### ENVIRONMENTAL CLEARANCE COMPLIANCE

### (APRIL - 2019 TO SEPTEMBER - 2019)

### NEO METALIKS LTD.

[F. No. J - 11011/779/2007-IA II (I), DATED 04.11.2008]

#### Environmental Clearance compliance report for the period from April – 2019 to September - 2019 for M/s Neo Metaliks Ltd. Durgapur vide EC. No – F. No. J - 11011/779/2007-IA II (I), Dated 04.11.2008

SL	SPECIFIC CONDITION	COMPLIANCE STATUS
A(i)	Efforts shall be made to reduce RSPM level in the ambient air and a time bound action plan shall be submitted. On-line stake monitoring	A (i)Efforts made to reduce RSPM level in the ambient air is given below:-
	facilities for all the stacks and sufficient air Pollution control devices shall be provided. Electrostatic Precipitator (ESP) to sinter plant and bag house to Electric Arc Furnace (EAF), dust catcher and Ventury scrubber to mini Blast Furnace (BF) shall be provided to control the particulate emissions below 100mg/Nm <sup>3</sup> . Data on ambient air quality and stack emissions shall be regularly submitted to this Ministry including its Regional office at	(a) We have installed air pollution control system to the Sinter Plant & MBF cast house. Exhaust gases from SP tail end and head end is cleaned in ESPs to less than 100 mg/Nm3 and discharged. MBF waste gas is cleaned in dry dust catcher, saturator and Ventury scrubbers to less than 5 mg/Nm3 and used as fuel for CPP boilers and process.
	Bhubaneswar / CPCB / W.B. Pollution control board (WBPCB) once in six months.	(b) All the conveyors and transfer points has been enclosed.
		(c) Water sprinkling system (fixed and mobile type) has been provided in raw material handling yard, unloading point, and other vulnerable points where enclosure is not possible.
		(d) Roads and work places are cleaned at regular intervals. The cleaned materials/dust particles are collected and sent for re-use in the Sinter process plant. This is being monitored regularly and the concerned department has been made responsible to maintain it.
		(e) Raw Materials like Iron Ore Fines and Coke Fines are kept covered with Tarpaulin Sheets.
		(f) All the Vehicles plying inside the Plant are regularly checked for PUC compliance certificates (exhaust emission).
		(g) On line monitoring system has been installed for the following stacks:

SL	SPECIFIC CONDITION	COMPLIANCE STATUS
		<ol> <li>Sinter Plant Process stack</li> <li>Blast Furnace Stove stack</li> <li>Captive Power Plant stack</li> </ol>
		In addition to that, periodic (six monthly) environment monitoring is being carried out by NABL accredited agency.
		A (ii) Time bound Action Plan to reduce RSPM Level.
		(a) Tree Plantation is our ongoing process. Total 9805 nos. of saplings have been planted. Another 9000 nos. of saplings shall be planted within the financial year 2019-20 including Shrubs and Bushes in already acquired land and land to be acquired outside to make 33% of plantation.
		(b) We have not installed the EAF.
		(c) Last six-monthly report has been submitted for the period from October'18 to March'19 to this Ministry through e-mail and subsequently to its regional office at Bhubaneswar through speed post and to WBPCB by hand.
A (ii)	As proposed, Waste gases from BF, Sinter Plant, induction and electric arc furnace (IF/EAF) and rolling mill reheating furnace shall be routed through suitable pollution control devices and used in sinter plant.	We have installed only the BF and sinter plant. The flue gases are routed through appropriate air pollution control devices like GCP, ESP and bag filters as explained above.
A (iii)	Dust suppression and extraction system including water spraying shall also be provided to control dust from raw material handling and storage area to control fugitive emissions. Fume extraction system to EAF and IF and exhaust system shall be provided to continuous casting machine (CCM) to control hot fumes and vapors.	(a) As mentioned, Plant de-dusting system comprising of bag filters are provided to control the fugitive dust. Fixed Water Sprinkler provided at Ground hoppers, raw material handling area, truck tippler and mobile Water Sprinkling Tanker deployed to suppress the fugitive dust inside all the internal roads within the plant premises.
		(b) We have not installed EAF, IF, CCM and

SL	SPECIFIC CONDITION	COMPLIANCE STATUS
		RM.
A (iv)	Gaseous emission levels including secondary fugitive emission from blast furnace and sinter plant shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.	(a) Gaseous emission through stacks is within CPCB specified latest permissible limit. We monitor the environmental condition included ambient air, work zone and stack by NABL accredited external laboratory.
		(b) As mentioned above, Plant de-dusting system comprising of bag filters/ESPs are provided to control the fugitive emission in Sinter Plant and BF cast house. Fixed Water Sprinkler provided in Ground hopper, Raw Material handling area, truck tippler. Mobile Water Sprinkling Tanker deployed on daily basis, sprays water on roads inside the plant premises and in raw materials stock yard.
A (v)	Vehicular pollution due to transportation of raw material and finished products shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished products.	<ul> <li>Following measures have been adopted to control vehicle pollution due to transportation of raw material and finished product.</li> <li>(a) Fixed water sprinklers and Mobile water sprinkling tanker provided regularly for suppressing the vehicular dust emission at road and material handling area.</li> <li>(b) Road cleaning activity is in our regular practice.</li> <li>(c) We have made water bed on the main</li> </ul>
		concrete road for washing the on road vehicle wheel.
A (vi)	Total water requirement from Asansol Durgapur Development Authority (ADDA) shall not exceed 6,120 m3 / day. No ground water shall be abstracted. Closed circuit water re- circulation system shall be used to reduce water consumption. All the treated wastewater including blow down water from BF, Sinter	(a) We have permission to 2090 m3/day water from ADDA. We have not installed the SMS and Rolling Mill mentioned in EC. Only BF, CPP and Sinter Plant has been installed. The existing water requirement is 1849 m3 / day.
	plant etc, Shall be recycled and reused in the process, dust suppression and green belt development. 'Zero' effluent discharged shall	(b) Permission for drawing ground water has been obtained from SWID, Govt., of West Bengal. This permission has been taken to

SL	SPECIFIC CONDITION	COMPLIANCE STATUS
	be strictly followed and no wastewater shall be discharged outside the premises. Domestic effluent shall be used for green belt development	<ul> <li>meet the domestic water requirement of staffs, workmen and security personnel.</li> <li>(d) The plant is based on Zero Water discharge system (entire wastewater is treated and recycled/ reused within plant premises. No wastewater is discharged outside the plant premises.</li> <li>(e) Sanitary effluent is treated in septic tanks and soaks pits. Canteen waste is treated in Oil water separator and then used for greenery development.</li> </ul>
A (vii)	Permission for the drawl Of 6,120 m3/day from Asansol Durgapur Development Authority (ADDA) shall obtain.	As we are operating only BF and SP, permission for 2090 m3/day water has been obtained. Letter is attached in <b>Annexure I</b> from ADDA. (Letter no. ED/CA-79/04-05/1428, dt-19.07.05).
A (viii)	All the iron fines, coke fines, flue dust and mill scales shall be reused in the sinter plant. All the blast furnace slag shall be granulated and provided to cement manufacturers for further utilization. SMS / EAF slag shall be properly used inside the plant premises and shall not be disposed off anywhere else. All the other solid waste including broken refractory mass shall be properly disposed off in environments-friendly manner. Waste oil shall be sold to authorized recyclers / preprocessors.	<ul> <li>(a) Iron ore fines, coke fines and flue dust are reused in Sinter Plant. Mill scale is not generated in the plant as there are no rolling mills.</li> <li>(b) All BF Slag is granulated and sold for Cement making.</li> <li>(c) No steel making slag is generated as we have not installed SMS and EAF.</li> <li>(d) Broken refractory mass is used as subbase material for road making purpose inside the plant premises.</li> <li>(e) Waste Oil is being properly disposed through authorized agency M/s Ba-ma Oil Industries. Authorization letter is attached in Annexure II.</li> </ul>
A (ix)	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.	(a) We are disposing 100% Solid Waste generated from the plant in environment friendly manner.
		(b) Broken refractory mass is used as sub-

SL	SPECIFIC CONDITION	COMPLIANCE STATUS
		base material for road making purpose inside the plant premises.
A (x)	As proposed, green belt shall be developed in 33 % area within and around the plant premises as per the CPCB guidelines in consultation with DFO.	Trees plantation is our ongoing process. Total 9805 nos. of saplings have been planted till 30 <sup>th</sup> September, 2019 and another around 9000 sapling shall be planted within the financial year 2019-20. Tree plantation will be developed in area already acquired outside plant premises and additional area will be acquired outside to reach 33% limit in consultation with DFO.
A (xi)	All the recommendations made in the charter on corporate Responsibility for Environment Protection (CREP) for the Steel Plants Shall be implemented.	Neo Metaliks Ltd. as a whole taking necessary initiative to adhere the CREP as mentioned in <b>Annexure A</b> .
A (xii)	The company shall provide housing for construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the projects.	Already complied.

SL	GENERAL CONDITION	COMPLIANCE STATUS
B (i)	The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board (WBPCB) and the State Government.	Noted and complied. We have received the Consent to operate for MBF, Sinter Plant & CPP which is valid up to 30.04.2022.
B (ii)	No further expansion or modification in the plant should be carried out without prior approval of the Ministry of Environment, Forests & Climate Change.	Noted and complied.
B (iii)	The gaseous emission from various units shall conform to the load/mass based standards notified by this ministry on 19 <sup>th</sup> May 1993 and standards prescribed from time to time. The WBPCB may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standard. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceed.	<ul> <li>(a) The emissions are within limits. Stack monitoring is being regularly conducted by NABL accredited laboratories. Online stack monitoring system installed in major stacks. Results are directly transmitted to WBPCB. Monitoring Results are attached in Annexure III.</li> <li>(b) Pollution Control equipment are a part of the operating process of plant.</li> </ul>
B (iv)	In-plant control measures for checking fugitive emissions from all the vulnerable sources like spillage/raw materials /coal handling etc. shall be provided. Further, specific measures like provision of dust suppression system consisting of water sprinkling, suction hoods, fans and bag filters etc. shall be installed at material transfer points and other raw material handling areas. Centralize de-dusting system i.e. collection of fugitive emissions through suction hood and subsequent treatment through bag filter or any other device and finally emitted through a stack of appropriate design height conforming to the standards. Fugitive emissions shall be regularly monitored and	<ul> <li>(a) Work environment monitoring is done as per direction of WBPCB.</li> <li>(b) Plant de-dusting system comprising of bag filters are provided to control fugitive dust in BF and Sinter Plant. Fixed Water Sprinkler provided in Ground hopper, Raw Material handling area, truck tippler.</li> <li>(c) Mobile Water Sprinkling Tanker deployed inside the plant premises at regular basis.</li> <li>(d) Centralized de-dusting system i.e. collection of fugitive emissions through suction hood and subsequent treatment through ESP and finally emitted through 40 m tall provided stack.</li> <li>(e) We are submitting the results of fugitive</li> </ul>

SL	GENERAL CONDITION	COMPLIANCE STATUS
	records maintained.	emissions in work environment to this Ministry including its Regional office at Bhubaneswar / State Pollution control board (WBPCB) once in six months. The reports are attached in <b>Annexure IV</b> .
B (v)	At least, four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, S0 <sub>2</sub> and NOx are anticipated in consultation with the WBPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar, WBPCB and CPCB once in six months.	(a) We established five ambient air quality monitoring stations at the near Main Gate, near Admin Building, near Boundary Wall (North- East side), near CPP Cooling Tower and near PCM boundary wall where we do the periodic (six monthly) environment monitoring by the NABL accredited external agency and records are submitted to this Ministry including its Regional Office at Bhubaneswar and WBPCB once in six month. The reports are attached in (Annexure V).
		(b) We are doing periodic (Half yearly/Yearly) stack emission monitoring and records are submitted to this Ministry including its Regional Office at Bhubaneswar and WBPCB once in six month. The reports are attached in <b>Annexure III</b> .
B (vi)	Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Plant wastewater is treated and recycled for slag cooling, dust suppression and irrigation. No wastewater is discharged outside the plant premises. Sanitary effluent is treated in septic tanks and soaks pits. Canteen waste is treated in Oil water separator and then used for plantation.
B (vii)	The overall noises levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencer, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).	Noise monitoring results attached. The ambient noise levels at plant boundary are below 75 dBA during day time and 70 dBA during night time. Noise levels in work environment are below 85 dBA. The results are attached in <b>Annexure VI</b> .
B (viii)	Occupational health surveillance of the workers shall be done on a regular	(a) All employees during induction are screened for their health by qualified doctors.

SL	GENERAL CONDITION	COMPLIANCE STATUS
	basis and records maintained as per the factories Act.	(b) Periodic health examination is carried out as per the prevailing rules. The test conducted is Routine parameters and Specific Parameters and is done by per industrial hygiene experts.
B (ix)	The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	<ul> <li>(a) We have augmented the existing Sumps where runoff within the plant is collected. This water is utilized in the plant for dust suppression during lean season.</li> <li>(b) No natural drainage is getting intercepted by the</li> </ul>
		plant boundary and it is directed by peripheral drains outside.
B (x)	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programs,	(a) NML had taken up the environmental protection measures recommended in the EIA/EMP report during the construction phase earlier and presently, we are in practice to comply with all the operational environmental protection measures safeguards as recommended in EIA/EMP.
	educational programs, drinking water supply and health care etc.	(b) In addition, NML undertake the socio-economic development activities in the surrounding villages through this various programs like drinking water supply, improvement in village through infrastructure and sanitation development, health checkup camp, eye camp, blood donation camp, handicap camp, Skill development camp such as Stitching etc. are taken up on regular intervals.
B (xi)	As proposed, Rs. 25.00 Crores and Rs. 6.00 Crores shall be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forests & Climate Change as well as the state Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Ministry's Regional Office at Bhubaneswar. The funds so provided	For the existing plant consisting of MBF, Sinter Plant and CPP Rs. 13.39 Crores has been used as CAPEX for pollution control measures.( <b>Refer</b> <b>Annexure VII</b> )

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	should not be diverted for any other purpose.	
B (xii)	The Regional Office of this Ministry at Bhubaneswar / CPCB / WBPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored date along with statistical interpretation shall be submitted to them regularly.	Six-monthly EC condition compliance report is submitted to MOEF / WBPCB on regular basis.
B (xiii)	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the WBPCB and may also be seen at Website of the Ministry of environment and Forests at http:/envfor.nic.in. This shall be advertised within 7 days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the Same shall be forwarded to the Regional office.	Complied with.
B (xiv)	Project authorities 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 and the date of commencing the land Development work.	Complied.

### **ANNEXURE** I

FROM : NEO SITE

FAX NO. : 03432520948

: 03432520948 Oct. 24 2005 06:10PM P1 KIA: MR D. GHO!H, HO, KOL.

ASANSOL DURGAPUR DEVELOPMENT AUTHORITY

(A Statutory body of the Government of West Bengal)

City Centre. Durgapur-713 216, West Bengal

Phone PBX DCP (0343) 254 C015/ 254 C71C Durgapur Office 254-6889 Fax DGP (0343) 254-6665 e-mail dgp\_addadgp@sanchamet.in

Asamout Office , G. T. Road (East) Asansol Ph : (0341) 220-3004/ 220-2242 Fax No. : (0341) 220-5374

Date....13.

11-descorre

#### Rot. No. ADDA/DGP/ ED/CU-79/04-05/1428 From Chief Executive Officer,

Asansol Durgapur Dev. Authority City Centre, Durgapur-16.

Neo Metaliks Ltd. Park Plaza 714, Park street, 3E (North Block) Kolkata-700016.

Sub:- Water line for your Mega Project at Gopalpur, Durgapur-12

Sir,

To

Please refer to your lotter Ref. Nil. Dated 06.05.2004 on the above referred subject and be informed that we have planed to meet your requirement of 2090.10m<sup>3</sup> /day from HFCL water treatment plant.

We will be drawing a pipeline of 355 mm O.D.HDPE pipe of 5.87 km long to meet your requirement. A pump house including pumps and motor set and other ancillary work is to be constructed and installed as required.

The total rough cost estimate has been worked out to be Rs. 159.00 lakhs.

As we are creating a total infrastructure of water supply to Bamunara – Banskopa Industrial complex some infrastructure development cost is expected to be shared by our company over and above the standard fees and security money charged by the Authority.

In view of the above you are requested to deposit Rs.36.78 lakhs which is approximately 33.00% of the pipe line material cost at 20% discount only at the earliest to enable us to take further steps for implementation of the scheme.

Thanking you.

Yours faithfully,

Chief Executive Officer, 13172005 Asansol Durgapur Dev. Authority.

Ref. No. ADDA/DGP/\_

Dated

Copy forwarded to:-1) The Secretary, Bamunara Industries Association R.T.F. Ltd. Lanin Sarani, Durgapur.

Chief Executive Officer, Asansol Durgapur Dev. Authority.

# **ANNEXURE II**

#### FORM 10 { See Rule 19 (1)} MANIFEST FOR HAZARDOUS AND OTHER WASTE

1.	Sender's name and mailing address (including Phone No. and e-mail)	NEO METALIKS LTD: VIII-Gopalper, pro-Gopalper Dist-Burdwan,
2.	Sender's authorisation No.	84/25(HW)-2497/2009
3.	Manifest Document No.	
4.	Transporter's name and address : (including Phone No. e-mail)	BA-MA OIL INDUSTRIES, panchayat Road, VIII - Kharial · P.ODankuni C.C., Dist - Hogghly
5.	Type of vehicle	(Truck/Tanker/Special Vehicle) mini vehicle
6.	Transporter's registration No.	36/25(HW)-155/98-99
7.	Vehicle registration No.	WB. 15B14431
8.	Receiver's name and mailing address (including Phone No. and e-mail)	BA-MA OIL INDUSTRIES PANCHAYAT ROAD, VILL-KHARIAL P.O. DANKUNI CC. DISTHOOGHLY –712310 2674-1678, 2659-2183, bmoind@yahoo.co.in
9.	Receiver's authorisation No.	36/25(HW)-155/98-99
10.	Waste description	Waste Qii
11.	Total quantity No. of Containers	610 (17 m³ or MT 4Nos.
12.	Physical form	(Solid/ Semi Solid/ Sludge/Dily/Tarry//SlurryLiquid)
13.	Special handling instructions and additional information	Handling with care
14.	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road accordind to applicable national goverment regulations.
	Name and stamp. Signature	Month Day Year Ø 7 1 8 2 0 1 9
15.	Transporter acknowledgement of receipt of w	lasges
	Name and stamp.t Road Signature Vill: Kbadel, P.O. Dankuni A. Dende Dist: Hooghly	Month Day Year 07182019
16.	Receiver's certification for receipt of hazardo	
	Nameland stamp. Road Signature Vili: Kharial, P.O. Dankuni Dist: Hooghly	Month Day Year 0 7 1 8 2 0 1 9

Forwarded to WBPCB by sender,

### **ANNEXURE** A

Sta	ANNEXURE A: tatus of Charter on Corporate Responsibility for Environment Protection (CREP		
SI	Act	tion Points For Integrated Iron & Steel ustry.	Status at NML/ Action Plan.
1		Coke oven plant	
	a.	To meet the parameters PLD (% leaking doors). PLL (% leaking lids).	Not applicable because we do not have the Coke Oven Plant.
	b.	To rebuild at least 40% of the coke oven batteries in next 10 years (December 2012)	Not applicable because we do not have the Coke Oven Plant.
2		Steel Melting shop	Not applicable because we do not have the Steel Melting Shop
		Fugitive emission to reduce 30% within March 2004 and 100% in March 2008 (Including installation of secondary De- dusting facilities).	Not applicable because we do not have the Steel Melting Shop.
3		Blast furnace	
		Direct injection of reducing agent by June 2013 (C.D.I)	We are planning to retrofit PCI by Dec'19.
4		Solid waste / Hazardous waste	
		Utilization of steel Melting shop (SMS)/ Blast Furnace(BF) slag by: By 2004- 70% By 2006-80% By 2008-100%	100% BF Slag is Sold for Cement making. 100% Dust Collected from Air Pollution Control Devices and Sludge from Gas Cleaning Plant is reused in the Sinter Plant.
5		Hazardous Waste Management	
		Charge of tar sludge & ETP sludge to Coke ovens by June' 03.	As we don't have Coke Oven plant, we are not generating any tar sludge or ETP sludge.
		Inventorization of hazardous waste as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. (Tar sludge, acid sludge, and waste Lubricating oil and type flue falls in the category of hazardous waste.	Tar Sludge and Acid Sludge are not generated in BF. Waste lubricating Oil is Sold to authorized re- processor.
6		Water Conservation /Water Pollution	
	a.	To reduce specific water consumption of 5 m <sup>3</sup> /t for long products by December 2005.	We are not making any long products / No Rolling Mill Exists in the Plant.

	b	To operate the CO & BPP effluent treatment plant efficiently to achieve the notified effluent discharge standards - by July 2005.	No Coke Oven and By-Products plant existing in the Plant.
7		Installation of continuous stack monitoring system & its calibration in major stacks and setting up of the online ambient air quality monitoring stations by June 2005.	Installed in Major Stacks as per list attached in <b>Annexure III</b> .
8		To operate the existing pollution control equipment efficiently and to keep proper record run hours, failure time and efficiency with immediate effect. Compliance report in this regard is submitted to CPCB/SPCB every three month.	Pollution Control Equipment's are operated efficiently and record maintained. Compliance report in this regard is submitted to SPCB as Stipulated in CTO.
9		To implement the recommendations of Life Cycle Assessment (LCA) study sponsored by MOEF by December 2003.	Not Applicable as because no such recommendation of LCA Study is available in MOEF & CPCB Website.
10		The industry will initiate the steps to	
	а	Energy recovery to top blast furnace gas	Blast furnace gas after cleaning in GCP is being utilized as a fuel in C.P.P, MBF Stove, Sinter Plant, and Ladle pre-heating. Being a mini BF, Energy Recovery from top gas pressure is not provided.
	b	Use of tar free runner linings.	We are using Tar Free runner linings.
	C	Cast house de-dusting (tap holes, runners, skimmer, ladle and charging points).	We have installed fume extraction System in Cast House.
	d	Suppression of fugitive emissions using nitrogen gas or any other inert gas.	There is no fugitive emission of Hydro Carbon or Volatile Organic Compounds from the BF and Sinter Plant that requires suppression by using nitrogen gas or any other inert gas.

e	To study the possibility of slag fly ash transportation back to the abandoned mines to fill up the cavities through empty railway wagons while they return back to the mines and its implementation.	We are Selling 100% Slag for cement making. We are not generating any Fly Ash.
f	Processing of the waste containing flux & ferrous wastes through waste recycle plant.	We are reusing entire dust in sinter plant.
g	To implement rain water harvesting.	We have made the water harvesting sumps to collect the rain water and it is being used for our auxiliary consumption.
h	Reduction of greenhouse gases by:	
1	Reduction in power consumption	We have reduced the Power Consumption.
2	Use of byproducts gases for power generation	The hot gas generated from blast furnace is being utilized in the power generation in CPP which generates 4.5 MW power.
3	Promotion of energy optimization technology, including energy audit.	Complied.
4	As regard to the conservation of energy and fuel, we are using the heat exchanger to recover the waste heat energy of flue gases.	From April-2018, we have successfully commissioned the recuperator for the utilization of waste heat from flue gases.
i		We are Converting the dust to Sinter and using the Sinter in BF. This is reducing the use of Iron Ore in BF and helping in resource Conservation. Our Water Consumption is 1849 M3 per day to make about 537 Tons of material (Approx. 3.44 m3 water consumption per ton of finished metal produced).We are making efforts to further reduce the specific water consumption.

j	Up gradation in the monitoring analysis facilities for air and water pollution. Also to impart laboratory training to the manpower so that realistic data is obtained in the environmental monitoring laboratories.	Our Lab Staff is trained for analyzing the basic parameters in water and waste water. Online Monitoring facility has been provided in all major stacks. The Staff has been trained to analyze the trends along with NABL accredited lab.
k	To improve housekeeping.	<ul> <li>(a) To improve the house keeping within the plant premises, we are in practice of 5S implementation.</li> <li>(b) On regular basis cleaning of the spillage especially in RMHS and Ground hopper area is carried out.</li> <li>(c) The cleaned materials/dust particles are collected and sent for re-use in the Sinter process plant. This is being monitored regularly and the concerned department has been made responsible to maintain it.</li> </ul>

# **ANNEXURE III**

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

#### **TEST REPORT**

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-177
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-177
P.S. : Kanksa, Durgapur	Sample Description	: Stack Flue Gas
	Sample Mark	: CPP
Paschim Bardhaman	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019
West Bengal – 713 212		

#### **Analysis Result**

Cai	te & Time of Sampling : 11.09.2019 at 11.30 A.M.	Sampling Procedu	ures : EPA/IS
	mpling done by : S.Ghosh		
	General Information of Stack:	CDD	
1	Stack connected to	: CPP	PF Cas
2	Emission due to	: Combustion FO &	BF Gas
3	Material of construction of Stack	: MS : Circular	
4	Shape of Stack	: Yes	
5	Whether stack is provided with permanent platform	: 4.5 MW	
6	Generation Capacity	. 4.3 10100	
	: Physical Characteristic of Stack: Height of Stack from ground level	: 50.0 m	
1 2	Diameter of Stack at bottom	: 50.0 m	
2	Diameter of Stack at sampling point	: 1.4 m	
4	Height of the sampling point from ground level	: 31.0 m	3
5	Area of Stack	: 1.54m <sup>2</sup>	
_	Analysis/Characteristic of Stack :	. 10 111	
1.	Fuel used : BF Gas & Furnace Oil	2. Fuel consumption	n : BF Gas- 24000 m³/hr
D:	Results of Sampling & Analysis of gaseous Emission :	Result	Method
1	Temperature of emission (°C)	: 135	EPA Part 2
2	Barometric pressure (mm of Hg)	: 755	EPA Part 2
3	Velocity of gas (m/sec)	: 11.11	EPA Part 2
	Quantity of gas flow (Nm³/hr)	: 44638	EPA Part 2
4	Qualitity of gas now (rem /m)		
4 5	Concentration of Carbon monoxide (%)	: Bellow 0.2	IS:13270-1992, Reaf : 2009
		: Bellow 0.2 : 8.2	IS:13270-1992, Reaf : 2009
5	Concentration of Carbon monoxide (%)		IS:13270-1992, Reaf : 2009
5 6	Concentration of Carbon monoxide (%) Concentration of Carbon dioxide (%)	: 8.2	IS:13270-1992, Reaf : 2009 IS:13270-1992, Reaf : 2009
5 6 7	Concentration of Carbon monoxide (%) Concentration of Carbon dioxide (%) Concentration of Sulphur dioxide (mg/Nm3)	: 8.2 : 64.0	IS:13270-1992, Reaf : 2009 IS:13270-1992, Reaf : 2009 EPA Part-6
5 6 7 8 9	Concentration of Carbon monoxide (%) Concentration of Carbon dioxide (%) Concentration of Sulphur dioxide (mg/Nm3) Concentration of Nitrogen dioxide (mg/Nm3)	: 8.2 : 64.0 : 88.4	IS:13270-1992, Reaf : 2009 IS:13270-1992, Reaf : 2009 EPA Part-6 EPA Part-7
5 6 7 8 9	Concentration of Carbon monoxide (%) Concentration of Carbon dioxide (%) Concentration of Sulphur dioxide (mg/Nm3) Concentration of Nitrogen dioxide (mg/Nm3) Concentration of Particulate Matters (mg/Nm3)	: 8.2 : 64.0 : 88.4	IS:13270-1992, Reaf : 2009 IS:13270-1992, Reaf : 2009 EPA Part-6 EPA Part-7

(Benimadhab Gorai) **Authorised Signatory** 

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. •



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

#### TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-178
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-178
P.S. : Kanksa, Durgapur	Sample Description	: Stack Flue Gas
	Sample Mark	: MBF Plant (Blast Furnace)
Paschim Bardhaman	Defair Dete	: 19-20/00333/WBFREV, Dated: 11.09.2019
West Bengal - 713 212	Ref No. Date	

#### **Analysis Result**

				Method
1 Temperature of emission (°C) 170 EPA Part 2	ture of emission $\binom{0}{1}$ FPA Part 2	Results of Sampling & Analysis of gaseous Emission :	Result	Method
1 Temperature of emission (°C) :170 EPA Part 2	ture of emission (°C) FPA Part 2			
1 Temperature of emission (°C) 170 EPA Part 2	THE OT AMISSION (*) I			
				FPA Part 2
		Temperature of emission (°C)	: 170	EPA Part 2
2 Barometric pressure (mm of Hg) 755 EPA Part 7				
2 Barometric pressure (mm of Hg)		Barometric pressure (mm of Hg)	: 755	EPA Part 2
				EPA Part 2
	ric pressure (mm of Hg) 755 EPA Part 2			
3 Velocity of gas (m/sec) :7.94 EPA Part 2	ric pressure (mm of Hg) 755 EPA Part 2	Velocity of gas (m/sec)	: 7.94	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr) : 78647 EPA Part 2	of gas (m/sec) : 7.94 EPA Part 2	Quantity of gas flow (Nm <sup>3</sup> /hr)	: 78647	EPA Part 2
	of gas (m/sec) : 7.94 EPA Part 2			
5 Concentration of Carbon monoxide (%) Bellow 0.2 IS:13270-1992, R	of gas (m/sec) : 7.94 EPA Part 2	Concentration of Carbon monoxide (%)	: Bellow 0.2	IS:13270-1992, Reaf : 2009
	of gas (m/sec): 7.94EPA Part 2of gas flow (Nm³/hr): 78647EPA Part 2			Provide and the second s
	of gas (m/sec): 7.94EPA Part 2of gas flow (Nm³/hr): 78647EPA Part 2	Concentration of Carbon dioxide (%)	-86	IS-13270-1992 Reaf . 2009
	of gas (m/sec)       : 7.94       EPA Part 2         of gas flow (Nm³/hr)       : 78647       EPA Part 2         ration of Carbon monoxide (%)       : Bellow 0.2       IS:13270-1992, Reaf : 2009	Concentration of Carbon dioxide (%)	: 8.0	12:13510-1885' Keat : 500
6 Concentration of Carbon dioxide (%) 8.6 IS:13270-1992, Re	of gas (m/sec)       : 7.94       EPA Part 2         of gas flow (Nm³/hr)       : 78647       EPA Part 2         ration of Carbon monoxide (%)       : Bellow 0.2       IS:13270-1992, Reaf : 2009			The second
	of gas (m/sec)       : 7.94       EPA Part 2         of gas flow (Nm³/hr)       : 78647       EPA Part 2         ration of Carbon monoxide (%)       : Bellow 0.2       IS:13270-1992, Reaf : 2009         ration of Carbon dioxide (%)       : 8.6       IS:13270-1992, Reaf : 2009	Concentration of Sulphur dioxide (mg/Nm3)	: 81.0	EPA Part-6
	of gas (m/sec)       : 7.94       EPA Part 2         of gas flow (Nm³/hr)       : 78647       EPA Part 2         ration of Carbon monoxide (%)       : Bellow 0.2       IS:13270-1992, Reaf : 2009         ration of Carbon dioxide (%)       : 8.6       IS:13270-1992, Reaf : 2009		. 01.0	
	of gas (m/sec)       : 7.94       EPA Part 2         of gas flow (Nm³/hr)       : 78647       EPA Part 2         ration of Carbon monoxide (%)       : Bellow 0.2       IS:13270-1992, Reaf : 2009         ration of Carbon dioxide (%)       : 8.6       IS:13270-1992, Reaf : 2009	Concontration of Nitrogon diavide (mg/Nm2)	. 03 1	FDA Part-7
7 Concentration of Sulphur dioxide (mg/Nm3) : 81.0 EPA Part-6	of gas (m/sec)       : 7.94       EPA Part 2         of gas flow (Nm³/hr)       : 78647       EPA Part 2         ration of Carbon monoxide (%)       : Bellow 0.2       IS:13270-1992, Reaf : 2009         ration of Carbon dioxide (%)       : 8.6       IS:13270-1992, Reaf : 2009         ration of Sulphur dioxide (mg/Nm3)       : 81.0       EPA Part-6	Concentration of Nitrogen dioxide (mg/Nm3)	: 93.4	EPA Part-7
7 Concentration of Sulphur dioxide (mg/Nm3) : 81.0 EPA Part-6	of gas (m/sec)       : 7.94       EPA Part 2         of gas flow (Nm³/hr)       : 78647       EPA Part 2         ration of Carbon monoxide (%)       : Bellow 0.2       IS:13270-1992, Reaf : 2009         ration of Carbon dioxide (%)       : 8.6       IS:13270-1992, Reaf : 2009         ration of Sulphur dioxide (mg/Nm3)       : 81.0       EPA Part-6			
7 Concentration of Sulphur dioxide (mg/Nm3) : 81.0 EPA Part-6	of gas (m/sec)       : 7.94       EPA Part 2         of gas flow (Nm³/hr)       : 78647       EPA Part 2         ration of Carbon monoxide (%)       : Bellow 0.2       IS:13270-1992, Reaf : 2009         ration of Carbon dioxide (%)       : 8.6       IS:13270-1992, Reaf : 2009         ration of Sulphur dioxide (mg/Nm3)       : 81.0       EPA Part-6	Concentration of Particulate Matters (mg/Nm3)	: 32	EPA Part 5
7Concentration of Sulphur dioxide (mg/Nm3): 81.0EPA Part-68Concentration of Nitrogen dioxide (mg/Nm3): 93.4EPA Part-7	of gas (m/sec): 7.94EPA Part 2of gas flow (Nm³/hr): 78647EPA Part 2ration of Carbon monoxide (%): Bellow 0.2IS:13270-1992, Reaf : 2009ration of Carbon dioxide (%): 8.6IS:13270-1992, Reaf : 2009ration of Sulphur dioxide (mg/Nm3): 81.0EPA Part-6ration of Nitrogen dioxide (mg/Nm3): 93.4EPA Part-7			Enviore
7Concentration of Sulphur dioxide (mg/Nm3): 81.0EPA Part-68Concentration of Nitrogen dioxide (mg/Nm3): 93.4EPA Part-79Concentration of Particulate Matters (mg/Nm3): 32EPA Part 5	of gas (m/sec): 7.94EPA Part 2of gas flow (Nm³/hr): 78647EPA Part 2ration of Carbon monoxide (%): Bellow 0.2IS:13270-1992, Reaf : 2009ration of Carbon dioxide (%): 8.6IS:13270-1992, Reaf : 2009ration of Sulphur dioxide (mg/Nm3): 81.0EPA Part-6ration of Nitrogen dioxide (mg/Nm3): 93.4EPA Part-7ration of Particulate Matters (mg/Nm3): 32EPA Part 5			
7Concentration of Sulphur dioxide (mg/Nm3): 81.0EPA Part-68Concentration of Nitrogen dioxide (mg/Nm3): 93.4EPA Part-7	of gas (m/sec): 7.94EPA Part 2of gas flow (Nm³/hr): 78647EPA Part 2ration of Carbon monoxide (%): Bellow 0.2IS:13270-1992, Reaf : 2009ration of Carbon dioxide (%): 8.6IS:13270-1992, Reaf : 2009ration of Sulphur dioxide (mg/Nm3): 81.0EPA Part-6ration of Nitrogen dioxide (mg/Nm3): 93.4EPA Part-7ration of Particulate Matters (mg/Nm3): 32EPA Part 5	Pollution :		
	LEAD OIL Z	Temperature of emission (°C)	: 170	EPA Part 2
1 Temperature of emission (°C) :170 EPA Part 2	ture of emission (°C) 170 FPA Part 2	Results of Sampling & Analysis of gaseous Emission :	Result	Method
D : Results of Sampling & Analysis of gaseous Emission : Result Method	Sampling & Analysis of gaseous Emission : Result Method	Fuel used . BF Gas & Coke	2. Fuel consumption : 4000	00 m <sup>3</sup> /hr/stove & Coke-600 kg/
D : Results of Sampling & Analysis of gaseous Emission : Result Method	Sampling & Analysis of gaseous Emission : Result Method			
1     Fuel_used     . BF Gas & Coke     2. Fuel_consumption : 40000 m <sup>3</sup> /hr/stove & Coke       D : Results of Sampling & Analysis of gaseous Emission :     Result     Method	d     . BF Gas & Coke     2. Fuel consumption : 40000 m³/hr/stove & Coke-G00 kg/²       Sampling & Analysis of gaseous Emission :     Result     Method		: 4.1204 111	
C : Analysis/Characteristic of Stack :         1       Fuel used . BF Gas & Coke         2. Fuel consumption : 40000 m³/hr/stove & Coke         D : Results of Sampling & Analysis of gaseous Emission :         Result       Method	haracteristic of Stack :       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-600 kg/ <sup>1</sup> d . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-600 kg/ <sup>1</sup> Sampling & Analysis of gaseous Emission :       Result			
5       Area of Stack       : 4.1204 m <sup>2</sup> C : Analysis/Characteristic of Stack :       1       Fuel used : BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D : Results of Sampling & Analysis of gaseous Emission :       Result       Method	itack : 4.1204 m <sup>2</sup> haracteristic of Stack : d : BF Gas & Coke 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-600 kg/T Sampling & Analysis of gaseous Emission : <u>Result</u> <u>Method</u>	Height of the sampling point from ground level	: 26.82 m	y
5       Area of Stack       : 4.1204 m <sup>2</sup> C : Analysis/Characteristic of Stack :       1       Fuel used : BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D : Results of Sampling & Analysis of gaseous Emission :       Result       Method	itack : 4.1204 m <sup>2</sup> haracteristic of Stack : d : BF Gas & Coke 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-600 kg/T Sampling & Analysis of gaseous Emission : <u>Result</u> <u>Method</u>	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 :       :         1       Fuel used . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D: Results of Sampling & Analysis of gaseous Emission :       Result       Method	f the sampling point from ground level       : 26.82 m         itack       : 4.1204 m <sup>2</sup> characteristic of Stack :       :         d . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-G00 kg/1         Sampling & Analysis of gaseous Emission :       Result       Method		:	
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 :       : 4.1204 m <sup>2</sup> 1       Fuel used . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D: Results of Sampling & Analysis of gaseous Emission :       Result       Method	r of Stack at sampling point : 2.29 m f the sampling point from ground level : 26.82 m itack : 4.1204 m <sup>2</sup> tharacteristic of Stack : d . BF Gas & Coke 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-G00 kg/ <sup>2</sup> Sampling & Analysis of gaseous Emission : <u>Result</u> <u>Method</u>		. 50.0 m	
2       Diameter of Stack at bottom       :         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 :       :       4.1204 m <sup>2</sup> 1       Fuel used . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D: Results of Sampling & Analysis of gaseous Emission :       Result       Method	r of Stack at bottom : r of Stack at sampling point : 2.29 m f the sampling point from ground level : 26.82 m itack : 4.1204 m <sup>2</sup> tharacteristic of Stack : d . BF Gas & Coke 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-G00 kg/ <sup>-1</sup> Sampling & Analysis of gaseous Emission : <u>Result Method</u>		· 50.0 m	
1       Height of Stack from ground level       : 50.0 m         2       Diameter of Stack at bottom       :         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 :       :       4.1204 m <sup>2</sup> 1       Fuel used . BF Gas & Coke       2. Fuel consumption ; 40000 m <sup>3</sup> /hr/stove & Coke         D: Results of Sampling & Analysis of gaseous Emission :       Result       Method	f Stack from ground level : 50.0 m r of Stack at bottom : r of Stack at sampling point : 2.29 m f the sampling point from ground level : 26.82 m itack : 4.1204 m <sup>2</sup> haracteristic of Stack : d . BF Gas & Coke 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-G00 kg/ <sup>2</sup> Sampling & Analysis of gaseous Emission : <u>Result Method</u>			
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       : 2.29 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 :       :       4.1204 m <sup>2</sup> D : Results of Sampling & Analysis of gaseous Emission :       Result       Method	haracteristic of Stack:         f Stack from ground level       : 50.0 m         r of Stack at bottom       :         r of Stack at sampling point       : 2.29 m         f the sampling point from ground level       : 26.82 m         itack       : 4.1204 m <sup>2</sup> haracteristic of Stack :       :         d . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-600 kg/ <sup>2</sup> Sampling & Analysis of gaseous Emission :       Result       Method	Generation Capacity		
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       : 2.29 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 :       1         1       Fuel used : BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D : Results of Sampling & Analysis of gaseous Emission :       Result       Method	haracteristic of Stack:         f Stack from ground level       : 50.0 m         r of Stack at bottom       :         r of Stack at sampling point       : 2.29 m         f the sampling point from ground level       : 26.82 m         itack       : 4.1204 m <sup>2</sup> haracteristic of Stack :       :         d . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-600 kg/ <sup>1</sup> Sampling & Analysis of gaseous Emission :       Result	Whether stack is provided with permanent platform	: Yes	
6       Generation Capacity       :         B : Physical Characteristic of Stack:       : 50.0 m         1       Height of Stack from ground level       : 50.0 m         2       Diameter of Stack at bottom       :         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 :       1       Fuel used . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D : Results of Sampling & Analysis of gaseous Emission :       Result       Method	on Capacity       :         haracteristic of Stack:       : 50.0 m         f Stack from ground level       : 50.0 m         r of Stack at bottom       :         r of Stack at sampling point       : 2.29 m         f the sampling point from ground level       : 26.82 m         itack       : 4.1204 m <sup>2</sup> haracteristic of Stack :       : 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-G00 kg/ <sup>T</sup> Sampling & Analysis of gaseous Emission :       Result       Method		: Circular	
5       Whether stack is provided with permanent platform       : Yes         6       Generation Capacity       :         8       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       : 2.29 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 :       :       4.1204 m <sup>2</sup> 1       Fuel used . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D: Results of Sampling & Analysis of gaseous Emission :       Result       Method	stack is provided with permanent platform : Yes on Capacity : tharacteristic of Stack: f Stack from ground level : 50.0 m r of Stack at bottom : r of Stack at sampling point : 2.29 m f the sampling point from ground level : 26.82 m ttack : 4.1204 m <sup>2</sup> tharacteristic of Stack : d : BF Gas & Coke 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-G00 kg/7 Sampling & Analysis of gaseous Emission : Result Method			
4       Shape of Stack       : Circular         5       Whether stack is provided with permanent platform       : Yes         6       Generation Capacity       :         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       : 2.29 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 :       :       4.1204 m <sup>2</sup> 1       Fuel used . BF Gas & Coke       2. Fuel consumption ; 40000 m <sup>3</sup> /hr/stove & Coke	Stack       : Circular         stack is provided with permanent platform       : Yes         on Capacity       :         characteristic of Stack:       :         f Stack from ground level       : 50.0 m         r of Stack at bottom       :         r of Stack at bottom       :         r of Stack at sampling point       : 2.29 m         f the sampling point from ground level       : 26.82 m         itack       : 4.1204 m <sup>2</sup> characteristic of Stack :       : 4.1204 m <sup>2</sup> d . BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-600 kg/ <sup>2</sup> Sampling & Analysis of gaseous Emission :       Result       Method			as & 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       :         B: Physical Characteristic of Stack:       : 50.0 m         2       Diameter of Stack at bottom       :         3       Diameter of Stack at bottom       : 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 :       :       4.1204 m <sup>2</sup> D: Results of Sampling & Analysis of gaseous Emission :       Result       Method	of construction of Stack : MS Stack : Circular stack is provided with permanent platform : Yes on Capacity : characteristic of Stack: f Stack from ground level : 50.0 m r of Stack at bottom : r of Stack at sampling point : 2.29 m f the sampling point from ground level : 26.82 m itack : 4.1204 m <sup>2</sup> characteristic of Stack : d . BF Gas & Coke 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-G00 kg/ <sup>-</sup> Sampling & Analysis of gaseous Emission : Result Method			
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       :         8       Physical Characteristic of Stack:       : 50.0 m         1       Height of Stack from ground level       : 50.0 m         2       Diameter of Stack at bottom       :         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 :       :       4.1204 m <sup>2</sup> D: Results of Sampling & Analysis of gaseous Emission :       Result       Method	due to: Combustion BF Gas & Cokeof construction of Stack: MSStack: Circularstack is provided with permanent platform: Yeson Capacity:haracteristic of Stack::f Stack from ground level: 50.0 mr of Stack at bottom:r of Stack at sampling point: 2.29 mf the sampling point from ground level: 26.82 mitack: 4.1204 m²haracteristic of Stack:: 4.1204 m²d . BF Gas & Coke2. Fuel consumption : 40000 m³/hr/stove & Coke-G00 kg/*Sampling & Analysis of gaseous Emission :ResultMethod		· MRE Dlant (Plact	Furnacal
1       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       :         8       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       : 2.29 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 :       :       1         1       Fuel used : BF Gas & Coke       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke	nnected to : MBF Plant (Blast Furnace) due to : Combustion BF Gas & Coke of construction of Stack : MS Stack : Circular stack is provided with permanent platform : Yes on Capacity : haracteristic of Stack: f Stack from ground level : 50.0 m r of Stack at bottom : r of Stack at sampling point : 2.29 m f the sampling point from ground level : 26.82 m itack : 4.1204 m <sup>2</sup> haracteristic of Stack : d . BF Gas & Coke 2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke-G00 kg/ <sup>-</sup> Sampling & Analysis of gaseous Emission : Result Method			
A : General Information of Stack:       1       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       :         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       : 2.29 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 :       :       2. Fuel consumption : 40000 m <sup>3</sup> /hr/stove & Coke         D : Results of Sampling & Analysis of gaseous Emission :       Result       Method	formation of Stack:	npling done by : S.Ghosh	Sampling Procee	lures EPA/IS
3			Stack connected to Emission due to Material of construction of Stack Shape of Stack Whether stack is provided with permanent platform Generation Capacity <b>Physical Characteristic of Stack:</b> Height of Stack from ground level Diameter of Stack at bottom Diameter of Stack at sampling point Height of the sampling point from ground level Area of Stack <b>Analysis/Characteristic of Stack :</b> Fuel used : BF Gas & Coke <b>Results of Sampling &amp; Analysis of gaseous Emission :</b> Temperature of emission (°C) Barometric pressure (mm of Hg) Velocity of gas (m/sec) Quantity of gas flow (Nm <sup>3</sup> /hr) Concentration of Carbon monoxide (%) Concentration of Sulphur dioxide (mg/Nm3) Concentration of Nitrogen dioxide (mg/Nm3)	mpling done by: S.GhoshSampling ProcedGeneral Information of Stack: Stack connected to: MBF Plant (BlastEmission due to: Combustion BF GMaterial of construction of Stack: MSShape of Stack: CircularWhether stack is provided with permanent platform: YesGeneration Capacity:Physical Characteristic of Stack:: S0.0 mDiameter of Stack at bottom:Diameter of Stack at bottom:Diameter of Stack at sampling point: 22.9 mHeight of the sampling point from ground level: 26.82 mArea of Stack: 4.1204 m²Analysis/Characteristic of Stack : Fuel used . BF Gas & Coke: Fuel consumption : 4000Results of Sampling & Analysis of gaseous Emission : Temperature of emission (°C): 170Barometric pressure (mm of Hg): 755Velocity of gas (m/sec): 7.94Quantity of gas flow (Nm³/hr): 78647Concentration of Carbon monoxide (%): Bellow 0.2Concentration of Sulphur dioxide (mg/Nm3): 81.0Concentration of Nitrogen dioxide (mg/Nm3): 93.4

Report prepared By : R. Roy

for Qualissure Laboratory Services

(Benimadhab Gorai) Authorised Signatory

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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



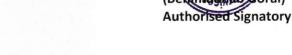
#### **TEST REPORT**

DOC NO	QLS/SAMP/08-B/0	0
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Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-179
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019
CARTAN CONTRACT AND CONTRACT CONTRACT AND CO	Sample No.	: QLS/A/19-20/N-179
Vill + P.O. : Gopalpur	Sample Description	: Stack Flue Gas
P.S. : Kanksa, Durgapur	Sample Mark	: Sinter Plant (Tail ESP)
Paschim Bardhaman	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019
West Bengal – 713 212		

#### **Analysis Result**

Date & Time of Sampling : 12.09.2019 at 12.40 P.M.	Sampling Procedu	res · FPA/IS
Sampling done by : S.Ghosh	Sampling Trocedu	
A : General Information of Stack:		
1 Stack connected to	: Sinter Plant (Tail ES	P)
2 Emission due to	: Process Activity	
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:		
1 Height of Stack from ground level	: 40.0 m	
2 Diameter of Stack at bottom	:	
3 Diameter of Stack at sampling point	: 2.0 m	
4 Height of the sampling point from ground level	: 35.0 m	8
5 Area of Stack	: 3.1429 m <sup>2</sup>	
C : Analysis/Characteristic of Stack :		
1 Fuel used :	2. Fuel consumption	: 3
D : Results of Sampling & Analysis of gaseous Emission :	Result	Method
1 Temperature of emission (°C)	: 76	EPA Part 2
2 Barometric pressure (mm of Hg)	: 755	EPA Part 2
3 Velocity of gas (m/sec)	: 10.36	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr)	: 99090	EPA Part 2
5 Concentration of Carbon monoxide (%)	: Bellow 0.2	IS:13270-1992, Reaf : 2009
6 Concentration of Carbon dioxide (%)	: 2.4	IS:13270-1992, Reaf : 2009
7 Concentration of Sulphur dioxide (mg/Nm3)	: <3.4	EPA Part-6
8 Concentration of Nitrogen dioxide (mg/Nm3)	: 48.8	EPA Part-7
9 Concentration of Particulate Matters (mg/Nm3)	: 23	EPA Part 5
E : Pollution :		
Details of pollution control devices attached with the stack	: ESP	
F: Remarks : Nil		
eport prepared By : ()~	for Qualise	re Laboratory Services



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## ANNEXURE IV



TC-6271

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

### TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-185
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-185
P.S. : Kanksa, Durgapur	Sample Description	: Work Zone Monitoring
Paschim Bardhaman	Sample Mark	: Near Tail ESP
West Bengal – 713 212	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019

#### **Analysis Result**

Loca	tion : Near Tail ESP	Date of sampli	ng : 11.09.2019
Sam	oling Done by: J.Sahana/S.Ghosh	Sampling done	as per : CPCB Guidelines (Volume-1)
Envir	ronmental Condition : Clear & Sunny		
SI. No.	Pollutants	Result	Method of Test Reference
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	1208	IS 5182 : Part.4-1999,(RA-2014)
2	Respirable Suspended Particulate Matter in µg/m <sup>3</sup>	489	IS 5182: Part 23 : 2017
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	8.2	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO₂) in μg/m³	43.8	IS: 5182 (Part- 6)-2006, RA-2017

Report prepared By

: R. Roy

for Qualissure Laboratory Services

Brn+u' (Benimadhab Gorai) Authorized Signatory

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### TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-187
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-187
P.S. : Kanksa, Durgapur	Sample Description	: Work Zone Monitoring
Paschim Bardhaman	Sample Mark	: Hot Metal Bay
West Bengal – 713 212	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019

#### **Analysis Result**

Location : Hot Metal Bay		Date of sampling : 12.09.2019	
Sampling Done by: J.Sahana/S.Ghosh		Sampling don	e as per : CPCB Guidelines (Volume-1)
Envir	ronmental Condition : Clear & Sunny	a and a second	
SI. No.	Pollutants	Result	Method of Test Reference
1	Total Suspended Particulate Matter in µg/m <sup>3</sup>	803	IS 5182 : Part.4-1999,(RA-2014)
2	Respirable Suspended Particulate Matter in µg/m <sup>3</sup>	369	IS 5182: Part 23 : 2012
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	7.7	IS: 5182 (Part-2)-2001,(RA-2012)
4	Nitrogen dioxide (NO₂) in μg/m³	38.8	IS: 5182 (Part- 6)-2012

Report prepared By : R. Rof

for Qualissure Laboratory Services

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## ANNEXURE V

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

#### TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-172	
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019	
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-172	
P.S. : Kanksa, Durgapur	Sample Description	: Ambient Air	
Paschim Bardhaman	Sample Mark	: PCM Side Boundary Wall	
West Bengal – 713 212	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019	

#### **Analysis Result**

Location: PCM Side Boundary Wall			Date of sampling : 11.09.2019		
Sampling Done by: J.Sahana/S.Ghosh		Sampling done	Sampling done as per : CPCB Guidelines (Volume-1		
Envir	ronmental Condition : Clear & Sunny		1		
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference	
1	Particulate matter (PM <sub>10</sub> ) in $\mu$ g/m <sup>3</sup>	88	100	IS: 5182 (Part-23), RA-2017	
2	Particulate matter $PM_{2.5}$ ) in $\mu g/m^3$	47	60	USEPA CFR-40,Part-50, Appendix-L	
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m3	9.1	80	IS: 5182 (Part-2)-2001, RA-2017	
4	Nitrogen dioxide (NO₂) in µg/m3	37.0	80	IS: 5182 (Part- 6)-2006, RA-2017	

Report prepared By : R. Rot

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#### TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-173
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-173
P.S. : Kanksa,Durgapur	Sample Description	: Ambient Air
Paschim Bardhaman	Sample Mark	: Near Main Gate
West Bengal – 713 212	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019

#### **Analysis Result**

Location: Near Main Gate			Date of sampling : 11.09.2019	
Sampling Done by: J.Sahana/S.Ghosh		Sampling done	as per : CPCB Guidelines (Volume-1)	
Envir	onmental Condition : Clear & Sunny			
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM <sub>10</sub> ) in $\mu$ g/m <sup>3</sup>	94	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter $PM_{2.5}$ ) in $\mu g/m^3$	59	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m3	8.5	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO₂) in µg/m3	35.2	80	IS: 5182 (Part- 6)-2006, RA-2017

Report prepared By : R. Roy

for Qualissure Laboratory Services

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#### TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-174
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-174
P.S. : Kanksa, Durgapur	Sample Description	: Ambient Air
Paschim Bardhaman West Bengal – 713 212	Sample Mark	: Near Boundary Wall (North East Side)
West Bengal – 713 212	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019

#### **Analysis Result**

Loca	tion: Near Boundary Wall (North East Sig	Date of sampling : 11.09.2019		
Sampling Done by: J.Sahana/S.Ghosh		Sampling done	Sampling done as per : CPCB Guidelines (Volume-	
Envir	onmental Condition : Clear & Sunny			
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference
1	Particulate matter (PM <sub>10</sub> ) in $\mu$ g/m <sup>3</sup>	83	100	IS: 5182 (Part-23), RA-2017
2	Particulate matter $PM_{2.5}$ ) in $\mu g/m^3$	46	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m3	10.0	80	IS: 5182 (Part-2)-2001, RA-2017
4	Nitrogen dioxide (NO <sub>2</sub> ) in µg/m3	36.3	80	IS: 5182 (Part- 6)-2006, RA-2017

Report prepared By

: R. Rog

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#### **TEST REPORT**

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-175	
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019	
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-175	
P.S. : Kanksa,Durgapur	Sample Description	: Ambient Air	
Paschim Bardhaman	Sample Mark	: Near CPP Cooling Tower	
West Bengal – 713 212	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019	

#### **Analysis Result**

Location: Near CPP Cooling Tower			Date of sampling : 12.09.2019		
Sampling Done by: J.Sahana/S.Ghosh		Sampling done	Sampling done as per : CPCB Guidelines (Volume-1)		
Envir	ronmental Condition : Clear & Sunny				
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference	
1	Particulate matter ( $PM_{10}$ ) in $\mu g/m^3$	77	100	IS: 5182 (Part-23), RA-2017	
2	Particulate matter $PM_{2.5}$ ) in $\mu g/m^3$	45	60	USEPA CFR-40,Part-50, Appendix-L	
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m3	9.1	80	IS: 5182 (Part-2)-2001, RA-2017	
4	Nitrogen dioxide (NO₂) in µg/m3	31.9	80	IS: 5182 (Part- 6)-2006, RA-2017	

Report prepared By

: R. Roy

#### for Qualissure Laboratory Services

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#### TEST REPORT

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-176	
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019	
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-176	
P.S. : Kanksa, Durgapur	Sample Description	: Ambient Air	
Paschim Bardhaman	Sample Mark	: Near Administrative Building	
West Bengal – 713 212	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019	

#### **Analysis Result**

Location: Near Administrative Building			Date of sampling : 12.09.2019		
Sampling Done by: J.Sahana/S.Ghosh		Sampling done	as per : CPCB Guidelines (Volume-1)		
Envir	onmental Condition : Clear & Sunny				
SI. No.	Pollutants	Result	Limit as per CPCB	Method of Test Reference	
1	Particulate matter (PM <sub>10</sub> ) in $\mu$ g/m <sup>3</sup>	82	100	IS: 5182 (Part-23), RA-2017	
2	Particulate matter $PM_{2.5}$ ) in $\mu g/m^3$	45	60	USEPA CFR-40,Part-50, Appendix-L	
3	Sulphur dioxide (SO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	8.4	80	IS: 5182 (Part-2)-2001, RA-2017	
4	Nitrogen dioxide (NO <sub>2</sub> ) in $\mu$ g/m <sup>3</sup>	35.9	80	IS: 5182 (Part- 6)-2006, RA-2017	

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

Report prepared By :

: R. Roy

#### for Qualissure Laboratory Services

(Benimadhab Gorai) Authorised Signatory

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# ANNEXURE VI



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

#### **TEST REPORT**

Name & Address Of the Customer :	Report No.	: QLS/A/19-20/C/N-184
M/s. Neo Metaliks Ltd.	Date	: 17.09.2019
Vill + P.O. : Gopalpur	Sample No.	: QLS/A/19-20/N-184(A-D)
P.S. : Kanksa,Durgapur Paschim Bardhaman	•	: Noise Monitoring
West Bengal – 713 212	Ref No. Date	: 19-20/00333/WBFREV, Dated: 11.09.2019

#### **Analysis Result of Noise**

Sampling Done By: J.Sahana/S.Ghosh								
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		
184A	11.09.2019	Near PCM Boundary Wall	61.0	65	54.8	55		
184B	12.09.2019	Admin Building	62.2	65	51.7	55		
184C	12.09.2019	Near CPP Area	63.5	65	54.6	55		
184D	11.09.2019	Near Main Gate	64.1	65	53.2	55		

Report Prepared By : Soumy Chakraborty

for Qualissure Laboratory Services

(Dr. Sutapa Bhowmik) Authorized Signatory

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# **ANNEXURE VII**





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

#### **ANNEXURE- VII**

DETAIL	S OF CAPITAL EXP. FOR ENVIRONMENT EQUIPMENTS	AL PROTECTION	
SL. No.	Name of the Equipments	Amount (Rs. In Crores)	
	MBF		
01	GAS CLEANING PLANT		
02	VENTURY	3.80	
03	SATURATOR		
04	FUME EXTRACTION SYSTEMS	0.70	
05	ALL MBF STACK (II, IV & V)	0.55	
06	ONLINE STACK MONITERING SYSTEM	0.03	
	CPP		
01	CPP STACK (III)	0.28	
	SINTER		
01	ESP	7.25	
02	BAG FILTER	0.40	
03	STACK (1) :	0.35	
04	ONLINE STACK MONITERING SYSTEM	0.03	
	TOTAL	13.39	



### **ANNEXURE B**

### Detailed Energy Audit, At Neo Metaliks Ltd.

We would be happy to provide any further clarifications, if required, to facilitate Implementation of the recommendations.

We received full co-operation and active support from the officers and maintenance staff of the Gopalpur Plant, NEO METALIKS LTD.

This section presents a brief summary of the results of the Detailed Energy Audit 2016-17 carried out during August to September 2017. The study covered mainly scope for electrical & thermal energy savings in "NEO METALIKS LTD", located at Gopalpur, Durgapur, West Bengal with a focus mainly on proposals and recommendations, which require low, medium & high investments.

- 1. A team of specialist consultants including Certified Energy auditors BEE, Govt. of India and three assistant were involved in energy audit. The energy audit was mainly targeted at indentifying practical, sustainable and economically viable energy saving opportunities in all sections of the plant, resulting from a detailed study and analysis of technical parameters. The energy audit involved using a wide range of sophisticated, portable, diagnostic and measuring instruments to generate the data festinate in analysis to give a more reliable basis for evaluation of energy saving potential and economic Viability.
- 2. There is ample scope for Auxiliary power consumption reduction in Plant and if all the recommendation is implemented enough energy saving can be archive.
- 3. For techno economic calculation purpose electricity rate of rupees 4.2/ KWH has been considerate.

6 DFIC Management Consultants Pvt. Ltd., India

2.0 Notes

### Detailed Energy Audit, At Neo Metaliks Ltd.

5. The total proposed Annual energy saving is 25,80,579 KWH which corresponds to approximately 325.83KW load in respect of 7290 Total running hour's in a year . In the energy saving calculation we have considered energy cost as Rs 4.2/KWH(DVC's/ unit average energy charge on monthly electric bill including all rebates etc) with Total Investment of Rs.115.61 Lakhs. In practice the savings may come 1/4<sup>th</sup> of the calculated saving shown in the proposal as the power cost of CPP is considered as Rs 1/KWH and hence in most of the cases the payback period may be 4<sup>th</sup> times than what has been shown. But considering the plant condition of constrain in MBF gas this reduction in power consumption to the tune of approximately 280KW may be considered worth. Besides the annual energy saving there is approximately (2376+240+34848+647) =38111 tone of Yearly MBF gas saving which is Equivalent to approximately (161+16+2369+44) = 2590 TOE saving as shown in Proposal no. 10,12, 13&14.