment of CarbonSequestration/Afforestation/Reforestation activity. By doing so the Project will offset the entire Carbon Emission generated during construction phase as well as during Annual Operation.
- 12. Detailed Carbon Sequestration Plan has been explained in Chapter 7, where
  - Duration of Offsetting generated carbon or GHG Emission has been described; •
  - Year wise carbon offsetting is calculated •
  - Investment Cost as per the capital cost is calculated, •
  - Carbon Sequestration Budgeting and Social Returns from the Green BeltDevelopment • have been calculated



# 7.0 GREEN BELT DEVELOPMENT PLAN

#### 7.1 Greenbelt / Plantations Program:

Greenbelt means planting of special type of plants suitable to that particular agroclimatic zone and soil characteristics in a place which will make the area cooler, reduce air pollution, prevent soil erosion and further improve the soil fertility status. A green belt around the periphery of boundary and road side will be created to avoid erosion of soil, prevention of landslides, minimize the air pollution and noise pollution in the project area. The green plants are capable of absorbing air pollutants and forming sinks for pollutants. Leaves with their vast area in a tree crown, absorb pollutants on their surface, effectively reducing their concentration and noise level in the ambient.

According to the CPCB guide line there are 15 Agroclimatic regions, each of these regionis further divided in to 68 sub zones based on annual rain fall, Climatic condition and soil types. The species recommended for the Greenbelt are quite adopted to such Climatic condition and grow well in the above soil types.

#### **Existing Green Belt**

A greenbelt development plan will be prepared and implemented along with the implementation of project. Total green belt & plantation area shall be 5.10 Acres. i.e.33% of total project area. The main objective of the greenbelt is to provide a barrierbetween the plant and the surrounding areas. The species selection will depend upontype of soil and local species with good survival rate will be selected. Total landavailable is 0.59 Acres for the proposed project. This land is sufficient for the setup of the facility for the Ferro alloys plant. 0.19 Acres land has been earmarked for greenbeltas per standard norms, which is 33.33 % of total plot area.

# **Proposed Green Belt**

Extensive green belt development will be started during the construction phase, which will continue till the operation of the plant. About 2500-3000 trees will be planted per hectare all around the plant, approach roads and township premises. Locally available types of trees which are resistant to pollutants will be planted. In addition to above, all open spaces available within the premises will be developed as nursery, park, gardens

and other forms of greenery. 5 m wide greenbelt will be developed along the plant



premises, as per land available. A nursery will be developed where 100,000 saplings will be raised every year for plantation purpose. Apart from greenbelt, extensive lawns, gardens and approach roadside plantation will be carried out at all vacant spacesinside the plant premises.

#### 6.0.1 Guidelines & Techniques for Green Belt Development:

Extensive survey in the project area was undertaken to observe the structure and composition of vegetation. Hence a combination of plant is selected depending upon the topographical suitability and species selected as per SPCB Guideline. The soil characteristics were kept in mind. Based on this survey and environmental conditions suitable native plants species have been proposed for green belt development plan. Plantation along roads must take into account visibility aspects on curves so as to ensure safe driving. Plantation will be done in a three tier system consisting of large trees, smaller trees and shrubs, Whereas some grasses and floweringplants are grown on lawns and garden.

- 1. First layer consisting of shrubs and grasses.
- 2. Second layer consisting of smaller trees.
- 3. Third layer consisting of Large trees.

#### 6.1 Development of Green Belt:

The plantation matrix adopted for the green belt development includes pit of 0.3 m x

0.3 m size with a spacing of 2 m x 2 m. In addition, earth filling and manure may also berequired for the proper nutritional balance and nourishment of the sapling. It is also recommended that the plantation has to be taken up randomly and the landscaping aspects could be taken into consideration. Multi-layered plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt. In addition, creepers will be planted along the boundary wall to enhance its insulation capacity.

Greenbelt is a set of rows of trees planted in such a fashion, to create effective barrier between the project and surroundings. The greenbelt helps to capture the fugitive emissions, attenuate the noise levels in the existing project and simultaneously improving aesthetics of the surroundings. The greenbelt around the industry wall will be developed in keeping view of the following objectives.



- i. Planting of trees in each row will be in staggered pattern.
- ii. The short trees will be planted in the first rows and the tall trees in the outerrows around the purview of the project site.
- iii. Since the trunks of the trees are generally devoid of foliage, it will be useful tohave shrubs in front of the trees so as to give coverage to this portion.
- iv. Sufficient spacing will be maintained between the trees to facilitate effectiveheight of the greenbelt.
- v. Plants of native origin, fast growing type with canopy and large leaf indexshall be preferred.

### 6.3 Selection of Plant Species for Green Belt Development:

The selection of plant species for the development depends on various factors suchas climate, elevation and soil. The plants would exhibit the following desirable characteristics in order to be selected for plantation.

- 1. The species should be fast growing and providing optimum penetrability.
- 2. The species should be wind-firm and deep rooted.
- 3. The species should form a dense canopy.
- 4. As far as possible, the species should be indigenous and locally available.
- 5. Species tolerance to air pollution like SO2 and NO2 should be preferred.
- 6. The species should be permeable to help create air turbulence andmixing within the belt.
- 7. There should be no large gaps for the air to spill through.
- 8. Trees with high foliage density, leaves with larger leaf area and hairyon both the surfaces.
- 9. Ability to withstand conditions like inundation and drought.
- 10. Soil improving plants (Nitrogen fixing rapidly decomposable leaf litter).
- 11. Attractive appearance with good flowering and fruit bearing.
- 12. Bird and insect attracting tree species.
- 13. Sustainable green cover with minimal maintenance.



# Table No. 1: Tree species selected for Greenbelt as per CPCB

ТҮРЕ	Botanical Name	Common Name			
	SCHEDULES OF TREES				
T1	Caesalpinia pulcherrima	Krushnachuda			
T2	Peltophorum ferrugineum	Radhachuda			
Т3	Mesua feria	Nageswar			
T4	Azadirachta indica	Neem			
T5	Millingtonia hortensis	Akash neem			
T6	Calophyllum inophyllum	Polango			
Τ7	Saraca indica	Ashok			
T8	Pongamia glabra	Karanja			
Т9	Michelia champaca	Champa			
T10	Mimusops elengi	Bakul			
T11	Morus australis	Tuta			
T12	Thespesia populnea	Umbrella tree			
T13	Aegle marmelos	Bela			
T14	Mangifera indica	Mango			
T15	Phyllanthus emblica	Amla			
T16	Psidium guava	Guava			
T17	Tamarindue indica	Tentuli			
T18	Sanmanea saman	Bada chakunda			
T19	Syzygium cumini	Jamu			
T20	Alstomia scholaris	Chatina			
T21	Leucaena leucocephala	Su Babul			
T22	Annona squamosa	Sitaphala			
T23	Saraca asoca	Ashoka			
SCHEDUL	ES OF LARGE SHRUB				
S1	Thevetia peruviana	Kaniar			
S2	Ervatamia divaricata	Tagar			
S3	Hibiscus chinensis	Mandar			
S4	Nerium oleander	Karabik			
S5	Murraya exotica	Kamini			
S6	Cassia fistula	Sunari			
S7	Spathodea campanulata	Mysore green			
S8	Cestrum nocturnum	Hena			
S9	Bouhaminvilla spectalillis	Kagaj phool			



### Table No. 2: Big Tree species selected for Greenbelt

SL.No.	Common name	Scientific name
1	Arjun, Arjuna	Terminaliaarjuna
2	Ashwatha	Ficusreligiosa
3	Akashmoni	Acacia moniliformis
4	Aam	Mangiferaindica
5	Bot	Ficusbenghalensis
6	Chatim	Alstoniascholaris
7	Debdaru	Polyalthialongifolia
8	Ghoranim	Meliaazedarch
9	Jhaun	Casuarinaequisetifolia
10	Jarul	Lagerstroemia speciosa
11	Karanj	Derris indica
12	Krishnachura	Caesalpiniapulcherrima
13	Nim	Azadirachtaindica
14	Pakur	Ficusinfectoria
15	Radhachura	Delonixregia

# 6.4 Preparation for Seedlings:

### 6.4.1 To undertake plantation on site, following steps will be taken:

- i. Obtaining Healthy seedlings from nursery
- ii. Preparation of pits and preparing them for transfer of seedlings
- iii. Take care of seedlings after plantation in pits

# 6.4.2 Pit and Soil Preparation:

i. The pit size has been recommended as 45 cm x 45 cm x 45 cm for trees and



- ii. 30 cm x 30 cm x 30 cm for shrubs.
- iii. The spacing for trees is proposed 2 m while 1 m for shrubs plantation.
- iv. The pits should be watered prior to plantation of seedlings.

#### 6.4.3 Post Care Facilities:

- i. The growing plants are cared at least for the first 3 years under favourable condition of climate and irrigation.
- ii. For healthy and vigorous growth adequate nutrient will be supplied.
- iii. To avoid water stress condition regular watering will be done.

#### 6.4.4 Recommended plants for different environmental concerns.

#### Plantation for arresting dust

Trees particularly having compact branching closely arranged leaves of simple elliptical andhairy structure, shiny or waxy leaves and hairy twigs are efficient filters of dust. The followingspecies are suggested to arrest the dust

- Alstonia Scholaris
- Bauhinia purpurea
- Cassia siamea
- Peltoferrum ferrugineum
- Butea monosperma
- > Tamarindus indica
- > Azadirachta indica

#### Plantation to absorb SO2 emissions

The following plants are suggested for plantation to absorb SO2 in the air.

- > Azadirachta indica
- Albizia lebbeck
- Alstonia scholaris



- Lagerstroemia flosregineae
- Melia azedarach
- Minusops elangi
- Poloyalthia longifloia

#### Plantation to reduce noise pollution

Trees having thick and flushy leaves with petioles are suitable. Heavier branches and trunksof trees also deflect the sound waves. The following plant species are suggested to reduce noise pollution.

- Alstonia scholaris
- Azadirachta indica
- Melia monosperma
- Grevillea peridifolia
- Tamarindus indica
- Greavillea robusta

#### Plantation along the roads (Avenue plantation)

- Alstonia scholaris
- Cassia fistula
- Bauhinia purpurea
- Mimusops elangi
- Pongamia pinnata
- Polyalthia longifolia
- Poluferrum ferrugineum
- Lagerstroemia flosreginea
- Cassia siame



# 7.2 Carbon Sequestration

Green belt area in an industry has positive impact on local climate, this aspect is often disregarded because their ecosystem services are not well understood or quantified. Trees actas sinks for carbon dioxide by fixing carbon during photosynthesis and storing carbon as biomass (Carbon sequestration). The net long-term carbon dioxide source/sink dynamics of green belt area change through time as trees grow, get pruned, die and decay. Trees in green belt areas sequester and store carbon as they grow. Thus, green belt influence local climate, carbon cycles, energy use and climate change.

#### **Carbon Sequestration by trees**

Carbon Sequestration is basically withholding carbon in some safe form (biomass) other than the gaseous form as long as possible. This process efficiently moves the carbon into a reservoir preventing it from circulating in a cyclic manner (Carbon cycle). The carbonabsorbing potential is high in the initial stages of plant growth, when growth rate is high and it declines towards the plants maturity. Carbon sequestration potential of the green belt was estimated using methods prescribed by Ravindranath and Ostwald (2008) in CarbonInventory Methods: Handbook for Greenhouse Gas Inventory, Carbon Mitigation and Roundwood Production Projects.

#### Litter and Deadwood Biomass Carbon

Dead organic matter consists of deadwood and litter. Inclusion of dead organic matter pool makes the estimated changes in total carbon stock more accurate. Most of the biomass that are not harvested or burnt is added to the deadwood, litter and soil carbon pools. Litter and deadwood organic matter may account for about 10% of total carbon stocks in forests and tree plantations. The following equation is used to calculate litter and deadwood biomass carbon.


### Soil Carbon

Soil is the largest reservoirs of carbon. Flow of carbon between soil and the atmosphere is a continuous process, highly influenced by land use and management. Soil organic carbon is also often referred to as 'soil organic matter'. Soil organic carbon is defined as 'the organic carbon in mineral soils to a specific depth chosen, also including live and dead fine roots within the soil'. Soil organic carbon is a critical carbon pool for majority of land-use categories and afforestation, reforestation, land reclamation, grassland management, shelterbelt and agro- forestry projects. Stocks of organic carbon in soil vary with land-use systems. The share of soil organic carbon in the total carbon stock may vary from 50% to 84% in the forests. Carbon stocks in soils are fairly stable under undisturbed conditions. The concentration of organic carbon in soil is the highest in topsoil.

Organic matter plays a vital role in the productivity and conditioning of soils. It serves as a source of food for soil bacteria and fungi which are responsible for converting complex organic materials into simple substances readily used by the plants. The intermediate products of decomposition of fresh organic matter help to improve the physical conditions of the soil. The addition of organic matter also improves the working quality or of the soil. In association with clay and calcium, it helps to form the aggregates of soil particles to produce the crumb structure. It also serves as mulch.

**Soil Organic Carbon:** The organic matter present in the soil is digested with excess of potassium dichromate and sulphuric acid and residual unutilized dichromate is the nitrated with ferrous sulphate, after determination of organic carbon.

1 gram of sieved soil was transferred into a 500mL conical flask and set aside for digestion for 30 minutes, with a mixture of 10mL of 1N K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> solution and 20mL conc. H<sub>2</sub>SO<sub>4</sub>. 150mL of distilled water and 5 drops of Di-phenyl amine were added. The mixture was titrated against 0.5N FAS solution to the end point. A reagent blank was carried out in asimilar manner without soil.



### 7.3 Plan for Carbon Sequestration

Total Amount of Green House Gas generated from the Proposed Project can be offsetted or sequestrated by scientific forestation /afforestation/reforestation which can be done outside the plant or at any geographical location as per feasibility and suitability like HimachalPradesh, Arunachal Pradesh and even Amazon Forest and this green belt will offset the GreenHouse Gases which will emit from the Proposed Industrial unit during operational phase.

The carbon stock change is the sum of changes in stocks of all the carbon pools in a given areaover a period of time, which could be averaged to annual stock changes. The carbon pools identified in the green belt area are above- ground biomass, below-ground biomass, Litter and Deadwood biomass and soil organic carbon in the form of Pit method plantation, Miyawaki method plantation and future green belt development area.

Often overlooked in favour of larger carbon-capturing trees, shrubs and hedgerows can also play an important role in increasing the carbon capture capabilities of a piece of land. As permanent, perennial features of an agricultural landscape, or a garden, shrubs and hedges arevital to carbon conscious land management. The wider and spread hedge, the more carbon it will generally sequester.

Although their size is small but when we consider about the number of these small plants theyhave potential and significant role in carbon storage as they do photosynthesis where plants use sunlight, water, and carbon dioxide to produce oxygen and energy in the form of sugar; It takes six molecules of  $CO_2$  to make every molecule of glucose, and this basic building block is then used for energy and to make the structure of the plant itself. This biochemical reaction is the same for all plants, hence they are storing Carbon.

Plantation activities will be carried out while keeping environmental aspects as top priority,

- Plantation need to be done in a scientific manner and within defined area,
- Plantation must not be done with single species as planting of single species have several negative aspects such as:
  - Loss of soil fertility



- Loss to ecosystem
- Plant will keep consuming similar nutrients and minerals from the soil and further lead to loss of soil quality
- If a microbial, fungal or other infection occur in that ecosystem then it will destroy all the plant
- Plantation will be done in diversified manner as compare to monoculture to make it more efficient and lead advanced type or scientific forest
- Plantation will not include only taller and longer plants, but also multiple type of small vegetation, hedge, ground vegetation, fencing plants etc
- Survival Factors and Annual Carbon Sequestration Rates for Common Trees shall be analysed first before selection of species and plantation in that particular and specificgeographical location.
- Plantation will be done with species having more basal area, fast growth rate, hard woodand strong soil holding capacity

The Detail of the Sequestration plan is as below:



SI. #	Speices Chara	cteristic		Tentative Life Span	Tree Age	Number of Age	Survival Factor	No. Surviving	Total Carbon	Carbon	Total CO2	Total CO2	Total CO2
	Name	Tree Type (H	Growth Rate		(sapling age)	'Zero' Trees		Trees	Total Carbon	Sequestration	emission	emission	emission
		or C)	(S/M/F)		at the time of	Planted			Sequestered	Conversion	Sequestered	Sequestered in	Sequestered in
					Plantation				(in lbs)	Rate to CO2	(in lbs of CO2)	kg. (@ 1 lbs =	kg. (@ 1 kg. =
												0.454 kg)	0.001 MT)
1	Jamun (Syzygium cumini)	С	F	More than 25 years	1	10000	0.798	7980	3848754	3.67	14124927	6412717	6413
2	Mango (Mangifera indica)	Н	F	More than 25 years	0	25000	0.873	21825	14443785	3.67	53008691	24065946	24066
3	Debdaru (Polyalthialongifolia)	Η	F	More than 25 years	0	11000	0.873	9603	6362947.8	3.67	23352018	10601816	10602
4	Arjun (Terminaliaarjuna)	С	F	More than 25 years	1	11000	0.798	8778	4233629.4	3.67	15537420	7053989	7054
5	Ashoka (Saraca asoca)	Н	F	More than 25 years	0	13000	0.873	11349	7519847.4	3.67	27597840	12529419	12529
6	Bot (Ficusbenghalensis)	С	F	More than 25 years	1	16000	0.798	12768	6158006.4	3.67	22599883	10260347	10260
7	Karanj (Derris indica)	Н	F	More than 25 years	0	11000	0.873	9603	6362947.8	3.67	23352018	10601816	10602
8	Hena (Cestrum nocturnum)	С	F	More than 25 years	1	10000	0.798	7980	3848754	3.67	14124927	6412717	6413
9	Sunari (Cassia fistula)	Н	F	More than 25 years	0	11000	0.873	9603	6362947.8	3.67	23352018	10601816	10602
Source of	this chart: Method for Calculating Carl	bon Sequestratio	on by Trees in Ur	ban and Suburban Se	ettings by US De	partment of Energ	ıy, April 1998						60664
-													



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Sequestrat	ion in Year 1	Sequestrat	ion in Year 2	Sequestrat	ion in Year 3	Sequestrat	ion in Year 4	Sequestrat	ion in Year 5	Sequestrati	on in Year 6
Annual Carbon Sequestration Rate (lbs/tree)	Carbon Sequestere d(in lbs)	Annual Carbon Sequestration Rate (Ibs/tree)	Sequestered (inlbs)	Annual Carbon Sequestration Rate (Ibs/tree)	Carbon Sequestere d(in lbs)	Annual Carbon Sequestration Rate (Ibs/tree)	Carbon Sequestere d(in lbs)	Annual Carbon Sequestratio nRate (Ibs/tree)	Carbon Sequestere d(in lbs)	Annual Carbon Sequestration Rate (lbs/tree)	Carbon Sequestere d(in lbs)
2.2	17556	3.1	24738	4.1	32718	5.2	41496	6.4	51072	7.6	60648
4	87300	5.4	117855	6.9	150592.5	8.5	185512.5	10.5	229162.5	11.8	257535
4	38412	5.4	51856.2	7.6	72982.8	8.1	77784.3	10.1	96990.3	11.8	113315.4
2.2	19311.6	3.1	27211.8	4.1	35989.8	5.2	45645.6	6.4	56179.2	7.6	66712.8
4	45396	5.4	61284.6	7.6	86252.4	8.1	91926.9	10.1	114624.9	11.8	133918.2
2.2	28089.6	3.1	39580.8	4.1	52348.8	5.2	66393.6	6.4	81715.2	7.6	97036.8
4	38412	5.4	51856.2	7.6	72982.8	8.1	77784.3	10.1	96990.3	11.8	113315.4
2.2	17556	3.1	24738	4.1	32718	5.2	41496	6.4	51072	7.6	60648
4	38412	5.4	51856.2	7.6	72982.8	8.1	77784.3	10.1	96990.3	11.8	113315.4

Sequestratio	on in Year 7	Sequestration	on in Year 8	Sequestratio	on in Year 9	Sequestratio	on in Year 10	Sequestratio	n in Year 11	Sequestratio	n in Year 12
Annual	Carbon	Annual	Carbon	Annual	Carbon	Annual	Carbon	Annual	Carbon	Annual	Carbon
Carbon	Sequestered	Carbon	Sequestered	Carbon	Sequestered	Carbon	Sequestered	Carbon	Sequestered	Carbon	Sequestered
Sequestratio	(in lbs)	Sequestratio	(in lbs)	Sequestratio	(in lbs)	Sequestratio	(in lbs)	Sequestratio	(in lbs)	Sequestratio	(in lbs)
n Rate		n Rate		n Rate		n Rate		n Rate		n Rate	
(lbs/tree)		(lbs/tree)		(lbs/tree)		(lbs/tree)		(lbs/tree)		(lbs/tree)	
8.9	71022	10.2	81396	11.7	93366	13.2	105336	14.7	117306	16.3	130074
13.6	296820	15.5	338287.5	17.4	379755	19.3	421222.5	21.3	464872.5	23.3	508522.5
13.6	130600.8	15.5	148846.5	17.4	167092.2	19.3	185337.9	21.3	204543.9	23.3	223749.9
8.9	78124.2	10.2	89535.6	11.7	102702.6	13.2	115869.6	14.7	129036.6	16.3	143081.4
13.6	154346.4	15.5	175909.5	17.4	197472.6	19.3	219035.7	21.3	241733.7	23.3	264431.7
8.9	113635.2	10.2	130233.6	11.7	149385.6	13.2	168537.6	14.7	187689.6	16.3	208118.4
13.6	130600.8	15.5	148846.5	17.4	167092.2	19.3	185337.9	21.3	204543.9	23.3	223749.9
8.9	71022	10.2	81396	11.7	93366	13.2	105336	14.7	117306	16.3	130074
13.6	130600.8	15.5	148846.5	17.4	167092.2	19.3	185337.9	21.3	204543.9	23.3	223749.9



Sequestration	n in Year 13	Sequestratio	n in Year 14	Sequestratio	n in Year 15	Sequestratio	n in Year 16	Sequestratio	n in Year 17	Sequestratio	n in Year 18
Annual Carbon Sequestration	Carbon Seguestere	Annual Carbon Sequestration	Carbon Sequestere	Annual Carbon Sequestration	Carbon Sequestere	Annual Carbon Sequestration	Carbon Sequestere	Annual Carbon Sequestration	Carbon Seguestere	Annual Carbon Sequestration	Carbon Sequestere
Rate (lbs/tree)	d(in lbs)	Rate (lbs/tree)	•	Rate (lbs/tree)	d(in lbs)						
17.9	142842	19.6	156408	21.4	170772	23.2	185136	25	199500	26.9	214662
24.4	532530	27.5	600187.5	29.7	648202.5	31.9	696217.5	34.1	744232.5	36.3	792247.5
24.4	234313.2	27.5	264082.5	29.7	285209.1	31.9	306335.7	34.1	327462.3	36.3	348588.9
17.9	157126.2	19.6	172048.8	21.4	187849.2	23.2	203649.6	25	219450	26.9	236128.2
24.4	276915.6	27.5	312097.5	29.7	337065.3	31.9	362033.1	34.1	387000.9	36.3	411968.7
17.9	228547.2	19.6	250252.8	21.4	273235.2	23.2	296217.6	25	319200	26.9	343459.2
24.4	234313.2	27.5	264082.5	29.7	285209.1	31.9	306335.7	34.1	327462.3	36.3	348588.9
17.9	142842	19.6	156408	21.4	170772	23.2	185136	25	199500	26.9	214662
24.4	234313.2	27.5	264082.5	29.7	285209.1	31.9	306335.7	34.1	327462.3	36.3	348588.9



### **Carbon Sequestration Budgeting and Social Returns from the Green Belt Development**

SI. #	Items	Figure	Units		Total Social
1	Number of jamun trees	10000	in numbers	Considering a price increase of 5% pa over base year	Returns
2	Jamun trees per acre	85	in numbers		
3	Area of land required	117.6470588	Acre		
4	Income per acre	180,000	Rs./acre		
5	Income from total area	21176470.59	Rs.		
		2.117647059	in Crores of Rs.		101.0691504
6	Investment	0.1	in Crores of Rs.		
7	Wealth Created for the Community	101	in Crores of Rs.		
	(Social Returns) during the				
	<b>Sequestration Period less Investment</b>				
	Sour	ce of this calcu	lation: https://www.ag	grifarming.in/jamun-cultivation-income-alla-neredu-project-	
	report#:~:text=Generally%2	2C%20if%20we	%20follow%20spacing%	620of%207%20%C3%97,be%20done%20with%20the%20help%20of%208%20labors.	

SI. #	Items	Figure	Units		Year 1	Year 2	Year 3	Year 4
1	Number of jamun trees	10000	in numbers	Considering a price				
				increase of 5% pa				
				over base year				
2	Jamun trees per acre	85	in numbers					
3	Area of land required	117.6470588	Acre					
4	Income per acre	180,000	Rs./acre					
5	Income from total area	21176470.59	Rs.					
		2.117647059	in Crores of Rs.		2.117647059	2.223529412	2.334705882	2.451441176



Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
2.574013235	2.702713897	2.837849592	2.979742072	3.128729175	3.285165634	3.449423916	3.621895111	3.802989867

Year 23	Year 24	Year 25	Total Social Returns
6.19466976	6.504403248	6.82962341	101.0691504



### Green hydrogen- based steel production as an option to reduce Carbon Emission

Although hydrogen is one of the most abundant elements on earth, in its pure form it is rare. Extracting hydrogen from its compounds requires a lot of energy. Although these energy sources can be diverse, the most popular hydrogen production method is carbon dioxide intensive. Most of the world's hydrogen production consists of "grey hydrogen," produced via steam methane reforming (SMR), which forms both hydrogen and carbon dioxide. In contrast, the term "blue hydrogen" is reserved for hydrogen production that involves carbon capture and usage or the storage of emitted carbon dioxide. Additionally, the electricity- intensive electrolysis of water is yet another process for producing hydrogen and is the only carbonneutral technique (provided that renewable energy sources can be used); this is known as "green hydrogen."

There are generally two ways to use (green) hydrogen in steel production. First, it can be used as an alternative injection material to PCI, to improve the performance of conventional blast furnaces. Although the use of PCI is common, the first pilot plants using hydrogen injection have recently been set up to assess decarbonization potential. However, while the injection of (green) hydrogen into blast furnaces can reduce carbon emissions by up to 20 percent, this does not offer carbon-neutral steel production because regular coking coal is still a necessary reductant agent in the blast furnace.

Second, hydrogen can be used as an alternative reductant to produce DRI that can be further processed into steel using an EAF. This DRI/EAF route is a proven production process that is currently applied using natural gas as a reductant, for example by players in the Middle East with access to a cheap natural gas supply. However, the direct reduction process can also be performed with hydrogen. Based on the use of green hydrogen as well as renewable electricity from wind, solar, or water, a DRI/EAF setup enables nearly carbon-neutral steel production.



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H2 price development, Germany, EUR/kg H2



Sensitivity analysis of cash cost, excluding depreciation (for H<sub>2</sub> and CO<sub>2</sub> only)



Cash cost conventional < cash cost H<sub>2</sub>-based



SOURCE: McKinsey hydrogen-based steel model



## **Appendix II**

## **Emission factors used:**

Category	Scope 1,2 & 3	
Category	source	Comments
		Calculated based on the weight data with using each EF
		numbers
		https://www.climatiq.io/explorer?search
	Stationary	https://www.gov.uk/government/publications/greenhouse-
	combustion	gas-reporting-conversion-factors-2019
S1	Fugitive	
	emissions	
	from air-	Calculated based on the spend data
	conditioning,	https://www.climatiq.io/explorer?search
	STP, & Fire	https://www.gov.uk/government/publications/greenhouse-
	Extinguisher.	gas-reporting-conversion-factors-2019
S2	Purchased	Grid Average/Location Based
52	electricity	CEA data
		Based on business travel data (car, train, flights)
		https://www.epa.gov/sites/production/files/2020-
		04/documents/ghg-emission-factors-hub.pdf
		https://ghgprotocol.org/calculation-tools.
S3		UK Government GHG Conversion Factors for Company
35	Business	Reporting - 2021
	travel	
	Material Use-	https://www.gov.uk/government/publications/greenhouse-
	Quantity	gas-reporting-conversion-factors-2019
	Method	



	Using land & sea distances for volumes of Goods sold
	https://ghgprotocol.org/calculation-tools.
Employee	UK Government GHG Conversion Factors for Company
commuting	<u>Reporting - 2021</u>
	https://www.epa.gov/sites/production/files/2020-
	04/documents/ghg-emission-factors-hub.pdf
	https://www.gov.uk/government/publications/greenhouse-
Hotel Stay	gas-reporting-conversion-factors-2019
	https://www.gov.uk/government/publications/greenhouse-
Employee	gas-reporting-conversion-factors-2019
commuting	

Applus<sup>®</sup> Report on GHG Inventory, Decarbonization program, company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies for M/s. Neo Metaliks Ltd

## 8.0 References:

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- Karthikeyan S. 2017. Discover Avenue tress A Pocket Guide. EcoEdu Consultants
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  - o 266.
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- Walkley, A. and I. A. Black. 1934. Method for determining soil organic matter and aproposed modification of the chromic acid titration method. Soil Sci. 37: 29

**Annexure-XVII** 

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## NEO METALIKS LIMITED, DURGAPUR INTEGRATED MANAGEMENT SYSTEM ISO14001:2015, ISO45001:2018 EMERGENCY PREPAREDNESS & RESPONSE PLAN

DOC. NO.: WK. ST NO:11 ISSUE NO.: 01 REV. NO. - 00 EFE. DT: 20.07.21

# <u>EMERGENCY PREPAREDNESS &</u> <u>RESPONSE PLAN</u> <u>APPLICABLE TO</u>

# NEO METALIKS LIMITED

# **DURGAPUR**

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Doc. Status	Prepared by	Reviewed by	Approved by	Page
Doc. Status	EHS Coordinator	Head of Safety	Plant Head	



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### NEO METALIKS LIMITED, DURGAPUR INTEGRATED MANAGEMENT SYSTEM ISO14001:2015, ISO45001:2018 EMERGENCY PREPAREDNESS & RESPONSE PLAN

DOC. NO.: WK. ST NO:11 ISSUE NO.: 01 REV. NO. - 00 EFE. DT: 20.07.21

The Emergency Preparedness & Response Plan (EPRP) is a controlled copy and detailing all the contents enacted in the Table of contents. This plan is an effort to control the emergency situations effectively in Operational area of Sinter, Mini Blast furnace and Captive Power. Success of this EPRP depends upon the co-operation of the management, employee, neighboring industries and the local administration.

This Emergency Preparedness & Response Plan explains the code of conduct of all personnel in the plant premises along with the actions to be carried out in case of an Emergency. This plan gives the guidelines for employees, contractors, transporters, etc. It not only defines responsibilities but also informs about the prompt rescue operations, evacuations, rehabilitation, co-ordination and communication.

Prepared by

Manager- SHE

Approved by

Plant Head

	1 Jul 10 /00	15 to sull a	11ca-	+
Doc. Status	Prepared by	Reviewed by	Approved by	Page  2
Doc. Status	EHS Coordinator	Head of Safety	Plant Head	

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## NEO METALIKS LIMITED, DURGAPUR INTEGRATED MANAGEMENT SYSTEM ISO14001:2015, ISO45001:2018 EMERGENCY PREPAREDNESS & RESPONSE PLAN

DOC, NO.: WK. ST NO:11 ISSUE NO.: 01 REV. NO. + 00 EFE. DT: 20.07.21

NO	TABLE OF CONTENTS	PAGE NOS	
1	Plant Introduction & Location		
2	Climate		
3	Introduction on Emergency Preparedness & Response Plan (EPRP)		
4	efinition		
5	Basic Objectives Of Emergency Preparedness & Response Plan (EPRP)	tives Of Emergency Preparedness & Response Plan (EPRP)	
6	Essential Elements Of The Emergency Preparedness & Response Plan (EPRP)		
7	Equipments, Installations, Arrangements And Communication Facilities		
8	Emergencies		
a.	Fire		
b.	Explosion	-	
c.	Release of Toxic Gases		
d.	Earthquake		
e.	Hurricane		
f.	Riots & War	-10 - 1. P.	
g.	Bomb Threats		
h	Blackouts		
1	First Aid & other Medical Emergencies		
9	Epidemic Disease (COVID 19)		
9	Measures taken in Anticipation		
10	Preventive Measures To Avoid Accidents And Emergency Situations	- Martin - 197	
11	Response Plans from Fire	-	
a.	Non Electric Fire		
<b>b</b> ,	Fire in Generator		
c.	Fire in Panel Board		
12	Medical & Other Resources		
13	List Of Outside Emergency Services		
15	List Of Fire Fighting Trained Personnel In The Factory		
16	List Of Fire Extinguishers Positioned In Factory		
17	List Of Fire Hydrant System Positioned In Factory		
18	List Of First Aid Trained Personnel In The Factory	-	
19	Emergency Responsibilities		
20	Emergency Control Centre (ECC)		
21	Emergency Controller (Management Representative)		
22	Emergency Coordinator (Health & Safety Representative)	_	
23	Works Main Controller		
24	Works Incident Controller	-	
25	Fire & Safety Coordinator		
26	Medical Coordinator		
27	Security Coordinator		

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D 01.1	Prepared by	Reviewed by	Approved by	Pagel
Doc. Status	EHS Coordinator *	Head of Safety	Plant Head	
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## NEO METALIKS LIMITED, DURGAPUR INTEGRATED MANAGEMENT SYSTEM ISO14001:2015, ISO45001:2018 EMERGENCY PREPAREDNESS & RESPONSE PLAN

DOC, NO.: WK, ST NO:11 ISSUE NO.: 01 REV. NO. - 00 EFE, DT: 20.07.21

S.No	TABLE OF CONTENTS	PAGE NOS
28	Maintenance Coordinator	28
29	Communication/ Public Relations Coordinator (Administration)	29
30	List Of Important Personnel & Their Contact Numbers Present In The Plant	30
31	General Responsibilities Of all the Employees during an emergency	31
38	List Of Assembly Points	38
39	Emergency Response Team	39

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Doc. Status	Prepared/by // 2/	Reviewed by	Approved by	Page [4
o o or i o millio	EHS Coordinator	Head of Safety	Plant Head	

Annexure- XVIII



# **ENVIRONMENTAL POLICY**

Neo Metaliks recognises and vouches to balance its business activities in accordance with environmental conservation. Rigorously adhering to environmental regulations in all facets of our business operations, we work to maintain and enhance our level of environmental management. We aim to achieve the balance between our business activities and environmental conservation by taking the initiative for environmental conservation programmes, the protection of the biodiversity in the vicinity of our operation, the sustainable use of natural resources in our operational locations and the reduction of waste. Neo Metaliks simultaneously educates all its workers, suppliers, and the neighbourhood to promote environmental awareness and establish a more ecofriendly society.

1<sup>st</sup> April 2023

Director



# MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 10000478589 -MSC -UKAS -IND Initial certification date: 10 November 2021 Valid: 10 November 2021

700016, West Bengal, India

- 09 November 2024

This is to certify that the management system of

# **Neo Metaliks Limited**

HO: 71, Park Street, 6th.Floor, 6F North Block, Kolkata

and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Environmental Management System standard:

## ISO 14001:2015

This certificate is valid for the following scope: Manufacture of pig iron through mini blast furnace

Place and date: Chennai, 10 November 2021



For the issuing office: DNV - Business Assurance ROMA, No. 10, GST Road, Alandur,Chennai -600 016, India

Sivadasan Madiyath Management Representative



Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

ACCREDITED UNIT: www.dnv.co.uk DNV Business Assurance UK Limited,

4th Floor, Vivo Building, 30 Stamford Street, London, SE1 9LQ, United Kingdom



**Appendix to Certificate** 

### **Neo Metaliks Limited**

Locations included in the certification are as follows:

Site Name	Site Address	Site Scope
Neo Metaliks Limited	Site: P.O.: Gopalpur, Via: Durgapur, Burdwan - 713212, West Bengal, India	Manufacture of pig iron through mini blast furnace
Neo Metaliks Limited	HO: 71, Park Street, 6th.Floor, 6F North Block, Kolkata - 700016, West Bengal, India	Providing Marketing, Purchase and Human Resource services.



Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

ACCREDITED UNIT: DNV Business Assurance UK Limited, 4th Floor, Vivo Building, 30 Stamford Street, London, SE1 9LQ, United Kingdom www.dnv.co.uk



# MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 10000478590 -MSC -UKAS -IND Initial certification date: 15 November 2021 Valid: 15 November 2021

700016, West Bengal, India

- 14 November 2024

This is to certify that the management system of

# **Neo Metaliks Limited**

HO: 71, Park Street, 6th.Floor, 6F North Block, Kolkata

and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Occupational Health and Safety Management System standard:

## ISO 45001:2018

This certificate is valid for the following scope: Manufacture of pig iron through mini blast furnace

Place and date: London, 15 November 2021



For the issuing office: DNV - Business Assurance 4th Floor, Vivo Building, 30 Stamford Street, London, SE1 9LQ, United Kingdom

Erie Koek Management Representative



Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

ACCREDITED UNIT: DNV Business Assurance UK Limited, www.dnv.co.uk

4th Floor, Vivo Building, 30 Stamford Street, London, SE1 9LQ, United Kingdom

- TEL: +44(0) 203 816 4000



Place and date: London, 15 November 2021

Appendix to Certificate

### **Neo Metaliks Limited**

Locations included in the certification are as follows:

Site Name	Site Address	Site Scope
Neo Metaliks Limited	Site: P.O.: Gopalpur, Via: Durgapur, Burdwan - 713212, West Bengal, India	Manufacture of pig iron through mini blast furnace
Neo Metaliks Limited	HO: 71, Park Street, 6th.Floor, 6F North Block, Kolkata - 700016, West Bengal, India	Providing marketing, purchase and human resource services



ACCREDITED UNIT: DNV Business Assurance UK Limited, 4th Floor, Vivo Building, 30 Stamford Street, London, SE1 9LQ, United Kingdom www.dnv.co.uk

# THE TIMES OF INDIA- Dt. 08.06.2022



# EI SAMAY (Bengali-Vernacular Daily) Dt. 08.06.2022

#### GIRBER PUBLIC NOTICE ALC: NO. ENVIRONMENT 経営 pont CLEARANCE to is iteraby informula 51. N that the Ministry of invitionitieur, I orast. and Climate Charme. Inditty Pary assault 12. July 1 Pitaware, Jor BogD front Aliguni, New Dethi-110003, 900 Bala 23850 necordict Car D Divis Lasuronmental join Clearance for the proposed Expansion and Upgradation of r man Pig Iron Manufacturing Piorti 14 21 10 10 a 0.4 MTRA C. TOTAL Capacity and Inclusion of Steel ar Gathas and All Melting Shop in the while, the earning prentises of tur 1417 54/s Neo Metaliks Limited at. in 14 and ingulgur.Durgapur.Pa 11. 200 10.0 SCHINE. Burdhaman, West Bengul, vide letterheard as Identification No--Durgana EC22A000WB16704 OFENO. H 1101.1779/2007-E EA H(1)] under the provision of LLA (Chinese) Pdoivifilization dates. 14th September OF ALL Dirk b 2006. The copy of Drings at Fraviconment Loss Net. Clearance letter is available on websilte 1/15/06/ IIF MOLE&CC athic (PRAIVESID icipat P. E http://moaf.uig.in/ Pawner http://environmentele ILL CHAR arance mic.in Dans Nootam THE ESTATE OFFICER TILE SILE

Annexure- XIX





Park Plaza, 71 Park Street, 6F. North Block, Kolkata - 700.016 Tel. + 91.33.4050.0059, Fax: + 91.33.2217.7317, E-mail: Info@ncometaliks.com Website: www.nsometaliks.com, CIN: U27109WB2003PLC097231

Date:06-06-2022

To The District Magistrate Paschim Bardhhaman West Bengal

Sub: Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: 1A

)11011/779/2007-IA.II(I), Dated-01/06/2022, as per EC, Miscellaneous Condition No. X(ii).

Respected Sir,

We, Neo Metaliks Limited are the leading Pig Iron manufacturer having its manufacturing units 215M<sup>3</sup> Blast Furnace, Sinter plant and Captive Power Plant at P.O + Vill- Gopalpur, Durgapur, Bamunara Industrial area. We would like to inform you that, M/s Neo Metaliks Ltd, Gopalpur, Durgapur-12, District - Paschim Bardhhaman, West Bengal has been granted Environment Clearance (EC) vide letter no. F. No. IA-J-11011/779/2007-IA. II(I), Dated - 01/06/2022 for expansion and upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA capacity and inclusion of steel melting shop from Ministry of Environment, Forest & Climate Change (MoEF&CC) under the provision EIA notification 2006.

Please find enclosed the copy of EC (Environment Clearance) granted to M/s Neo Metaliks Ltd., which required to be displayed in your good office Notice Board for 30 days from the date of receipt as per EC, miscellaneous condition no. X(ii).

Submitted for your kind perusal.

Thanking you,

ours faithful

(Sanjay Kumar Jita) DGM Commercial & Factory Manager Mobile No:8420009968



Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: <u>IA-J11011/779/2007-IA. II(I), Dated-01/06/2022.</u>





Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 700 016 Tel.: + 91 33 4050 4050, Fax: + 91 33 2217 7317, E-mail: info@necmetaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PLC097231

Date:06-06-2022

To The District Magistrate Paschim Bardhhaman West Bengal

Sub: Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA-

J11011/779/2007-IA II(I), Dated-01/05/2022, as per EC, Miscellaneous Condition No. X(ii).

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Submitted for your kind perusal.

Thanking you,

Yours faithfull

(Sanjay Kumar Jha) DGM Commercial & Factory Manager Mobile No:8420009968



Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA-J11011/779/2007-1A. II(I), Dated-01/06/2022.



Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 700 016 Tel.: + 91 33 4059 4050, Fax: + 91 33 2217 7317, E-mail: Info@ncomstaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PLC097231

Date:06-06-2022

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To Office of Sub-Divisional Magistrate City Centre Durgapur, West Bengal

Sub: <u>Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days</u>. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA- <u>J11011/779/2007-IA.II(I)</u>, <u>Dated-01/06/2022</u>, as per EC, <u>Miscellaneous</u> <u>Condition No.</u> X(ii).

Respected Sir,

We, Neo Metaliks Limited are the leading Pig Iron manufacturer having its manufacturing units 215M<sup>3</sup> Blast Furnace, Sinter plant and Captive Power Plant at P.O + Vill- Gopalpur, Durgapur, Bamunara Industrial area. We would like to inform you that, M/s Neo Metaliks Ltd, Gopalpur, Durgapur-12, District - Paschim Bardhhaman, West Bengal has been granted Environment Clearance (EC) vide letter no. F. No. IA-J-11011/779/2007-IA. II(I), Dated - 01/06/2022 for expansion and upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA capacity and inclusion of steel melting shop from Ministry of Environment, Forest & Climate Change (MoEF&CC) under the provision EIA notification 2006.

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Submitted for your kind perusal.

Thanking you,

Yours\_faithfu

(Sanjay Kumar 348) DGM Commercial & Factory Manager Mobile No:8420009968

Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: <u>IA-J11011/779/2007-IA. II(I)</u>, <u>Dated-01/06/2022</u>.

Factory Address : VB . Gopalpur, P.O. : Gopalpur Via Dorgapur - 12, Dist. : Dordwan, West Bengal, Pox - 713712





Park Plaza, 71 Park Street, 6F. North Block, Kolkata - 700 016 Tel.: + 91 33 4050 4050, Fax: + 91 33 2217 7317, E-mail: Info@neometaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PLC097231

Date:06-06-2022

Sub: Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA- <u>111011/779/2007-IA II(I)</u>, Dated-01/06/2022, as per EC, Miscellaneous Condition No. X(ii).

Respected Sir,

We, Neo Metaliks Limited are the leading Pig Iron manufacturer having its manufacturing units 215M<sup>3</sup> Blast Furnace, Sinter plant and Captive Power Plant at P.O + Vill- Gopalpur, Durgapur, Bamunara Industrial area. We would like to inform you that, M/s Neo Metaliks Ltd, Gopalpur, Durgapur-12, District - Paschim Bardhhaman, West Bengal has been granted Environment Clearance (EC) vide letter no. F. No. IA-J-11011/779/2007-IA. II(I), Dated - 01/06/2022 for expansion and upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA capacity and Inclusion of steel melting shop from Ministry of Environment, Forest & Climate Change (MoEF&CC) under the provision EIA notification 2006.

Please find enclosed the copy of EC (Environment Clearance) granted to M/s Neo Metaliks Ltd., which required to be displayed in your good office Notice Board for 30 days from the date of receipt as per EC, miscellaneous condition no. X(ii).

Submitted for your kind perusal.

Thanking you,

Yours faithfully,

For NEO METALIKS LTP. Gopalpur, Durgapur-12

(Sánjay Kumar Jha) DGM Commercial & Factory Manager Mobile No:8420009958



Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: <u>IA-311011/779/2007-IA, II(I)</u>, <u>Dated-</u> 01/06/2022.





Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 700 016 Tel.: + 91 33 4050 4050, Fax: + 91 33 2217 7317, E-mail: infe@neometaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PLC097231

Date:06-06-2022

To The Prodhan Gopalpur Gram Panchayat P.O. & Vill- Gopalpur District- Paschim Bardhhaman West Bengal

Sub: Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA- <u>J11011/779/2007-IA.II(I)</u>, Dated-01/06/2022, as per EC, Miscellaneous Condition No. X(ii).



Respected Sir,

We, Neo Metaliks Limited are the leading Pig Iron manufacturer having its manufacturing units 215M<sup>3</sup> Blast Furnace, Sinter plant and Captive Power Plant at P.O + Vill- Gopalpur, Durgapur, Bamunara Industrial area. We would like to inform you that, M/s Neo Metaliks Ltd, Gopalpur, Durgapur-12, District - Paschim Bardhhaman, West Bengal has been granted Environment Clearance (EC) vide letter no. F. No. IA-J-11011/779/2007-IA. II(I), Dated - 01/06/2022 for expansion and upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA capacity and inclusion of steel melting shop from Ministry of Environment, Forest & Climate Change (MoEF&CC) under the provision EIA notification 2006.

Please find enclosed the copy of EC (Environment Clearance) granted to M/s Neo Metaliks Ltd., which required to be displayed in your good office Notice Board for 30 days from the date of receipt as per EC, miscellaneous condition no. X(II).

Submitted for your kind perusal.

Thanking you,

Factory Manager For NEO METALIKS LTD. Copalpur, Durgapur-12

(Sanjay Kumar Jha) DGM Commercial & Factory Manager Mobile No:8420009968

Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA-J11011/779/2007-IA, II(I), Dated-

01/06/2022





Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 700 016 TeL: + 91 33 4050 4050, Fax: + 91 33 2217 7317. E-mail: info@ncometaliks.com Website: www.ncometaliks.com, CIN: U27109WB2003PLC097231

Date:06-06-2022

To The Mayor Durgapur Municipal Corporation City Centre, Durgapur West Bengal

Sub: Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA- <u>111011/779/2007-IA.II(I)</u>, <u>Dated-01/05/2022</u>, as per EC. <u>Miscellaneous</u> Condition No. X(ii).

Respected Sir,

We, Neo Metaliks Limited are the leading Pig Iron manufacturer having its manufacturing units 215M<sup>3</sup> Blast Furnace, Sinter plant and Captive Power Plant at P.O + Vill- Gopalpur, Durgapur, Bamunara Industrial area. We would like to inform you that, M/s Neo Metaliks Ltd, Gopalpur, Durgapur-12, District - Paschim Bardhhaman, West Bengal has been granted Environment Clearance (EC) vide letter no. F. No. IA-J-11011/779/2007-IA. II(I), Dated - 01/06/2022 for expansion and upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA capacity and inclusion of steel melting shop from Ministry of Environment, Forest & Climate Change (MoEF&CC) under the provision EIA notification 2006.

Please find enclosed the copy of EC (Environment Clearance) granted to M/s Neo Metaliks Ltd., which required to be displayed in your good office Notice Board for 30 days from the date of receipt as per EC, miscellaneous condition no. X(ii).

Submitted for your kind perusal.

Thanking you,

Yours faithfully,

CI-mdeSmQ 'andpedo.) CIJISMUTIEN OIN 304 Factory Manager JosuwW Kaopaga For NEO METALIKS LTP. Gopalpur, Durgapur-12

(SanJay Kumar Jha) DGM Commercial & Factory Manager Mobile No:8420009968

Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA-111011/779/2007-IA, II(I), Dated-01/06/2022.

Nac

Received Not Verified Durgepur Numic pal Corporation

Factory Address : Vill : Gopalpur, P.O. : Gopalpur Via Durgapur - 12, Dist. : Durdwan, West Bongal, PIN : 713212





Date:06-06-2022

Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 700 016 Tel.: + 91 33 4050 4050, Fax: + 91 33 2217 7317, E-mail: info@neometaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PLC097231

To Office of the ADCP Zonce-I (East) Asansol Durgapur Police Commissionerate Durgapur West Bengal

Sub: Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA- <u>J11011/779/2007-IA.II(I)</u>, Dated-01/06/2022, as per EC, Miscellaneous Condition No. X(ii).

### Respected Sir,

We, Neo Metaliks Limited are the leading Pig Iron manufacturer having its manufacturing units 215M<sup>3</sup> Blast Furnace, Sinter plant and Captive Power Plant at P.O + Vill- Gopalpur, Durgapur, Bamunara Industrial area. We would like to inform you that, M/s Neo Metaliks Ltd, Gopalpur, Durgapur-12, District - Paschim Bardhhaman, West Bengal has been granted Environment Clearance (EC) vide letter no. F. No. IA-J-11011/779/2007-IA. II(I), Dated - 01/06/2022 for expansion and upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA capacity and inclusion of steel melting shop from Ministry of Environment, Forest & Climate Change (MoEF&CC) under the provision EIA notification 2006.

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Submitted for your kind perusal.

Thanking you,

Yours faithfully,

For NEO METALIKS LTP. Gopalpur, Durgapur-12

(Sanjay Kumar Jha) DGM Commercial & Factory Manager Mobile No:8420009968

Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: <u>IA-J11011/779/2007-IA. II(I)</u>, Dated-01/06/2022.







Date:06-06-2022

Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 760 016 Tel. + 91 33 4056 4050, Fax: + 01 33 2217 7317, E-mail: info@neoranialiks.com Website: www.neornetaliks.com, CIN: U27109WB2003PLC097231

To The Chief Executive Officer Asansol Durgapur Development Authority City Centre, Durgapur West Bengal

Sub: Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA- <u>J11011/779/2007-IA.II(I)</u>, Dated-01/06/2022, as per EC, Miscellaneous Condition No. X(ii).

#### Respected Sir,

We, Neo Metaliks Limited are the leading Pig Iron manufacturer having its manufacturing units 215M<sup>3</sup> Blast Furnace, Sinter plant and Captive Power Plant at P.O + Vill- Gopalpur, Durgapur, Bamunara Industrial area. We would like to inform you that, M/s Neo Metaliks Ltd, Gopalpur, Durgapur-12, District - Paschim Bardhhaman, West Bengal has been granted Environment Clearance (EC) vide letter no. F. No. IA-J-11011/779/2007-IA. II(I), Dated - 01/06/2022 for expansion and upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA capacity and inclusion of steel melting shop from Ministry of Environment, Forest & Climate Change (MoEF&CC) under the provision EIA notification 2006.

Please find enclosed the copy of EC (Environment Clearance) granted to M/s Neo Metaliks Ltd., which required to be displayed in your good office Notice Board for 30 days from the date of receipt as per EC, miscellaneous condition no. X(ii).

Submitted for your kind perusal.



Thanking you,

Yours faithfully,

Factory Manager For NEO METALIKS LTP. Gopalpur, Durgapur-12

(Sahjay Kumar Jha) Coopelpur, D DGM Commercial & Factory Manager Mobile No: 8420009968



Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA-J11011/779/2007-IA. II(I), Dated-01/06/2022.

Factory Adverse - Vill. Gepalper, P.O.: Gepalper Via Durgaper - 12. Dist. Durchean. West Bengal, PN -713212







Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 700.016 Tel.: + 91.33 4050 4050, Fix: + 91.33 2217 7317. E-mail: Info@neometaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PL C097231

Trouble. To The Regional Pollution Office West Bengal Pollution Control Board City Centre, Durgapur West Bengal

Date:06-06-2022

Sub: Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA J11011/779/2007-IA.II(I), Dated-01/06/2022, as per EC, Miscellaneous Condition No. X(ii).



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Submitted for your kind perusal.

Thanking you,

Yours, faithfully,

Factory Manager For NEO METALIKS LTD. Gopalpur, Dacgapur-12

(Sanjay Kumar Jha) DGM Commercial & Factory Manager Mobile No:8420009968

Enclosure: Copy of Environment Clearance (EC) accorded from Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: <u>IA-J11011/779/2007-IA</u>, <u>II(I)</u>, <u>Dated-</u>01/06/2022,





Park Plaza, 71 Park Street, 6F, North Block, Kolkata - 700 016 Tel.: + 91 33 4050 4050, Fax: + 91 33 2217 7317, E-mail: info@neometaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PLC097231

Date:06-06-2022

To The I/C Kanksa Kanksa Police Station District- Paschim Bardhhaman West Bengal

Sub: <u>Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days.</u> Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA- <u>111011/779/2007-IA.II(I)</u>, <u>Dated-01/06/2022</u>, as per EC. <u>Miscellaneous</u> Condition No. X(ii).

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(Sanjay Kumar Jha) DGM Commercial & Factory Manager Mobile No:8420009968

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Park Plaza, 71 Park Street, 6F, North Block, Kelkata - 700 018 Tel.: + 91 33 4050 4050, Fax: + 91 33 2217 7317, E-mail: Info@neometaliks.com Website: www.neometaliks.com, CIN: U27109WB2003PLC097231

Date:06-06-2022

To

Office of Police Commissioner Asansol Durgapur Police Commissionerate EVELYN LODGE, Asansol West Bengal

Sub: <u>Display of Environment Clearance (EC) of Neo Metaliks Ltd for 30 days</u>. Ref: Govt of India, Ministry of Environment, Forest & Climate Change (MoEF&CC), vide F. No: IA- <u>J11011/779/2007-IA.II(I), Dated-01/06/2022, as per EC, Miscellaneous</u> Condition No. X(ii),



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Factory Address : Vill ; Gopalpur, P.O. ; Gopalpur Via Durgapur - 12, Dist. : Burdwan, West Bengal, PIN ; 713212