

# **BRAVO SPONGE IRON PRIVATE LIMITED**

CIN: U27106WB1997PTC082921 | GSTIN: 19AACCB5058J1ZH | PAN: AACCB5058J | State: West Bengal | State Code: 19

Ref: -BSIPL/SMC/MoEFCC/APRIL-2023 to SEPT-2023

Date: 30.11.2023

To,
The Inspector General of Forest (IGF)
GOI, MoEF&CC,
Integrated Regional Office, Kolkata
IB-198, Salt Lake City, Sector-III, Kolkata – 700106

SUB: Six Monthly (April-2023 to Sept-2023) Compliance to Environmental Clearance conditions vide MoEF&CC F. No. J-11011/758/2009-IA-II (I) Dated 05th November, 2020 and F. No. J-11011/758/2009-IA-II (I) Dated 18th April, 2017 by M/s Bravo Sponge Iron Pvt. Limited, Vill-Mahuda, PO-Rukni, Dist- Purulia (WB)-723145

Dear Sir/Ma'am,

With reference to the subject, we are submitting herewith the Six Monthly Compliance Report (Period April-2023 to Sept-2023) of M/s Bravo Sponge Iron Private Limited, Vill- Mahuda, P.O- Rukini, P.S- Para, Dist- Purulia (WB) as per the directives of Ministry of Environment Forest and Climate Change, Government of India. Point wise compliance status report along with latest environment monitoring data is enclosed for your kind perusal.

Hard copy of the report has not been sent following MoEFCC Eastern Regional Office direction vide File No. 106-12/EPE Dated 11.05.2020. Hope you will find the same in order.

Kindly acknowledge our submission.

Thanking you and with regards,

Yours faithfully,

For Brave Sponge Iron Pvt. Limited

Authorized S

Encl: as above

Copy to:

The Environmental Engineer Bengal Pollution Control Board, Asansol Regional Office, Kalyanpur Satelite Township Project, Dr. B.C. Roy Road, PO- Dakshin Dhadka, Asansol-713302 Dist.-Paschim Bardhaman (WB)

# SIX MONTHLY COMPLIANCE RPORT

Name of the Project	:	M/S BRAVO SPONGE IRON PVT. LIMITED Vill-Mahuda, PO-Rukni, PS-Para, Dist-Purulia (WB)
Environmental Clearance Letter Ref.	:	F. No.: J-11011/758/2009-IA-II(I) dated 05th November, 2020 and F. No.: J-11011/758/2009-IA. II(I), Dated: 18th April, 2017
Period of Compliance Report		April-2023 to September -2023

	onmental Clearance F. No.: J-11011/758/2009-IA	
S No	Conditions	Compliance Status
A. S	pecific conditions	The state of the s
i.	The 95 TPD DRI Unit shall be upgraded to 100 TPD with installation of 2MW WHRB.	Noted. It shall be implemented.
ii.	All dust generated and collected from the plant roads, floors and bag houses/ESPs shall be recycled to Pellet Plant.	It is being complied.  The dust generated from material handling & operational areas i. e. floors, bag houses, ESPs etc. are collected and blended with input raw material of Pellet Plant for the reprocess.
iii.	CPP shall meet all norms for PM, SO <sub>2</sub> and NO <sub>X</sub> emissions. CEMS shall be integrated with the plant control and the monitored data shall be used for process control.	CEMS has already been installed and integrated with process control system where monitoring data being displayed and considered for process control.
iv.	Producer Gas Plant shall be closed circuit type without any generation of phenolic water. Tar sludge and tar shall be handled in environmentally sound manner as per HW Rules, 2016.	It is being complied. Generated Tar and sludge from producer gas being stored in properly isolated storage system. It is being/ shall be used as Fuel in the Kilns/alternately sold to authorized reprocessors approved by SPCB / CPCB. Form 10 attached as Annexure -1.
v.	Only DVC water shall be used and abstraction of ground water is not permitted.	Noted. It is being/shall be adhered accordingly. The company takes water from Damodar Valley Corporation (DVC). No ground water being extracted.
vi.	100% water consumed annually shall be recharged through water harvesting.	Rain water harvesting ponds have been developed within the plant premises to natural recharge of ground water. Further it will be enhanced with implementation of expansion project. The company is in the process of adapting ponds in nearby areas for more rain water harvesting and natural recharge.  The company has developed 02 nos. pond in Kashiberia and Govindpur village for rain water harvesting.

	onmental Clearance F. No.: J-11011/758/2009-IA	Compliance Status
S No vii.	Conditions A sum of Rs. 3.8125Cr shall be allocated to	CER activities are under implementation as mentioned in
VII.	CER Activities as per list furnished and all CER Activities shall be completed within three years.	the EIA/EMP report.  Company has already deployed mobile water tanker for water sprinkling inside the plant and also on village roads and the roads connecting to the plant. Drinking water supply to villages  Solar lighting system in the village Mahuda & Kashiberia total 10 nos.  Construction of health check-up Centre has been completed and it is operational with suitably qualified medical staff and a visiting doctor.  The company has developed 02 nos. pond in kashiberia and in Govindpur village for rain water harvesting. Dress changing room at pond bathing site free medical checkup for local village etc.
viii.	All roads inside the plant shall be paved, vacuum cleaners shall be provided to clean roads and shop floors.	Most of the internal roads in the existing plant area are concreted/ paved and concreting of roads in project area is under active progress. Cleaning of the roads being done on regular basis. Some photographs of RCC roads are enclosed as Annexure-2
ix.	Water spray systems shall be included to control fugitive dust from RM stockpiles.	Water spraying facility has been provided in raw material handling area to control the fugitive dust emission. The raw material containing fine dust being covered with tarpaulin. Water spraying being done on Raw Material stockpiles.
x.	40% green belt shall be provided using 2500 trees per ha around the plant boundary.	Company has already achieved the target of 33% green belt development by plantation of 13500 plants of different indigenous species covering 5.38 Ha area against previous EC.  In the ongoing project area approx. 16900 trees have been planted so far covering 6.75 Ha land under the green belt/green cover development in and around the plant boundary. Some photographs are attached as Annexure-3
xi.	85-90% rolling shall be done as hot charged. Use of LDO shall be practiced in RHF whenever it is run. FO and Pulverized coal shall not be used.	It shall be complied as per direction.  The Rolling mill project is under implementation and yet to be completed.
xii.	Air cooled condensers shall be used.	Complied.  Air cooled condensers already installed.
xiii.	PM emission from the stacks shall be less than 30mg/Nm <sup>3</sup> .	It shall be complied with under implementation and to be implemented projects. Existing projects complies with emission standards as stipulated in previous to be

	onmental Clearance F. No.: J-11011/758/2009-IA	-In(1) trailed 03 Provember, 2020
S No	Conditions	Compliance Status
		West Bengal Pollution Control Board.  Latest stack monitoring reports of existing running project are attached as Annexure-4
xiv.	Energy conservation measures like use of VFD; Slip power recovery etc. shall be adopted.	VFD has already provided at strategic location like ID/FD fan/high power consuming motors etc. for slip power recovery and it shall also be adapted with upcoming implementation projects.
B. G	General conditions	
I.	Statutory compliance:	
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.	Noted. Bravo Sponge Iron Pvt. Limited has obtained CTOs from West Bengal Pollution Control Board (WBPCB) for existing operating units and after getting EC vide F. No.: J-11011/758/2009-IA-II(I) dated 05 <sup>th</sup> November, 2020, the CTE for proposed expansion projects. CTOs for 2x0.85 MTPA Pellet Plant & 12x4000Nm3 PGP and 1x350 TPD DRI along with 13.9 MW CPP has also been obtained from WBPCB. Copy of existing CTOs are attached as Annexure-5
II.	Air quality monitoring and preservation	
i.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Online Continuous Emission Monitoring System (OCEMS) have already been installed with stacks of DRI, AFBC Boiler & pellet plant stack and monitored data being remitted to CPCB & SPCB through online server.  Ambient Air Quality Monitoring (AAQM) being done periodically through NABL accredited agency.  Latest Ambient Air Quality Monitoring reports are attached as Annexure-6
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 in plant premises being monitored by NABL accredited laboratory on regular basis.  Last work zone monitoring report is attached as Annexure-7

S No	onmental Clearance F. No.: J-11011/758/2009-IA Conditions	Compliance Status
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.	Air Pollution Control (APC) systems have been installed like bag filters and ESPs for an effective control of dust emissions from vulnerable sources. Dust extraction system has been provided at dust generation points attached with bag filter units for cooler discharge, intermediate bin, product house, separation house and PCI unit. Fixed type water sprinklers are installed for dust suppression at raw material handling system along the conveyor, finished product house area, cooler discharge, along with Kiln axis and all other strategic locations to control the fugitive dust emissions.  BSIPL have deployed mobile water tankers for dust suppression on the road and minimizing fugitive emissions.
iv.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Functioning of bag filters being monitored by suitably skilled manpower and observations noticed being promptly attended. Leakage detection and mechanized bag cleaning facilities are/shall be provided for the bag filter units of upcoming project.
v.	Recycle and reuse of 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.	It is being complied.  Iron Ore fines collected from pollution control devices and ground level working platform being collected and used in pellet plant whereas coal fines used for captive power generations.
vi.	The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.	It is being/shall be complied.  Covered transportation of raw materials being done to prevent spillage and dust generation.
vii.	The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.	Proper fume extraction system has been provided attached with bag filter and stack.  Stack monitoring and work zone monitoring report is attached as Annexure-4 & 7
viii.	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	Raw Material stock piles are being covered for providing proper wind shelter. Water sprinkling also being done to prevent fugitive emission due to wind pressure.
ix.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	Suitable ventilation is provided for proper air circulation and adequate air change for all tunnels motor houses, Oil Cellars. It shall also be provided with under implementation and to be implemented projects.
ш	Water quality monitoring and preservation	aga Iro.

S No	onmental Clearance F. No.: J-11011/758/2009-IA Conditions	Compliance Status
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); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online services and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Recycling and reuse practice is being followed for return cooling water. Back wash/reject water from softener plant being collected in neutralization/homogenization tanks and reused for dust suppression & bed ash cooling after maintain the pH level.  Effluent generated beyond the above if any being treated in ETP and used for green belt development and sprinkling for dust suppression. Adequate effluent recycling systems have made to recycle and reuse the industrial waste water. No industrial effluent being discharged outside the factory premises.  Last Effluent monitoring report analyzed by NABI accredited laboratory is enclosed as Annexure-8.
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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Ground Water Quality has been monitored by NABL accredited laboratory. No ground water being extracted by the company, industrial effluent being administrated through plant drain network and recycle/reuse practice has been adapted, hence there is no scope of affecting the ground water level in the surrounding areas due to industrial activities.  Latest ground water monitoring report, sample taken from Mahuda village is attached as Annexure-9
iii.	Adhere to 'Zero Liquid Discharge'.	It is being complied.  Recycle and re-use practice has been adapted and no industrial effluent being discharged outside the factory premises.
iv.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	At present for the treatment of domestic sewage effluent septic tank followed by soak pit facility has been provided.  BSIPL has applied for expansion of existing project and Sewage Treatment Plant shall be installed at a suitable gradient with implementation of the projects.
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.	Stock piles are kept suitably covered with tarpaulin to check and prevent water contamination due to rain.  Concreted raw material yard with garland drain has been constructed to check the water pollution due to surface rur off. All such run off being collected in collection tank and reused in thickener of the pellet division.
IV.	Noise monitoring and prevention	
i.	Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard	It is being complied.  Latest Ambient & Work Zone Noise monitoring reports are enclosed as Annexure- 10 & 11.

S No	onmental Clearance F. No.: J-11011/758/2009-IA Conditions	Compliance Status
	shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	
V.	Energy Conservation measures	
i.	Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.	Energy conservation measure has already been adapted by providing LED lights in the offices to minimization of energy consumption. Solar light has been installed in the village Mahuda & Kashiberia and in plant also under CER activity.
VI.	Waste management	
i.	Used refractories shall be recycled as far as possible.	Noted. Efforts shall be done to recycle the refractories as far as possible.
ii.	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.	It is being complied.  The fly ash generated within the plant is provided to brick manufacturers for further utilization. Accordingly, company has made the agreement with various vendors for the same. Copies of the agreements are enclosed as Annexure-12
iii.	Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried and briquetted and reused in melting Furnaces.	Noted.  It shall be complied with implementation of rolling mill project. Rolling mill project is under implementation and yet to be completed.
iv.	Kitchen waste shall be composted or converted to biogas for further use.	It is being complied.  Kitchen waste being composted and used as manure for plantation.
VII.	Green Belt	
1.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.	Company has already achieved the target of 33% green belt development by plantation of 13500 plants of different indigenous species covering 5.38 Ha area against previous EC.  In the ongoing project area approx. 16900 trees have been planted so far covering 7.75 Ha land under the green belt/green cover development in and around the plant boundary. It is a continuous process and shall be continued for a good green cover of the project as per directions and guidelines.  Post plantation work for nourishment of the plants being done on regular basis.  Some photographs of plantation are attached as Annexure-3
ii.	The project proponent shall prepare GHG emissions inventory for the plant and shall	

S No	Conditions	Compliance Status
	submit the programme for reduction of the same including carbon sequestration including plantation.	
VIII.	Public hearing and Human health issues	
i.	Emergency preparedness plan based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Emergency preparedness plan based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan has been prepared based on different kind of operation process and is under execution. It shall also be implemented in forthcoming projects. Risk & disaster Management plan is attached as Annexure -14
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.	Personal Protection Equipment (PPE) like safety shoes, hand gloves, face shield, apron etc. being provided to the workmen deployed in hot work zone. Heat stress analysis has been carried out and attached as Annexure-15
iii.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	Occupational health surveillance program of the workers being under taken on regular basis and records are maintained.  Last health surveillance report attached as Annexure-16
IX.	Corporate Environment Responsibility	
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.	Environmental protection measures have been implemented for effective compliance recommended in EIA/EMP reports.  BSIPL has initiated to comply with socio-economic development activities in surrounding villages. As a part of CSR, we have developed health checkup center equipped with health checkup facilities and qualified medical staff, facilitating study materials to the school students (school bags and books, pencil box, water bottle etc.) of nearby villages.  A primary school with study classes from standard 1 to 5 class has been started in the village Kashberia. (Annexure-17).  Drinking water supply in nearby Mahuda village is maintained on regular basis. Under enterprise social commitment providing jobs to the local people and contribution towards social causes and renovation of village ponds etc.  A swing training center for woman empowerment has been started and the women from nearby villages are getting benefitted Annexure-18  Mobile water tankers are deployed on the roads for dust suppression. Water sprinkling being done on nearby village roads also.

	onmental Clearance F. No.: J-11011/758/2009-IA	
S No ii.	Conditions  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 sixmonthly report.	It is compiled and already submitted. BSIPL have implemented standard operating procedure to look into any infringement/ deviation/violation of environmental/forest/wildlife norms/ conditions.  BSIPL have also the Hierarchical system/ Administrative order to deal with environmental issues and compliance of EC conditions.  BSIPL have in placed reporting system for non-compliance/violation of environmental norms.  Board of Directors
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 report to the head of the organization.	An environmental cell has been set up under the supervision of Senior Executive to look after the day to day activities pertaining to environment & pollution control issues of the company.
X.	Miscellaneous	
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 as 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.	It has been complied Advertisement in newspaper has been done. Newspaper cuttings are attached as Annexure-19 Granted EC copy has been available as 'Environmental Orders' on the company website permanently <a href="http://shakambhariispat.com/assets/uploads/documents/BSIPLEC3_205-11-2020.pdf">http://shakambhariispat.com/assets/uploads/documents/BSIPLEC3_205-11-2020.pdf</a>
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	Complied.

S No	onmental Clearance F. No.: J-11011/758/2009-IA Conditions	Compliance Status
	display the same for 30 days from the date of receipt.	
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.	Compliance status being periodically uploaded on the
iv.	The project proponent shall monitor the criteria pollutants level namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>X</sub> (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.	It is being complied.  Monitoring of criteria pollutants being carried out for PM <sub>10</sub> , PM <sub>25</sub> , SO <sub>2</sub> , NO <sub>2</sub> and stack monitoring for PM, SO <sub>2</sub> , and NOx.  Latest Ambient Air Quality monitoring and stack monitoring reports are enclosed in Annexure-6 & 4
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.	It shall be complied.
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.	It is being complied on regular basis.  Previous year Environment Statement in Form-V has already been submitted to SPCB with a copy to MoEFCC Regional Office Kolkata and also uploaded on company's website, attached as Annexure-20 <a href="http://shakambhariispat.com/environmental-compliance">http://shakambhariispat.com/environmental-compliance</a>
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.	
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	The commitments made during public hearing, recommendations made in the EIA/EMP report and also

S No	onmental Clearance F. No.: J-11011/758/2009-IA- Conditions	Compliance Status
	presentation to the Expert Appraisal Committee.	Committee on different aspects has been implemented and are under implementation with the development of the ongoing projects.  The pollution control facilities like bag filters, ESPs, closed conveying system, dust extraction system on different transfer points, water sprinkling on roads and other dust prone areas for fugitive dust suppression, construction of health checkup center and operating with qualified medical staff, safety appliances to the workers, skill center for woman empowerment. drinking water arrangements for the villagers as per requirement, solar lighting system on Kashiberia and Mahuda village has been implemented.  Primary school and study classes from standard 1 to 5 class has been started in the village Kashberia.  Rain water harvesting pond has been developed for natural ground water recharge.
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)	It shall be followed.  No further expansion or modification will be undertaken without prior approval of the MoEF&CC.
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.
xi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted.
xii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	The company shall be abided with the stipulations and direction made by Hon'ble MoEFCC.
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.	
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.

Environmental Clearance F. No.: J-11011/758/2009-IA. II (I), Dated: 18th April, 2017		
SL	CONDITIONS	COMPLIANCE STATUS
A.	SPECIFIC CONDITIONS:	
1.	The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.	We have installed 24x7 OCEMS connected to CPCB portal to monitor the air emissions. Latest stack monitoring reports are attached as Annexure 4.
2.	In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant etc. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading handling and storage of raw materials etc.	We have already installed de-dusting systems like bag filters and ESPs for an effective control of dust emissions. Dust extraction system has been provided at the strategic points attached with bag filter units for cooler discharge, intermediate bin and product house and separation house. Fixed type water sprinklers for dust suppression at raw material handling system along the conveyor, finished product house area, cooler discharge, along with Kiln axis and all other dust prone locations.  BSIPL have deployed movable water tankers for dust suppression on the road and minimizing fugitive emissions.  Latest fugitive emissions (work Zone) monitoring report is attached as Annexure-7
3.	The COD level in the effluent should be maintained at the prescribed standard and the STP effluent is to be recycled within the premises.	Recycle and Reuse practice has been adapted by us and no effluent being discharged outside factory premises. For domestic effluent septic tank followed by soak pit facility has been provided. Effluent analysis report is enclosed as Annexure-8
4.	No effluent shall be discharged outside the plant premises and 'zero' discharge shall be adopted.	We are adapting recycle and reuse practice and no effluent being discharged outside the factory premises.
5.	Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control device viz. Electrostatic Precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.	Online Continuous Emission Monitoring System (OCEMS) have been installed at Stacks of DRI and CPP.  Air pollution control devices viz. ESPs and bag filters along with dust extraction and suppression system have been installed and efficiently operated to control emission level well within the norms.  Third party monitoring by NABL accredited laboratory being conducted periodically to evaluate the emission levels.  Latest stack monitoring report in enclosed as Annexure-4

6.	water from the rain water harvesting sources. Use of air-cooled condensers shall be explored and closed-circuit cooling system shall be provided to reduce water consumption and water	All possible attempts are made to ensure optimal use of water within the factory premises. There is rain water harvesting pond to harvest the rain water and reduce the water consumption. Effluent generated being used for ash handling, dust suppression and used for green belt development after treatment in ETP. Sludge generated being used for green belt development.
7.	roads shall be regularly cleaned with mechanical	The concreting of all internal roads with work area platform where heavy vehicle movement exercised has been completed. Some pictures of RCC road are attached as Annexure-2  Plantation of 33% greenbelt devlopment with tree density of 2500/ha has been completed by plantation of 13500 plants of different indigenous species covering 5.38 Ha maintaining the tree density approx. 2500/ha area against 16.30ha land this EC. Plantation has been done using indigenous species i. e. Mehagini, Segun, Pakur, Radhachura, Neem, Bakul, Shishu, Jarul, Arjuna, Sonajuri, Kadam, Pepal etc. along the plant periphery as well as inside the plant and we have achieved the desired target of plantation. Regular maintenance being done for sustainability of the plants. Some pictures are attached as Annexure-3
8.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th November 2009 shall be followed.	
9.	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R.414 (E) dated 30th May, 2008 and regularly monitored. Guidelines /Code of Practice issued by the CPCB shall be followed.	
10.	Regular monitoring of influent and effluent, surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.	Latest effluent, ground water & surface water analysis report is enclosed as Annexure-8, Annexure-9 &

11.	Proper handling, storage, utilization and disposal of the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid / hazardous waste shall be submitted to the Ministry's Regional Office, SPCB or CPCB.	Proper handling, storage, utilization and disposal of solid waste being done.  Analysis of toxic metal content in the solid waste being periodically carried out by approved agency. The monitoring report is enclosed as Annexure-23
12.	A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.	Dolochar generated from sponge iron plant is being utilized in AFBC boiler for captive power generation.  Fly ash is being utilized in fly ash brick manufacturing and provided to brick manufacturing units.  Induction Furnace slag and Bottom Ash being used for land filling and road construction work.
13.	as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick	All the fly ash generated within the plant is provided to brick manufacturers for further utilization. Accordingly, company has made the agreement with various vendors for the same. Copies of the agreements are enclosed as Annexure-12
14.	Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.	Complied.
15.	along the boundary of the plant and in all 33% of the area should be developed green by planting native and broad-leaved species in consultation with local DFO and local communities as per	We have achieved the target of 33% green belt development for extensive greenery in consultation with local DFO involving indigenous and broad-leaved species. Some plantation photos are enclosed as Annexure-3 Post plantation work for nourishment of the plants being done on regular basis.
16.	Public Hearing/public consultation meeting shall	It is/being complied and we are in the process of regular compliance of commitments made during public hearing i.e. up gradation of educational facilities, organizing health checkup camps for nearby villagers, abatement of pollution, providing necessary PPEs to the workers for safety etc.  BSIPL have dedicated HR department to take care of CSR activities.



17.	be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan as indicated by the	The amount earmarked is exclusively used for implementation of Enterprise Social Commitment. Our expenditures incurred towards facilitating study materials to the nearby school students, infrastructure development in the schools, plants distribution for encouragement of social forestry, drinking water supply and social causes etc.
18.	months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to being into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental	order to deal with environmental issues and compliance of
19.	The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.	Complied.  We have already installed the solar lighting system in strategic areas as directed.
20.	The project proponent shall provide for LED lights in their offices and residential areas.	Complied.
21.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	
B-GEN	ERAL CONDITIONS:	
1.	The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board and the State Government.	Being adhered as per the stipulation made by WBPCB and State Government.  Consent to Operate obtained from WBPCB is attached as Annexure-5
2.	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).	It shall be complied with.

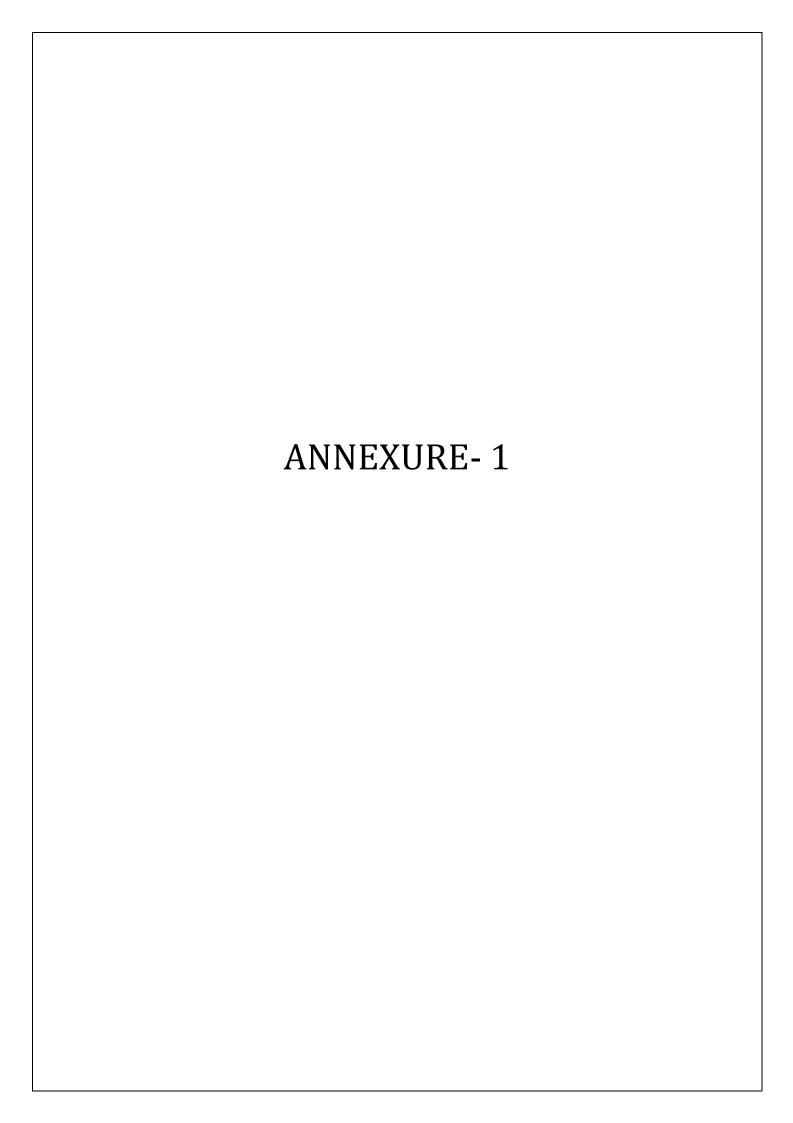
3.	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneshwar and the SPCB/CPCB once in six months.	Ambient Air Quality Monitoring being carried on four locations. Latest Ambient Air Quality monitoring reports for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>2</sub> and stack monitoring report is enclosed in Annexure-6 & Annexure-4
4.	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Being complied. Industrial Effluent is being treated in ETP and utilized for green belt development. No effluent industrial effluent being discharged outside the factory premises.  Latest analysis report of treated effluent is enclosed as Annexure-8
5.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB(A)) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Noise control measures has already been implemented to keep the noise level well within the 85 dB(A) and ambient noise level below 75 dB(A) (during day time) and 70 dB(A) (during night time).  Work Zone and Ambient Noise Monitoring report is enclosed as Annexure-11 & Annexure-10
6.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Occupational health surveillance program has been taken as a regular exercise for the employees and records are maintained. Health cards of some employees are enclosed as <b>Annexure-16</b>
7.	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Rain water harvesting structure has been developed within the plant to harvest the rain water.
8.	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 programmes, educational programmes, drinking water supply and health care etc.	Environmental protection measures have been implemented for effective compliance recommended in EIA/EMP reports.  We are regularly working for socio-economic development activities in surrounding villages. As a part of Enterprise Social Commitment, we are providing jobs to the local people and facilitating study materials to the school students (school bags and books, pencil box, water bottle etc.) of nearby villages, and contributing towards social causes etc.  A primary school with study classes from standard 1 to 5 class has been started in the village Kashberia. (Annexure-17).

9.	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEF&CC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneshwar. The funds so provided shall not be diverted for any other purpose	Requisite funds have been earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by MoEF& CC. Accordingly necessary facilities like ESPs, attached with AFBC boiler and WHRBs followed by silos, bag filters along with dust extraction system, water sprinkling system for fugitive dust suppression, water tankers for dust suppression on roads, green belt development and water recycling system etc. have been installed for abatement of the environmental pollution. Suitable manpower are engaged for an efficient operation, monitoring and maintenance of the devices installed.
10.	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied.
11.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF& CC at Bhubaneshwar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	It is being complied.  Compliance status report being periodically uploaded on company's website. <a href="http://shakambhariispat.com/environmental-compliance">http://shakambhariispat.com/environmental-compliance</a>
12.	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF& CC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar/CPCB/SPCB shall monitor the stipulated conditions.	Six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data being submitted to MoEF& CC and Pollution Control Board.  It is submitted in soft copy only as per direction of Hon'ble MoEFCC F. No. 106-12/EPE dtd. 11.05.2020



13.	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MoEF&CC at Bhubaneshwar by e-mail.	It is being complied.  The environment statement for Financial Year 2022-23 has been submitted to WBPCB with copy to Regional Office of the MOEF&CC and the report being uploaded on the company's website as per direction.
14.	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 SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF& CC) at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar.	Complied.
15.	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.	





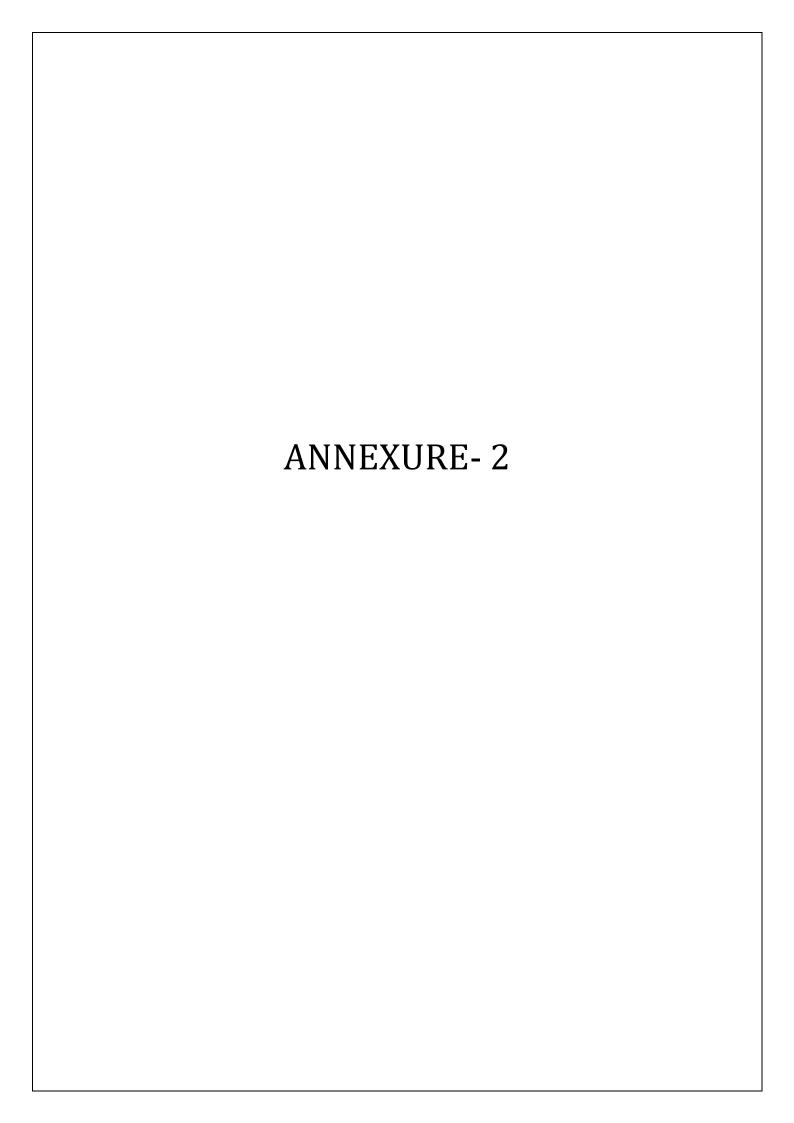
# FORM 10 [See rule 19 (1)]

# MANIFEST FOR HAZARDOUS AND OTHER WASTE

	1	Sender's na	ame and r	nailing ad	ddress		BRAVO SPONGE IRON PVT LTD
	1 .	(including	Phone	No.	and	e-mail)	Vill-Mohuda, PO-Rukni, PS-Para, Dist-
	1	(					Purulia, West Bengal, Pin-723145
	1						Email:bravosponge15@gmail.com
	2.	Sender's au	thorisation	n No.		:	
	3.	Manifest Do				:	9223008525 dt.30-08-2023
	4.	Transporter'			SS:		
	-	(including Pt					1
	5.	Type of vehice		aria o riic	/		Tanker
	6.	Transporter's		ion No		<del></del>	Talikei
	7.	Vehicle regis				<del></del>	WELLGROW
- 1						<u>:</u>	WB11C7049
- 1	8.	Receiver's na					CHOUDHARY HYDRO CARBON PVT
- 1		(including	Phone	No.	and	e-mail)	LTD, Jalan Industrial Complex, PO- Begri,
- 1	- 1	•					PS-Domjur, Howrah-711411, West
L							Bengal, (M)-9339740130
	9.	Receiver's	au	thorisatio	on	No.	
		:					
Г	10.	Waste descrip	otion			•	
Г		Total quantity				-	24.020 MT
		No. of Contain					ONE TANKER
	- 1	vo. or cornain	1010				ONE TANKER
$\vdash$	12. F	Physical form					
1	12.	-nysical form					SEMI LIQUID
$\vdash$	10/0						
	13. 5	Special handli	ng instru	ctions a	nd addi	tional	
		nformation					
1 1	14. S	ender's Certif	ficate				I hereby declare that the contents of
1	- 1						Al
1	- 1		120				
1							accurately described above by
			( )				proper shipping name and are
	1	<b>C</b>	h/a				categorised, packed, marked, and
	1	Bra	vo Spong	ge Iron F	VI. Lid	•	labelled, and are in all respects in
	1		XIC	١.			proper conditions for transport by
	1			200	Tor	2	road according to applicable national
	1		Autho	rized Si	ghaton		Covernment regulations
	Na	me and stam	n: (	Signatur	0:	Mar	government regulations.
	IVa	ille allu staili	ρ	Jigiriatur	<b>C</b> .	Mor	nth Day Year
							3 0 0 8 2 0 2 3
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16.	Rec	eiver's certific	cation for	receipt	of haz	ardous	and other waste
t	Nam	e and stamp	). C	Signatur	0'		
	···	o and stains	<i>J.</i>	nymatym	e. ,	/ Mo	nth Day Year
			}	(A)	1:0		3 0 0 8 2 0 2 3
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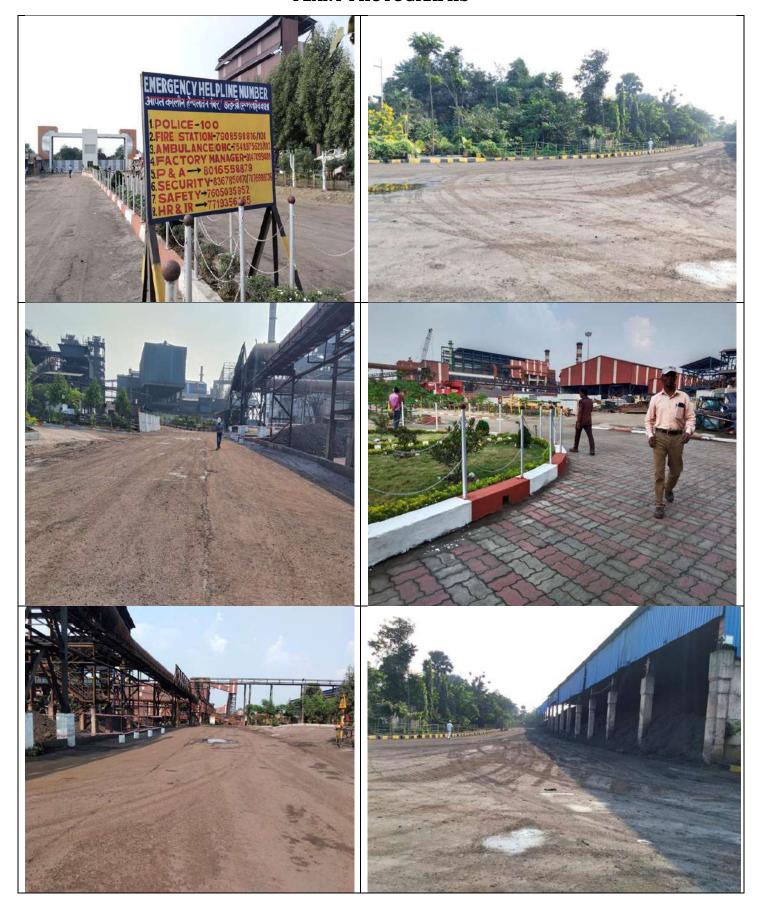
# MANIFEST FOR HAZARDOUS AND OTHER WASTE

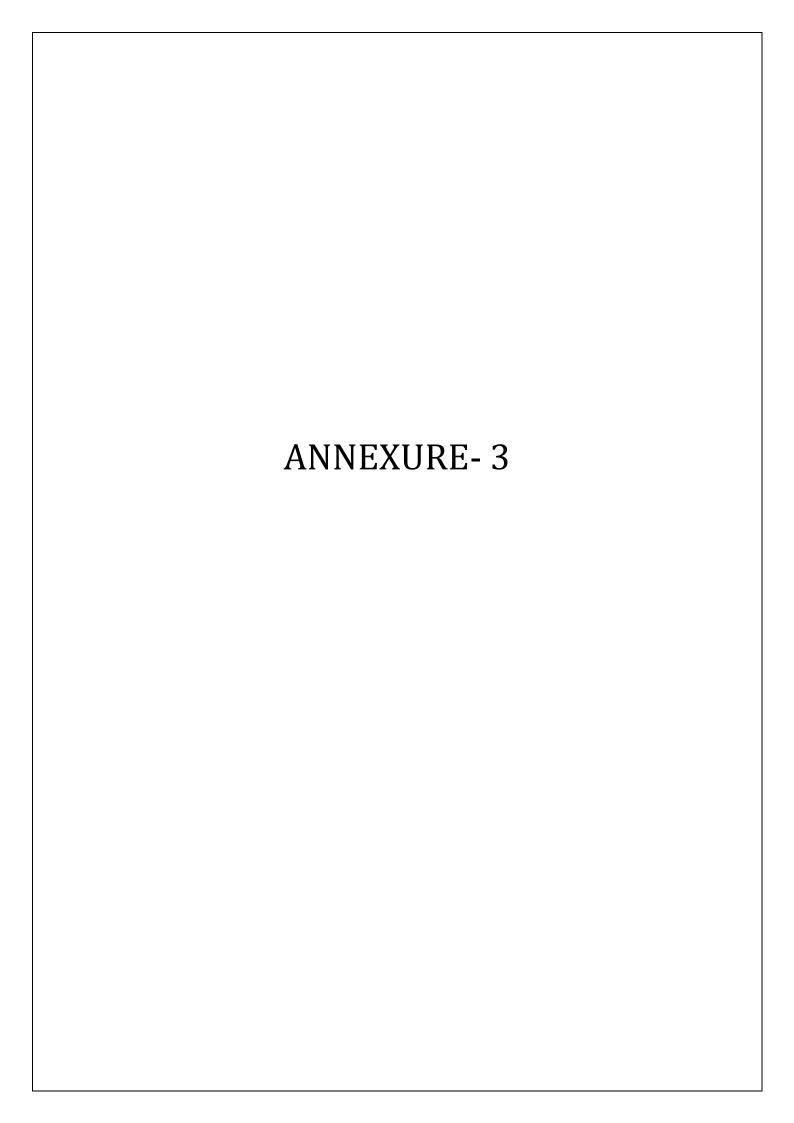
1	Sender's name and mailing and e-mail) (including Phone No and e-mail)	BRAVO SPONGE IRON PVT LTD Vill-Mohuda, PO-Rukni, PS-Para, Dist- Purulia, West Bengal, Pin-723145 Email bravosponge 15@gmail.com
2	Sender's authorisation No.	9223616653 dt 22-69-2023
3	Manifest Document No.	
4	Transporter's name and address.	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.
•	(including Phone No and e-mail)	The second secon
3	Type of vehicle	Tanker
6	Transporter's registration No	The second secon
7	Vehicle registration No.	WBTIC 7049 CHOUDHARY HYDRO CARBON PVT
8	Receiver's name and maning about	
9.	Receiver's authorisation No.	
10	Waste description	
	Total quantity	24.600 MT
	No. of Containers	ONE TANKER
12.	Physical form	SEMI LIQUID
13.	Special handling instructions and additional information	
14	Sender's Certificate  Bravo Sponge Iron Pvt. Ltd.	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 according to applicable national government regulations.
		lonth Day Year 22   09 2025
	Transporter acknowledgement of receipt of Wastes	
	Name and stamp: Signature: I	Month Day Year
-	Receiver's certification for receipt of hazardo	us and other waste
2	TO SECURE OF THE	Month Day Year



# **BRVO SPONGE IRON PVT. LIMITED**

# PLANT PHOTOGRAPHS

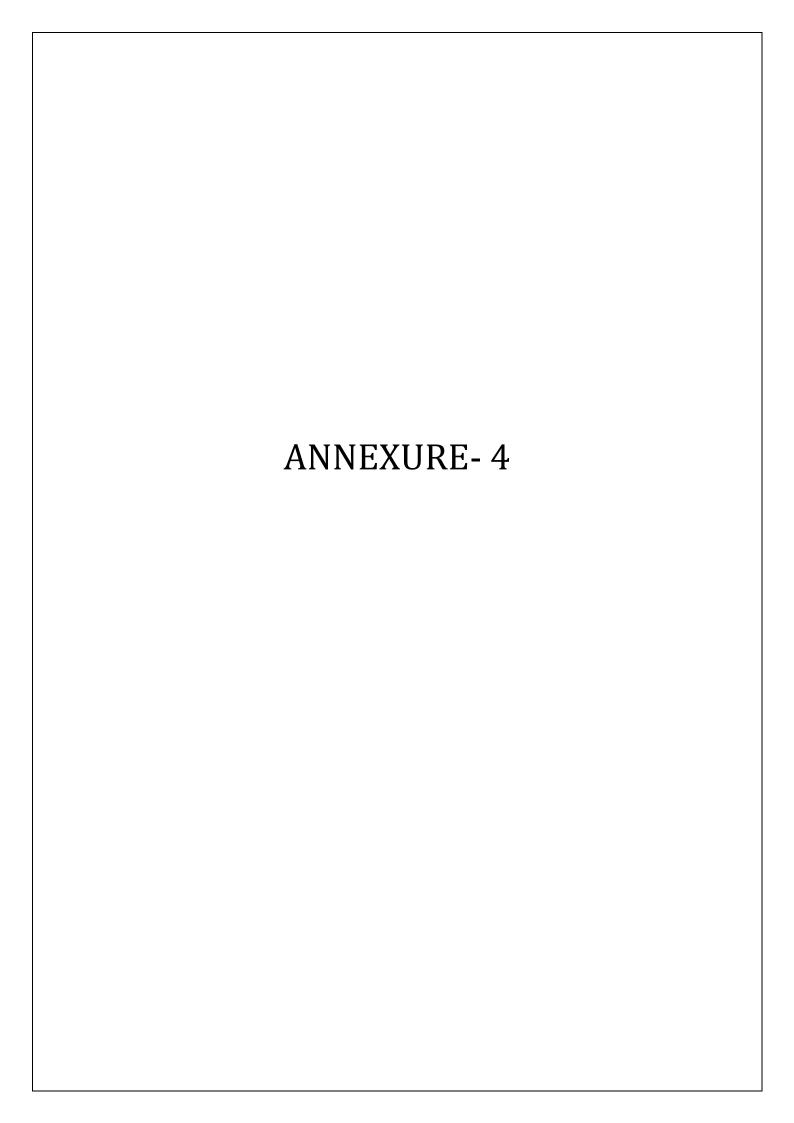




# **BRVO SPONGE IRON PVT. LIMITED**

GREEBELT DEVELOPMENT











#### FORMAT NO: ENV/FM/38

Name of the Industry	:	Bravo Sponge I	Т	Type of Industry					Steel & Power Unit					
Address	:	Vill. – Mohuda.	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia –								:	16.09.2023		
		723145	723145 Period of Analysis						:	18.09.2023 - 19.09.2023				
						Π	Date of	Iss	ue		:	21.09.202	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method a	nd :	Plan	:	No	T	ype	of Sample	:	Stack
Procedure														Emission
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/I	F	Report	No.	:	E	NV/	67/Sep./TR	(A)	/I/23-24

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln (No. 1 & 2) attached to common st	ack				
Shape of Stack	:	Circular	:	30.0			
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	1.9		
Capacity	:	No.1-100 TPD & No.2-95TPD	& No.2-95TPD Height of sampling port (mtr.) (from G.L.)				
Emission Due to	:	Oxidation of Coal & Reduction of Fe-Ore	The Edward of Bulletin				
Fuel Used	:	Coal	Permanent Platform & Ladde	er	:	Yes	
Working Fuel Consumption		5.12 MT/hr. (each Kiln)	Part Name				
Pollution Control Device	:	E.S.P with W.H.R.B			11		

#### **B. RESULTS**

SL.	PARAMETERS	UNIT	METHOD NO.		RESULTS
NO.		Manuscall			
1.	Flue Gas Temperature	оС	IS 11255 (Part 1)	:	156.0
2.	Barometric Pressure	mm of Hg.		:	756.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	10.45
4.	Quantity of Gas flow	Nm³/hr.	IS 11255 (Part III)	:	72200.60
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	:	571.42
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	:15	10.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	a) Concentration of Particulate	mg/Nm <sup>3</sup>	IS 11255 (Part - 1): 2019 & ASTM D 3685/D	:	14.87
	Matter (at 10.8% CO <sub>2</sub> )	100	3685M-98 (reapproved 2005) : Sec. 11		
	b) Concentration of Particulate	- 2	(Vol.11.07): 2017	:	16.52
	Matter (at 12% CO <sub>2</sub> )	3			

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattacharyya

**Authorised Signatory:** 

Hand

Dr. AJOY PAUL Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792891/ 25497490 = Fax : 033 25299141

Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792889

E-mail : info@envirocheck.in / envirocheck50@gmail.com = Website : www.envirocheck.in

Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi







#### FORMAT NO: ENV/FM/38

Name of the	:	Bravo Sponge I	Type of Industry				Steel & Power Unit					
Industry												
Address		Vill. – Mohuda.	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia –						:	16.09.2023		
		723145	.45					Analys	is :	18.09.2023 - 19.09.2023		
			Date of Issu							21.09.202	3	
Sampling Plan &	:	ENV/SOP/01	Deviation from	the Sampling Metho	d an	d Plan		No	Туре	of Sample	:	Stack
Procedure									1			Emission
Sample Condition	:	Sealed Samp	le ID No. : E	ENV/67/Sep./A/II		Report	No		ENV	/67/Sep./TR	(A)	/II/23-24

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln (No. 3 & 4) attached to common s	stack		
Shape of Stack	:	Circular	Height of Stack (mtr.)	:	30.0
<b>N</b>		110	(from G. L.)		1.00
Materials of	:	M.S.	Stack I.D. at sampling	:	1.80
Construction			point (mtr.)		
Capacity	1:	100 TPD (each kiln)	Height of sampling port	:	15.0
		and the second s	(mtr.) (from G.L.)		
Emission Due to	:	Oxidation of Coal & Reduction of Fe-Ore			
Fuel Used	:	Coal	Permanent Platform & Lado	ler	: Yes
Working Fuel	1:	5.12 MT/hr. (each Kiln)	Marie Walle Marie		-
Consumption					
Pollution Control Device	:	E.S.P with W.H.R.B	W Street But Street But I Vo		

#### **B. RESULTS**

SL.	PARAMETERS	UNIT	METHOD NO.		RESULTS
NO.		Manuall			
1.	Flue Gas Temperature	оС	IS 11255 (Part 1)	:	153.0
2.	Barometric Pressure	mm of Hg.		:	756.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	12.03
4.	Quantity of Gas flow	Nm³/hr.	IS 11255 (Part III)	:	83685.75
5.	Concentration of SO <sub>2</sub>	mg/Nm³	IS 11255 (Part 2) 1985 RA 2003	:	612.76
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	:15	11.4
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	a) Concentration of Particulate	mg/Nm <sup>3</sup>	IS 11255 (Part - 1): 2019 & ASTM D 3685/D	:	17.60
	Matter (at 11.4% CO <sub>2</sub> )	100	3685M-98 (reapproved 2005) : Sec. 11		
	b) Concentration of Particulate		(Vol.11.07): 2017	:	18.52
	Matter (at 12% CO <sub>2</sub> )	3			

Remarks

Reviewed By:

Indrani Blattacharyja

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical **Authorised Signatory:** 

Hand

Dr. AJOY PAUL Quality Manager

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Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792889

E-mail : info@envirocheck.in / envirocheck50@gmail.com = Website : www.envirocheck.in

Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi







#### FORMAT NO: ENV/FM/38

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lto	d.			Type of	Inc	lustry	1.11	:	Steel & Pov	wer	Unit	
Address	:	Vill. – Mohuda.	P.O. – Rukr	ni, P	P.S. – Para, Purulia –		Samplin	ıg I	ate		:	16.09.2023	3		
		723145					Period of Analysis				: 18.09.202			19.09.2023	
							Date of	Iss	ue			21.09.2023			
Sampling Plan &	:	ENV/SOP/01	Deviation	fro	om the Sampling Method ar	nc	d Plan	:	No	Тур	pe	of Sample	:	Stack	
Procedure										1	J.			Emission	
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/III		Report	No.	:	EN	V/	67/Sep./TR	(A)	/III/23-24	

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	AFBC Boiler				
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	45	.0
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	2.2	20
Capacity	:	20 TPH	Height of sampling port (mtr.) (from G.L.)	:	16	.0
Emission Due to	:	Oxidation of Coal & Reduction of Fe-Ore	THE REPORT OF THE PARTY OF			
Fuel Used	:	Coal&Dolochar	Permanent Platform & Ladder	•	:	Yes
Working Fuel Consumption	:	Coal – 110 TPD&Dolochar – 130 TPD	Action States			
Pollution Control Device	:	E.S.P with W.H.R.B				

#### **B. RESULTS**

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	оС	IS: 11255 (Part 1)	:	142.0
2.	Barometric Pressure	mm of Hg.		:	756.0
3.	Velocity of Gas flow	m/s	IS: 11255 (Part 3)	:	10.36
4.	Quantity of Gas flow	Nm³/hr.	IS: 11255 (Part III)	:	99113.41
5.	Concentration of SO <sub>2</sub> (at 6% O <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part 2) : 2019	:	577.49
6.	Concentration of NO <sub>x</sub> (at 6% O <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part 7): 2017 / ASTM D 1608-98,	Ė:	231.67
		S	Sec. 11 (Vol. 11.07) : 2017		
7.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 : 2019	:	7.8
8.	Concentration of O <sub>2</sub>	% (v/v)	EPA Method 3 : 2017	:	10.8
9.	Concentration of CO	%(v/v)	IS 13270 : 2019	:	<1.0
	a) Concentration of Particulate	mg/Nm <sup>3</sup>	IS 11255 (Part - 1): 2019 & ASTM D 3685/D	:	13.06
	Matter		3685M-98 (reapproved 2005) : Sec. 11		
	b) Concentration of Particulate Matter (at 6% CO <sub>2</sub> )	mg/Nm <sup>3</sup>	(Vol.11.07): 2017	:	19.20

Remarks : Result relates only to the sample tested.

Reviewed By:

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattacharyya

**Authorised Signatory:** 

Mark

Dr. AJOY PAUL Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792891/ 25497490 = Fax : 033 25299141

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi







#### FORMAT NO: ENV/FM/38

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.		Туре	of In	dustry		:	Steel & Po	wei	· Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, F	P.S. – Para, Purulia –	Sampl	ing l	Date		:	16.09.202	3	
		723145	Period of Analysis							:	18.09.2023 - 19.09.2023		
					-	Date o	f Iss	ue		:	21.09.202	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method ar	ıd Plan	:	No	T	ype	of Sample	:	Stack
Procedure													Emission
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/IV	Repor	t No		Е	NV/	67/Sep./TR	(A)	/IV/23-24

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Hood Over 2 nos. Induction Furnace (attack	ched to common stack)		
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	30.6
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	0.6
Capacity	:	15 MT/Charging (each furnace)	Height of sampling port (mtr.) (from G.L.)	:	
Emission Due to	:	Melting of Sponge Iron, Pig Iron Scraps etc			4
Fuel Used	:	Electricity Operated	Permanent Platform & Lado	ler	: Yes
Working Fuel Consumption	:	Nil	The second second		
Pollution Control Device	:	Bag Filter			

#### **B. RESULTS**

SL.	PARAMETERS	UNIT	METHOD NO.		RESULTS
NO.		S. Simondi.			
1.	Flue Gas Temperature	оС	IS 11255 (Part 1)	:	60.0
2.	Barometric Pressure	mm of Hg.		:	756.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	9.38
4.	Quantity of Gas flow	Nm³/hr.	IS 11255 (Part III)	ř:	8489.38
5.	Concentration of Particulate	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D	:	23.18
	Matter		3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017		

Remarks : Result relates only to the sample tested.

Reviewed By: Indraui Blattacheryya

INDRANI BHATTACHARYA
 Dy. Technical Manager, Chemical

**Authorised Signatory:** 

Hard

Dr. AJOY PAUL Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792891/ 25497490 = Fax : 033 25299141

Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata -700028 ■ Ph. 033 25792889

E-mail : info@envirocheck.in / envirocheck50@gmail.com = Website : www.envirocheck.in

Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi







#### FORMAT NO: ENV/FM/38

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.		Ту	ype of I	Ind	ustry		Stee	l & Po	wei	· Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, F	P.S. – Para, Purulia –	Sa	ampling	g Da	ate	:	16.0	9.202	3	
		723145	Period of Analysis						s :	18.09.2023 - 19.09.2023			19.09.2023	
						Da	ate of I	ate of Issue			21.0	9.202	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	ıd Pl	lan :	:	No	Туре	of Sar	nple	:	Stack
Procedure										10	7			Emission
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/V	Re	eport N	lo.		ENV	/67/Se	ep./TF	R(A)	/V/23-24

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Fe-Ore Pallet Formation Stack (No.1)		1,50				
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	50.0	)		
Materials of	:	RCC	Stack I.D. at sampling point	:	3.0			
Construction			(mtr.)					
Capacity	:	2500 MT/Day	Height of sampling port	:				
			(mtr.) (from G.L.)					
Emission Due to		Combustion of Producer Gas & PCI Coal						
Fuel Used	:	Producer Gas & PCI Coal	Permanent Platform & Ladde	er		Yes	7	
Working Fuel	:	2.78 MT/hr.	A STATE OF THE STA					
Consumption		The second secon						
Pollution Control Device	:	E.S.P	WESTERN STANFASTON					

#### **B. RESULTS**

SL.	PARAMETERS	UNIT	METHOD NO.		RESULTS
NO.		Witness All			
1.	Flue Gas Temperature	оС	IS 11255 (Part 1)	:	118.0
2.	Barometric Pressure	mm of Hg.		:	756.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	11.52
4.	Quantity of Gas flow	Nm³/hr.	IS 11255 (Part III)	:	222001.66
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	:	622.22
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	:::	9.2
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	Concentration of Particulate	mg/Nm <sup>3</sup>	IS 11255 (Part - 1): 2019 & ASTM D 3685/D	:	28.6
	Matter	THE STATE OF	3685M-98 (reapproved 2005) : Sec. 11		
			(Vol.11.07): 2017		

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattackaryya

**Authorised Signatory:** 

Hand

Dr. AJOY PAUL Quality Manager

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi







#### FORMAT NO: ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd. Type of Industry									-:-	Steel & Po	wei	Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, F	P.S. – Para, Purulia –		Sampli	ng I	ate		:	16.09.202	3	
		723145	Period of An							is	:	18.09.202	3 –	19.09.2023
							Date of Issue					21.09.202	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method a	and	l Plan	:	No	T	ype	of Sample	:	Stack
Procedure										d				Emission
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/VI		Report	No.	:	Е	NV/	67/Sep./TR	(A)	/VI/23-24

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Fe-Ore Pallet Formation Stack (No.2)		1,50				
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	50.0	)		
Materials of	:	RCC	Stack I.D. at sampling point	:	3.0			
Construction			(mtr.)					
Capacity	:	2500 MT/Day	Height of sampling port	:				
		and the same of th	(mtr.) (from G.L.)					
Emission Due to	:	Combustion of Producer Gas & PCI Coal						
Fuel Used	:	Producer Gas & PCI Coal	Permanent Platform & Ladde	er	:	Yes	7	
Working Fuel	:	2.78 MT/hr.	A DESCRIPTION OF THE PARTY OF T					
Consumption		The second secon	The second secon					
Pollution Control Device	:	E.S.P	W. Commission of the Commissio					

#### **B. RESULTS**

SL.	PARAMETERS	UNIT	METHOD NO.		RESULTS
NO.		1			
1.	Flue Gas Temperature	оС	IS 11255 (Part 1)		122.0
2.	Barometric Pressure	mm of Hg.		:	756.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	11.58
4.	Quantity of Gas flow	Nm³/hr.	IS 11255 (Part III)	:	220857.16
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	:	626.08
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	16	9.4
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	Concentration of Particulate	mg/Nm <sup>3</sup>	IS 11255 (Part - 1): 2019 & ASTM D 3685/D	:	28.7
	Matter	70,00	3685M-98 (reapproved 2005) : Sec. 11		
			(Vol.11.07): 2017		

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Bhattackaryya

**Authorised Signatory:** 

Hand

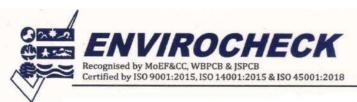
Dr. AJOY PAUL Quality Manager

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi







#### FORMAT NO: ENV/FM/38

Name of the Industry	:	Bravo Sponge I	Bravo Sponge Iron Pvt. Ltd.								Steel & Po	Steel & Power Unit		
Address	:	Vill. – Mohuda.	. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia –					Sampling Date			16.09.2023			
		723145	45				Period of Analysis :			: 18.09.2023 - 19.09.2023				
								Date of Issue			21.09.2023			
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	nd P	Plan :	:	No	Туре	of Sample	:	Stack	
Procedure													Emission	
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/VII	Re	eport N	lo.	:	ENV	/67/Sep./TI	R(A)	/VII/23-24	

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Cooler Discharge of Kiln 1,2,3,4		1,5				
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	15.0			
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	0.5			
Capacity	:		Height of sampling port (mtr.) (from G.L.)	:			ł	
Emission Due to	:	During Process	William Edward Control					
Fuel Used	:	Nil	Permanent Platform & Lad	der	:	Yes		
Working Fuel Consumption	:	N.A.	All the second					
Pollution Control Device	:	Bag Filter	and the state of t					

#### **B. RESULTS**

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	оС	IS 11255 (Part 1)	:	62.0
2.	Barometric Pressure	mm of Hg.		:	756.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	9.41
4.	Quantity of Gas flow	Nm³/hr.	IS 11255 (Part III)	:	5879.26
5.	Concentration of Particulate	mg/Nm³	IS 11255 (Part - 1): 2019 & ASTM D 3685/D	:	18.70
	Matter		3685M-98 (reapproved 2005) : Sec. 11		
			(Vol.11.07): 2017		
Remar	ks : Result relates only to the sai	nple tested.			

Reviewed By:

· INDRANI BHATTACHARYA

Indrani Bhattacharyya

Dy. Technical Manager, Chemical

**Authorised Signatory:** 

Dr. AJOY PAUL Quality Manager

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#### FORMAT NO: ENV/FM/38

Name of the Industry	:	Bravo Sponge I	Bravo Sponge Iron Pvt. Ltd.							11	:	Steel & Power Unit			
Address	:	Vill Mohuda.	– Mohuda. P.O. – Rukni, P.S. – Para, Purulia –					Sampling Date			:	16.09.2023			
		723145	Period of Analysis					is		18.09.2023 - 19.09.2023					
						Ī	Date of	Iss	ue			21.09.2023	3		
Sampling Plan &	:	ENV/SOP/01	Deviation	fro	m the Sampling Method ar	nc	d Plan	:	No	Ту	pe	of Sample		Stack	
Procedure			Ĭ							8	ď			Emission	
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/VIII		Report l	No.		EN	V/	67/Sep./TR	(A)	/VIII/23-24	

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln – 350 TPD					
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	45.0	)	
Materials of Construction	:	RCC	Stack I.D. at sampling point (mtr.)	:	2.0		
Capacity	:	350 TPD	Height of sampling port (mtr.) (from G.L.)	:			î
Emission Due to	:	Combustion of Coal & Reduction of Fe-Ore					91
Fuel Used	:	Coal	Permanent Platform & Ladde	er		Yes	
Working Fuel Consumption	:	101 MT/MT of DRI					
Pollution Control Device	:	E.S.P					

#### **B. RESULTS**

SL.	PARAMETERS	UNIT	METHOD NO.		RESULTS
NO.		Bernell	A STATE OF THE PARTY OF THE PAR		
1.	Flue Gas Temperature	оС	IS 11255 (Part 1)	:	194.0
2.	Barometric Pressure	mm of Hg.		:	756.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	12.59
4.	Quantity of Gas flow	Nm³/hr.	IS 11255 (Part III)	:	88326.22
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	:	751.02
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	. 17	11.4
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	a) Concentration of Particulate	mg/Nm <sup>3</sup>	IS 11255 (Part - 1): 2019 & ASTM D 3685/D	:	26.88
	Matter (at 11.4% CO <sub>2</sub> )		3685M-98 (reapproved 2005) : Sec. 11		
	b) Concentration of Particulate	mg/Nm <sup>3</sup>	(Vol.11.07) : 2017	:	28.29
	Matter (at 12% CO <sub>2</sub> )	-			
Remar	ks : Result relates only to the samp	le tested.			

Reviewed By:

INDRANI BHATTACHARYA
 Dy. Technical Manager, Chemical

Indrawi Blattacharyya

**Authorised Signatory:** 

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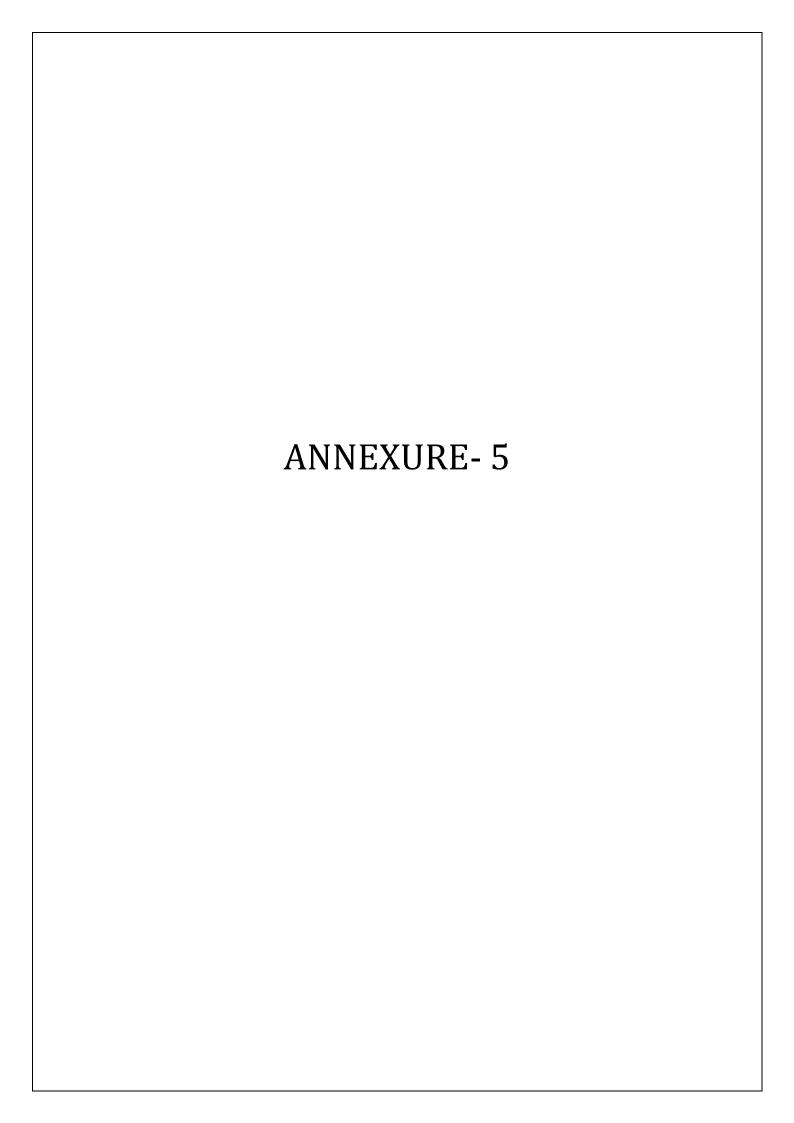
Dr. AJOY PAUL Quality Manager

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# " Expansion" WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan' Bldg. No. - 10A, Block - LA, Sector-III Salt Lake City, Kolkata-700 098



Consent Letter Number: C0132107

294-WPBA/Red(Pol)/cont(135)/64 Part-I Date: 08/12/2021.

# Consent to Operate

under

Section 25 & 26 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981

The West Be	ngal Pollution Conti	rol Board (hereinaft	ter referred to as	State Board) un	der the provisions	of Section 25 &
26 of the Water (Pre	evention and Control	of Pollution) Act, 1	1974, as amended	and Section 21	of the Air (Preven	tion and Contro
of Pollution) Act, 1	981, as amended an	d Rules and Orders	made thereunder	r, hereby grants	its consent to:	
1						

MLS. Bravo Sp	onge Iron f	Put. Ltd.	<u>na</u> ni		*******
	********************************		(Address of Regd. o	ffice/Head/Office/C	ity Office)
(hereinafter referred to as App	olicant) for its unit locate	ed at VIII * M	lahuda, P.O.	- Rukni,	
P.S Para, Di	et-Purulia	Pin-7	23145		
- 4			(Detailed add	ress of the manufacti	uring unit
for a period from Date					

to operate the industrial unit and to discharge liquid effluent and to emit gaseous effluent from the premises/land of the industrial unit, in accordance with the conditions as mentioned in the Annexure to this consent letter provided on any day at any instance the quantity and quality of liquid discharge and gaseous emission shall not exceed the permissible limit as specified in the Table I & II of this consent letter and in the Environmental (Protection) Act, 1986.

Breach of the conditions and / or failure to comply with the directions as set out in the Annexure shall render the applicant liable for prosecution under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

The State Board reserve the right to revoke, withdraw or make any reasonable variation / change falter the conditions of this consent letter giving one month's notice to the applicant.

For and on behalf of the State Board

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

So. Environmental Engineer W. B. Pollution Control Board

Operation & Execution Call

## ANNEXURE

Consent to MIS. Bravo Sponge Tron Put. Ltd.	
for its unit at Villi Mahuda, P.O Rukni, P.S Para, Dist - Purulia,	
Pin-723145	

#### Conditions:

01. This Consent is valid for the manufacture of :-

Sl. No.	Name of major products and by-products	Quantity manufactured per month
01	Iron Ore Pellet	8,50,000 MT/Year
02	Producer Gas.	48,000 Nm3/hr.
03	_	
04		
05	WEST BE	NGAL
06	TO SEE ALL SEE AS	No. of the Association of the Control of the Contro
07	THE RESERVE OF THE PERSON OF T	
08		
09		
10	Value Calendar	The second second
11		
12		

02.	The Applicant	shall remain	responsible fo	or quantity	and quality	of liquid	d effluent and	air emissions.
	4.4			The second secon	ALL DESCRIPTION ASSESSMENT AS	ALCOHOLD STATE OF THE PARTY OF		

- Daily discharge of domestic liquid effluent shall not exceed .....
- Daily discharge of mixed (industrial & domestic) liquid effluent shall not exceed ..... 05.
- ic) liquid effluent shall not exceed Nil KL. Septic tank after treetment in STP (place of discharge) The Applicant shall discharge liquid effluent to ....
- To bring into any altered or new outlet/outfall or to change the place of discharge, the Applicant shall have to inform the Board and obtain prior permission of the Board in this effect.
- 08. The Applicant shall provide comprehensive facility for treatment of industrial liquid waste and domestic liquid waste (sewage, sullage and liquid effluent generated from canteen), and operate and maintain the same continuously so that the quality of final effluent conforms to the Standard as given in Table-I in page 03.

08/12/21 (Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

> Sr. Environmental Engineer W. B. Pollution Control BoaroContinued...... Operation & Execution Cell

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Consent to MIS.	2,100	Pana	Action to the Alex		trade and also conserve.
Consent to minimum			1		
		Ph.			

for its unit at Vill: Mahuda, Po. - Rukni, P. S. - Para, Dist - Purulia,

#### Table-I

Outlet No.	Nature of effluent	Parameters	Standard	Frequency of effluent sampling
01 -	Domestic	рН	Between: 5'5 to 9.0	Yearly
-		Total Suspended Solids	Not to exceed: 100mg/1.	
000		Biochemical Oxygen Demand (3day at 27°C)	Not to exceed: 30 mg/1.	
81		Chemical Oxygen Demand	Not to exceed: 250 mg/1.	
		Oil & Grease	Not to exceed: 10 mg/1.	
131			1 10: 270	
		(Industrial effluent to be and recycled to mainta discharge as stipulated	in Zero Liquid in Ec conditions.)	
		ACCESS OF THE PARTY OF THE PART		

and Control of Pollution) Cess Act, 1977 and Rules made thereunder and the Applicant shall comply with the provisions of the said Act and Rules made thereunder.

Daily water consumption for the following purposes should not exceed :-

- Industrial cooling, spraying in mine pits and boiler feed water (Water used for gardening should be included in this category of use)
- Domestic purpose
- Processing whereby water gets polluted and the pollutants are easily biodegradable
- Processing whereby water gets polluted and the pollutants are not easily biodegradable

The Applicant shall regularly submit to the Board the Returns of Water Consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Bnv. Engr. / Asst. Env. Engr.)

Sr. Environmental Engineer W. B. Pollution Control Board continued...... Operation & Execution Cell

Consent to MIS. Bro	LYO Spons	ge Inon Put	. Ltd.	 ********
for its unit at Vill:				urulia,
Pin-723145				

- 11. The Applicant shall install suitable device for measuring the volume of water consumed for different purposes as mentioned above giving correct result to the satisfaction of the State Board.
- 12. All the stacks connected to various sources of emissions must be designated by numbers such as S-1, S-2, S-3, etc., and this must be painted/displayed to faciliate identification.
- 13. The *Applicant* shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the *Standard* as given in Table-II below:

Table-II

Stack No.	Stack height from	Stack attached to (sources and control system.	Volume Nm³/hr.	Velocity of gas emission	Concent	rations o	f param	eters not to exceed	Frequency of emission sampling
	G.I., (in mts.)	if any):	WES	m/sec	SPM (mg/Nm³)	CO (%v/v)	AL		
S-I	50m	Pellet Pla (1x0.85M	nt TPA)with	Audield	30				Half Year
S-2	42m	PCI Uni	/mouth	with	30				Half Year
S-3	16:5m	01x500KVA D.G. Set.			120	1			Yearly
S-4	17m	01x625KVA D.G. Set.			150				Yearly
S-5	۸,							n n	
S-6				=					
S-7									
S-8			1						
S-9									
S-10									1

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Sr. Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

Continued......

	/v (V)
Consent to MIS Brave Sponge Iron 1	Prt. Ital
	oni, P.SPara, Dist-Punulia,
P'15 ~ 723145	

- 14. The *Applicant* shall provide ports in the stack(s) and other necessary permanent facilities such as ladder, platform, etc. for monitoring/sampling the air emissions and the same shall be made available for inspection and use by the *State Board's* staff as well as *State Board's* authorised agencies.
- 15. The Applicant shall observe the following fuel consumption pattern:-

SI. No	Type of fuel	Quantity consumed per day	Fuel burning operation where the fuel is used
01	HSD		D.G. Set.
02			
03			
04	=		
05			

16. The Applicant shall maintain the generation and treatment/disposal of non-hazardous solid waste as specified below:-

Type of waste	Quantity	Treatment	Disposal
Pellet Plant Dust	3800 MT/mouth	and the same of	reused in pellet plant
Taz brom PGP	297 MT/month	DE CONTRACTOR OF THE PARTY OF T	reused as fuel DRI/

17. The Applicant shall take adequate measures for control of noise levels from its own sources within the premises within the limit given below:-

Time	Limit in dB(A) L <sub>eq</sub>
Day Time (06 a.m. to 09 p.m.)	75
Night Time (09 p.m. to 06 a.m.)	70

- 18. The Applicant shall at all times maintain good house-keeping, proper working order, and operate efficiently for control of pollution from all sources so as not to cause nuisance to surrounding areas/inhabitants and to achieve compliance with the terms and conditions of the consent.
- 19. The Applicant shall bring about at least 33% of the available open land under the green coverage / plantation.
- 20. The Applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the Applicant to maintain compliance with the terms and conditions of the consent. In absence of such an alternate electric power source, the Applicant shall stop, reduce or otherwise control production to abide by the terms and conditions of the Consent regarding pollution level.
- 21. The *Applicant* shall install a separate energy meter showing the consumption of energy for operation of pollution control devices.
- 22. The *Applicant* shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
- 23. The Applicant shall provide drainage system for conveying industrial and domestic liquid waste. Storm-water drain shall be kept separate from the drainage system meant for industrial and domestic liquid waste

(Member Secretary/Chief Engr./ Sr. Env. Engr./ Env. Engr./ Asst. Env. Engr.)

Sy. Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

Continued.....

Consent to M.S. Brava Spange Tron Pvt. Ltd.
for its unit at Vill, Mahuda, P.O Rukni, P.S Para, Dist - Purulia,
Pin-723145

- 24. The *Applicant* shall maintain a separate register showing consumption of chemicals used in pollution control systems.
- 26. The *Applicant* shall provide adequate and safe facility for collection of air, waste water and solid waste samples by the *State Board's* staff as well as *State Board's* authorised agencies.
- 27. The Applicant shall submit to the State Board by the 30th September of every year the Environmental Statement Report for the financial year ending 31st March of the current year in the prescribed form (Form -V) as required under the provisions of rule 14 of the Environment (Protection) [Second Amendment] rules, 1992.
- 28. The *Applicant* shall allow the Officers of the *State Board* to enter into the applicant's premises at any reasonable time to inspect the pollution control systems as well as monitoring and measuring devices in connection with prevention & control of pollution.
- 29. The Applicant shall maintain an Inspection Book in the factory premises which shall be made available to Officers & employees of the State Board for inspection, review and to write down any direction or observation as is deemed necessary during the inspection from time to time.
- 30. The Application shall furnish to the State Board all information in respect of quality, quantity, rate of discharge, place of discharge of liquid effluent and air emissions.
- 31. The Applicant shall maintain adequate number of qualified and trained personnel among his staff for proper maintenance and operation of the effluent treatment and / or emission control devices and for overall environment management of the industry.
- 32. The Applicant shall have to make registration for the use of groundwater if any, with Central Ground Water Authority
- 33. The Applicant shall intimate to the State Board immediately of any occurrence or apprehension of occurrence of discharge of any poisonous, noxious or pollutants in excess of quality as well as quality as mentioned earlier to any receiving water body/receiving system or to atmosphere owing to accident or other unforeseen incident/event including natural disaster. The Applicant Shall (i) take all steps adequate to prevent such accident discharge/release of poisonous, noxious or pollutants and to limit their consequences to persons and the environment, (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and mitigate the accidental release of poisonous noxious or pollutants to the environment.
- 34. The *Applicant* shall make an application to the *State Board* in the prescribed form for renewal of the consent at least 60 (sixty) days before the date of expiry of this Consent.
- 35. The *Applicant* shall not make any alternation/modification/expansion in the existing manufacturing process and equipment as well as the pollution control system without prior approval of the Board.

36. The *Applicant* shall comply with the conditions as laid down in the Manufacture, Storage and Import of hazardous Chemicals Rules, 1989 and Hazardous Wastes (Management & Handling) Rules, 1989.

Additional Conditions See Annexure.

(Member Secretary/Chief Engr./ Sr. EnvEbrigon Env. Engr.)
W. B. Pollution Control Board

Operation & Execution Cell

## Annexure to Consent Letter Number - CO132107

Additional Conditions issued to M/s. Bravo Sponge Iron Pvt. Ltd. at existing factory premises Vill- Mahuda, P.O-Rukni, P.S-Para, Dist-Purulia, Pin-723145.

- The unit shall abide by all other condition as mentioned in Environmental Clearance (EC) issued vide no. J-11011/758/2009-1A-II(I) dated 05.11.2020 and NOC(NO164516) issued vide memo no.349-2N-117/2007 (E)-Pt dated 10.11.2020 in favour of the expansion project.
- 2. The unit should comply all the conditions issued in earlier Consent to Operate.
- 3. The unit should obtain all the statutory licenses as applicable from other concerned Govt. Department.
- 4. The unit shall maintain the stringent stack emission standard -PM 30 mg/Nm3.
- The unit should install Continuous Ambient Air Quality Station(CAAQS) within 31<sup>st</sup> March,2022 failing which regulatory action will be initiated.
- 6. 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.
- 7. This consent may be revoked at any time on violation of environmental norms.
- 8. The unit shall submit a status of compliance of the conditions stipulated in EC.
- This consent to Operate is valid for operation of Pellet Plant (1x0.85 MTPA) & Producer Gas Plant (12x4000 Nm<sup>3</sup>/hr).

Sr. Environmental Engineer West Bengal Pollution Control Board

Sx. Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

## WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan' Bldg. No. - 10A, Block - LA, Sector-III Salt Lake City, Kolkata-700 098



Consent Letter Number: @0131807

Memo Number: 894 - WPBA/ Red (Pol)/Cont (135)/04

Date: 23/12/202/

## Consent to Operate

under

Section 25 & 26 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981

The West Bengal Pollution Control Board (hereinafter referred to as State Board) under the provisions of Section 25 & 26 of the Water (Prevention and Control of Pollution) Act, 1974, as amended and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended and Rules and Orders made thereunder, hereby grants its consent to:

M/s. Bravo Sponge Iron Fr. Ld.

MIS. 108 avo sponge Iron IVI. LA
to be account to it trained to the first in the first ind
(Address of Regd. office/Head/Office/City Office)
(hereinafter referred to as Applicant) for its unit located at vill - Mahuda, P.O Rukni,
Pos- Para, Dir - Purulia, pin- 723148
(Detailed address of the manufacturing unit)
for a period from 01.01.2022 to 31.12.2026
CONTROL VILLEGALIAN PURCHER PROPERTY

to operate the industrial unit and to discharge liquid effluent and to emit gaseous effluent from the premises/land of the industrial unit, in accordance with the conditions as mentioned in the Annexure to this consent letter provided on any day at any instance the quantity and quality of liquid discharge and gaseous emission shall not exceed the permissible limit as specified in the Table I & II of this consent letter and in the Environmental (Protection) Act, 1986.

Breach of the conditions and / or failure to comply with the directions as set out in the Annexure shall render the applicant liable for prosecution under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alter the conditions of this consent letter giving one month's notice to the applicant.



For and on behalf of the State Board 23, 12, 202 |

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

## ANNEXURE

Consent to M/s, Bravo Sponge Iron Prt.	Ud.
for its unit at will - Mahuda, Pro - Rukni,	Pos- Papa, dist-Purulia
Pin-723145	

## Conditions:

01. This Consent is valid for the manufacture of :-

Sl. No.	Name of major products and by-products	Quantity manufactured per month
01	Sponge Fron	
02	Sponge Iron M.S. Billet	11500 Ton/month 7200 Ton/month
03	Captive Powers	10 MW
04	Rose and the second	
05	WESTBER	IGAI
06	Resident Control of the Control of t	ICAL
07		
08		CONTROL CONTRO
09		
10		
11		
12	Comment of the second	

- O2. The Applicant shall remain responsible for quantity and quality of liquid effluent and air emissions.
  O3. Daily discharge of industrial liquid effluent shall not exceed
  O4. Daily discharge of domestic liquid effluent shall not exceed
  1'5
- 06. The Applicant shall discharge liquid effluent to septic tork to soak pet (place of discharge) through 01 (ore) nos. outlets / outfalls.
- 07. To bring into any altered or new outlet/outfall or to change the place of discharge, the Applicant shall have to inform the Board and obtain prior permission of the Board in this effect.
- 08. The Applicant shall provide comprehensive facility for treatment of industrial liquid waste and domestic liquid waste (sewage, sullage and liquid effluent generated from canteen), and operate and maintain the same continuously so that the quality of final effluent conforms to the Standard as given in Table-I in page 03.

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Consent to M/s. Br	avo Sponge	Ison Prt.	Ltd.		
for its unit at vill - 1	Maheida, P.	O, - Reckni,	PoS 0	gon dist	-Pupulia
Pin-723145					

## Table-I

Outlet No.	Nature of effluent	Parameters	Standard	Frequency of effluent sampling	
01	Domestic	pH	Between: 5'5 to 9.0	Yearly	
		Total Suspended Solids	Not to exceed: 100 mg/1.	Jearry	
1.		Biochemical Oxygen Demand (3day at 27°C)	Not to exceed: 30 mg/1.		
		Chemical Oxygen Demand	Not to exceed: 250 mg/1.		
		Oil & Grease	Not to exceed: 10 mg/1.		
			The state of the s		
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			The state of the s		
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			A STATE OF THE STA		

		Contract Contract Base	BE HAVE	437	
09.	and Control of Pollution	n) Cess Act, 1977 and Rules made and Rules made thereunder.	thereunder and	Category of the Water	er (Prevention mply with the
10.	Daily water consumption	n for the following purposes should	not exceed :-		
	<ul> <li>Industrial cooling, sp (Water used for garde</li> </ul>	raying in mine pits and boiler feed ening should be included in this cate	water → egory of use)	520°0	KL
•	Domestic purpose		→	15.0	KL
	<ul> <li>Processing whereby ware easily biodegradal</li> </ul>	water gets polluted and the pollutant	ts →	Nil	KL
	Processing whereby ware not easily biodegra	water gets polluted and the pollutant	:s →	Nil	KL

The Applicant shall regularly submit to the Board the Returns of Water Consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

(Member Secretary/Chief Engr./Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Consent to M/s. Bravo Sponge Iron Pvt. Ltd.

for its unit at Vill - Mahuda, P.O. - Rukmi, P.S. - Para, Dist - Purulia
Pin-723145

- 11. The Applicant shall install suitable device for measuring the volume of water consumed for different purposes as mentioned above giving correct result to the satisfaction of the State Board.
- 12. All the stacks connected to various sources of emissions must be designated by numbers such as S-1, S-2, S-3, etc., and this must be painted/displayed to faciliate identification.
- 13. The *Applicant* shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the *Standard* as given in Table-II below:

Table-II (see Annexure Stack Stack Stack attached Volume Velocity Concentrations of parameters not to exceed Frequency to (sources and Nm3/hr. No. height of emission of gas from emission control system. sampling G.I., if any): CO (in mts.) (%v/v) (mg/Nm3) m/sec S-I S-2 S-3 S-4 S-5 S-6 S-7 S-8 S-9 S-10

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

23 12.2021

Consent to M/S. Bravo Sponge Fron Prr. Ud.

for its unit at will - Mahuda Pro, - Rukni, P.S. - Para Dirt - Purulia
Pin-723145

- 14. The Applicant shall provide ports in the stack(s) and other necessary permanent facilities such as ladder, platform, etc. for monitoring/sampling the air emissions and the same shall be made available for inspection and use by the State Board's staff as well as State Board's authorised agencies.
- 15. The Applicant shall observe the following fuel consumption pattern:

Sl. No	Type of fuel	Quantity consumed per day	Fuel burning operation where the fuel is use				
01	Coal	11600 Ton/month	DRI Kiln (1,2,384)				
02	Coal fires	1100 Ton/menth	AFBC Boeles				
03	HSD		D.G. Set (2×500 KVA)				
04							
05	1	-					

16. The Applicant shall maintain the generation and treatment/disposal of non-hazardous solid waste as specified below:-

Type of waste	Quantity	Treatment	Disposal
Dalochar	2350 Ton/month		Tobe used in AFBC Bailer.
FLY Ash	5 700 Ton month	RESERVED AND STREET OF SECURITY	Brick/cernent manufacturing
	Diameter Control of the Control of t		Low land filling.
APCD Dust	600 Ton month	Manager Manage	To be used in Pellet Plant
EF Slag	970 Ton/ month	400 Carlo (1910)	To be used in Land filling & To

17. The Applicant shall take adequate measures for control of noise levels from its own sources within the premises within the limit given below:-

Time	Limit in dB(A) Leq
Day Time (06 a.m. to <b>90</b> p.m.)	65
Night Time (pp p.m. to 06 a.m.)	55

- 18. The Applicant shall at all times maintain good house-keeping, proper working order, and operate efficiently for control of pollution from all sources so as not to cause nuisance to surrounding areas/inhabitants and to achieve compliance with the terms and conditions of the consent.
- 19. The Applicant shall bring about at least 33% of the available open land under the green coverage / plantation.
- 20. The Applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the Applicant to maintain compliance with the terms and conditions of the consent. In absence of such an alternate electric power source, the Applicant shall stop, reduce or otherwise control production to abide by the terms and conditions of the Consent regarding pollution level.
- 21. The *Applicant* shall install a separate energy meter showing the consumption of energy for operation of pollution control devices.
- 22. The Applicant shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
- 23. The Applicant shall provide drainage system for conveying industrial and domestic liquid waste. Storm-water drain shall be kept separate from the drainage system meant for industrial and domestic liquid waste 23.12.202

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)



Consent to MIS. Bravo Sponge From Prt. Utd.

for its unit at vill - Maheda, P.O. - Reckni, Prs. - Para Dist - Purulia
Pin - 723145

- 24. The *Applicant* shall maintain a separate register showing consumption of chemicals used in pollution control systems.
- 26. The *Applicant* shall provide adequate and safe facility for collection of air, waste water and solid waste samples by the *State Board's* staff as well as *State Board's* authorised agencies.
- 27. The Applicant shall submit to the State Board by the 30th September of every year the Environmental Statement Report for the financial year ending 31st March of the current year in the prescribed form (Form -V) as required under the provisions of rule 14 of the Environment (Protection) [Second Amendment] rules, 1992.
- 28. The Applicant shall allow the Officers of the State Board to enter into the applicant's premises at any reasonable time to inspect the pollution control systems as well as monitoring and measuring devices in connection with prevention & control of pollution.
- 29. The Applicant shall maintain an Inspection Book in the factory premises which shall be made available to Officers & employees of the State Board for inspection, review and to write down any direction or observation as is deemed necessary during the inspection from time to time.
- 30. The Application shall furnish to the State Board all information in respect of quality, quantity, rate of discharge, place of discharge of liquid effluent and air emissions.
- 31. The Applicant shall maintain adequate number of qualified and trained personnel among his staff for proper maintenance and operation of the effluent treatment and / or emission control devices and for overall environment management of the industry.
- 32. The Applicant shall have to make registration for the use of groundwater if any, with Central Ground Water Authority.
- 33. The Applicant shall intimate to the State Board immediately of any occurrence or apprehension of occurrence of discharge of any poisonous, noxious or pollutants in excess of quality as well as quality as mentioned earlier to any receiving water body/receiving system or to atmosphere owing to accident or other unforeseen incident/event including natural disaster. The Applicant Shall (i) take all steps adequate to prevent such accident discharge/release of poisonous, noxious or pollutants and to limit their consequences to persons and the environment, (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and mitigate the accidental release of poisonous noxious or pollutants to the environment.
- 34. The Applicant shall make an application to the State Board in the prescribed form for renewal of the consent at least 1260 (sixty) days before the date of expiry of this Consent.
- 35. The *Applicant* shall not make any alternation/modification/expansion in the existing manufacturing process and equipment as well as the pollution control system without prior approval of the Board.
- 36. The Applicant shall comply with the conditions as laid down in the Manufacture, Storage and Import of hazardous Chemicals Rules, 1989 and Hazardous Wastes (Management & Handling) Rules, 1989.

  1. This consert Letter may be revoked at any time on the ground at valid public complaint against Additional Conditions water, Are on Noise Pollution against your unit or incree of my Environment Hazards created by your unit. He Environmental clearance issued by MOEF& ce ribers, 1/1011/2. Conditions. Inentioned in the Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by MOEF& ce ribers, 1/1011/2. The Environmental clearance issued by

## Annexure-I

Annexure to Consent Letter Number: CO/3/807

Additional conditions issued to M/s. Brave Sponge I

State	from G.L. (in	Stack attached to (sources and control system, if		Volume Velocity of gas Concentration	Velocity of gas Concentration of parameters not to	Concentration of parameters not to exceed			T -
No.	mtr)	any)	(Nm³/hr)	emission (m/sec)	PM (mg/Nm³)	CO (% v/v)	-	exceed	Frequency of emission
1	30.0	DRI Kiln 1 & 2 of capacity 100 TPD & 95 TPD with WHRB 1&2 provided with 3 field ESP and connected with common stack	я		100	1.0		_	sampling Quarterly
2	30.0	DRI Kiln 3 & 4 of capacity 100 TPD each with WHRB 3&4 provided with 3 field ESP and connected with common stack		-	50	1.0	-	-	Quarterly
3	45.0	AFBC Boiler (1 x 20 TPH) provided with 3 field ESP and separate stack	-	_	50	1.0			
4	30.0	Cooler Discharge (Common with DRI Kiln 1 & 2 provided with Bag filter and stack)		-	100	1.0	-	-	Quarterly
5	30.0	Cooler Discharge (Common with DRI Kiln 3 & 4 provided with Bag filter and stack)		-	50	- 1	7	•	Quarterly
6	30.0	Product House (Common with DRI Kiln 1 & 2 provided with Bag filter and stack)			100		-	-	Quarterly
7	30.0	Product House (Common with DRI Kiln 3 & 4 provided with Bag filter and stack)	1 -		50		-	-	Quarterly
8	30.0	Intermediate Bin (Common with DRI Kiln 1,2,3 & 4) provided with Bag filter and separate stack	1.200		50	-	-	-	Quarterly
9	30.0	Coal screening (Common with DRI Kiln 1,2,3 & 4) provided with Bag filter and separate stack	-			-		-	Quarterly
10	30.0	Iron Ore screening(Common with DRI Kiln 1,2,3 & 4) provided with Bag filter and separate stack	_		50	-	-	-	Quarterly
11	30.0	Induction Furnaces ( 2 x 12 Ton/Heat each) provided with individual suction hood & spark			50	-	-		Quarterly
	30.0	arrestor followed by common Bag filter and stack for all Induction Furnaces & SEAFs.	- *		50		te =		Quarterly
12	9.0	1 x 500 KVA D.G. Set							
13	9.0	1 x 500 KVA D.G. Set	-	-	150	1.0	-		Yearly
			-	-	150	1.0			Yearly

Senior Environmental Engineer West Bengal Pollution Control Board Asansol Regional Office

The State Board reserve the right to revoke, withdraw or make

# WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan' Bldg. No. - 10A, Block - LA, Sector-III Salt Lake City, Kolkata-700 098



"Expansion"

Consent Letter Number: C0141013

Memo Number: 491 - WPBA/Red(Pr)/con+(135)/04 part-IT

## Consent to Operate

under

Section 25 & 26 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981

The West Bengal Pollution Control Board (hereinafter referred to as State Board) under the provisions of Section 25 &

of Pollution) Act, 1981, as amended and Rules and Orders made thereunder, hereby grants its consent to:
Mls. Bravo Sponge Iron Prt 110
(hereinafter referred to as Applicant) for its unit located at VIII - Mahuda, P.O Rukni,
P.S Para, Dist Purulia, Pin-723145
(Detailed address of the manufacturing unit
for a period from date of 188ue to 31/12/2026
to operate the industrial unit and to discharge liquid effluent and to emit gaseous effluent from the premises/land of the industrial unit, in accordance with the conditions as mentioned in the Annexure to this consent letter provided on any day at an instance the quantity and quality of liquid discharge and gaseous emission shall not exceed the permissible limit as specified in the Table I & II of this consent letter and in the Environmental (Protection) Act, 1986.
Breach of the conditions and / or failure to comply with the directions as set out in the Annexure shall render the applicant liable for prosecution under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Ai (Prevention and Control of Pollution) Act, 1981.
The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alter the conditions

this consent letter giving one month's notice to the applicant.

For and on behalf of the State Board

(Member Secretary/Chief Engr./ Sr. Env. Engr./ Env. Engr./ Asst. Env. Engr.)

W. B. Pollution Control Board Operation & Execution Cell

#### ANNEXURE

Consent to Mls. Bravo Sponge Inon Put. Ltd.
for its unit at Vill- Mahuda, P.O Rukni, P.S Para, Dist - Punulia,
Pin-723145

#### Conditions:

01. This Consent is valid for the manufacture of :-

Sl. No.	Name of major products and by-products	Quantity manufactured per month
01	Sponge Iron	350 Metric Tonnes/Day
02	Sponge Inon Inon One Pellet	0.85 MTPA
03	Captive Power	13.9 MW
04	ANAMORESESSION	
05	WESTBE	NGAL
06		
07	The second secon	NAME OF STREET
08		
09		
10		
11	Vital Resident	
12	VIII VIII IN	

02.	The Applicant shall remain responsible for quantity and quality of liquid effluent and air emissions.	

- 06. The Applicant shall discharge liquid effluent to Septic tank/ Soak Pit (place of discharge) through 01 (out) nos. outlets / outfalls.
- 07. To bring into any altered or new outlet/outfall or to change the place of discharge, the Applicant shall have to inform the Board and obtain prior permission of the Board in this effect.
- 08. The Applicant shall provide comprehensive facility for treatment of industrial liquid waste and domestic liquid waste (sewage, sullage and liquid effluent generated from canteen), and operate and maintain the same continuously so that the quality of final effluent conforms to the Standard as given in Table-I in page 03.

22/12/2022

(Member Secretary/Chief Engr./Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Environmental Engineer

W. B. Pollution Control Board.

Operation & Execution Cell

Consent to MLS. Bravo Sponge Iron Put. Ltd.	
for its unit at Vill-Mahuda, P.ORukni, P.SPara, DistPurulio	4
Pin-723145	1

Table-l

Outlet No.	Nature of effluent	Parameters	Standard	Frequency of effluent sampling		
01	Domestic	pH	Between: 5.5 to 9.0	Yearly		
		Total Suspended Solids	Not to exceed: 100 mg/1.	100,09		
3.		Biochemical Oxygen Demand (3day at 27°C)	Not to exceed: 30 mg/1.			
		Chemical Oxygen Demand	Not to exceed: 250mg/1.			
		Oil & Grease	Not to exceed: 10 mg/1.			
		· CONTRACTOR OF THE PARTY OF TH	10			
		ASSESSED TO SELECT AND ADDRESS OF THE PARTY	Marine San Control			
				•		
		WESTBEN	$(-\Delta)$			
		IVEOIDEI	O/LL			
		and the second s	kalanek u salasah			
				-		
		Carried Builds	The state of the s			
		CONTRACTOR OF THE PARTY OF THE				
		VERNAL VERNAL REPORT	WI RESIDENT			

- 10. Daily water consumption for the following purposes should not exceed :-
  - Industrial cooling, spraying in mine pits and boiler feed water → 882.
     (Water used for gardening should be included in this category of use)
  - Domestic purpose → \_\_\_\_\_KI

The Applicant shall regularly submit to the Board the Returns of Water Consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Environmental Engineer
W. B. Poliution Control Board
Operation & Execution Cell

Consent to Mls. Bravo Sponge Inon Pvt. Ltd.

for its unit at Vill. - Mahuda, P.O. - Rukni, P.S. - Para, Dist. - Punulia,
Pin 723145

- 11. The Applicant shall install suitable device for measuring the volume of water consumed for different purposes as mentioned above giving correct result to the satisfaction of the State Board.
- 12. All the stacks connected to various sources of emissions must be designated by numbers such as S-1, S-2, S-3, etc., and this must be painted/displayed to faciliate identification.
- 13. The Applicant shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the Standard as given in Table-II below: See Annexure—I

Table-II

Stack No.	Stack height from	Stack attached to (sources and control system.	Volume Nm³/hr.	Velocity of gas emission	Concentrations of parameters not to exceed					Frequency of emission sampling
	G.I., (in mts.)	if any):	WES	m/sec	SPM (mg/Nm³)	CO (%v/v)	AL			
S-I										
S-2										1
S-3										
S-4										
S-5									8 8	
S-6		3								
S-7										
S-8			2							
S-9		2.0								
S-10										

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Call

Consent to Mls. Bravo Sponge Iron Prt. Ltd.
for its unit at Vill - Mahuda, P.O. - Rukni, P.S. - Para, Dist. - Purulia,
Pin -723145

- 14. The *Applicant* shall provide ports in the stack(s) and other necessary permanent facilities such as ladder, platform, etc. for monitoring/sampling the air emissions and the same shall be made available for inspection and use by the *State Board's* staff as well as *State Board's* authorised agencies.
- 15. The Applicant shall observe the following fuel consumption pattern:-

Sl. No	Type of fuel	Quantity consumed per day	Fuel burning operation where the fuel is used
01	HSD	1	D. G. Set
02	Coal	13247 Ton Mouth	DRI Kiln & Pellet Plaw
03			
04	+		
05		And the last of th	

16. The Applicant shall maintain the generation and treatment/disposal of non-hazardous solid waste as specified below:-

Type of waste	Quantity	Treatment	Disposal
Dolochar	2100 Metric Tonnes/A	Iduin	Used in CPP
Fly Ash	USS Metric Tonnes	Mouth - Brick/C	ement ranufacturing unit
Aped Dust	1050 Metric Tonnes/M	ronta - To be use	I in Pellet Plant.

17. The Applicant shall take adequate measures for control of noise levels from its own sources within the premises within the limit given below:-

Time	Limit in dB(A) Leq
Day Time (06 a.m. to 09 p.m.)	65
Night Time (09 p.m. to 06 a.m.)	\$5

- 18. The Applicant shall at all times maintain good house-keeping, proper working order, and operate efficiently for control of pollution from all sources so as not to cause nuisance to surrounding areas/inhabitants and to achieve compliance with the terms and conditions of the consent.
- 19. The Applicant shall bring about at least 33% of the available open land under the green coverage / plantation.
- 20. The Applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the Applicant to maintain compliance with the terms and conditions of the consent. In absence of such an alternate electric power source, the Applicant shall stop, reduce or otherwise control production to abide by the terms and conditions of the Consent regarding pollution level.
- 21. The *Applicant* shall install a separate energy meter showing the consumption of energy for operation of pollution control devices.
- 22. The *Applicant* shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
- 23. The Applicant shall provide drainage system for conveying industrial and domestic liquid waste. Storm-water drain shall be kept separate from the drainage system meant for industrial and domestic liquid waste

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Environmental Engineer

W. B. Pollution Control Board

Operation & Execution Cellued......

Consent to MIS. Bravo Sponge Inon Put. Ltd. for its unit at Vill-Mahula, P.O.-Rukni, P.S.-Para, Dist. - Purulia,

- 24. The Applicant shall maintain a separate register showing consumption of chemicals used in pollution control sys-
- from the laboratory recognised of the West Bengal Pollution Control Board and ensure that they conform to the limits stipulated. Test reports shall be sent to the Board.
- 26. The Applicant shall provide adequate and safe facility for collection of air, waste water and solid waste samples by the State Board's staff as well as State Board's authorised agencies.
- 27. The Applicant shall submit to the State Board by the 30th September of every year the Environmental Statement Report for the financial year ending 31st March of the current year in the prescribed form (Form -V) as required under the provisions of rule 14 of the Environment (Protection) [Second Amendment] rules, 1992.
- 28. The Applicant shall allow the Officers of the State Board to enter into the applicant's premises at any reasonable time to inspect the pollution control systems as well as monitoring and measuring devices in connection with prevention & control of pollution.
- 29. The Applicant shall maintain an Inspection Book in the factory premises which shall be made available to Officers & employees of the State Board for inspection, review and to write down any direction or observation as is deemed necessary during the inspection from time to time.
- 30. The Application shall furnish to the State Board all information in respect of quality, quantity, rate of discharge, place of discharge of liquid effluent and air emissions.
- 31. The Applicant shall maintain adequate number of qualified and trained personnel among his staff for proper maintenance and operation of the effluent treatment and / or emission control devices and for overall environment management of the industry.
- 32. The Applicant shall have to make registration for the use of groundwater if any, with Central Ground Water Author-
- 33. The Applicant shall intimate to the State Board immediately of any occurrence or apprehension of occurrence of discharge of any poisonous, noxious or pollutants in excess of quality as well as quality as mentioned earlier to any receiving water body/receiving system or to atmosphere owing to accident or other unforeseen incident/event including natural disaster. The Applicant Shall (i) take all steps adequate to prevent such accident discharge/release of poisonous, noxious or pollutants and to limit their consequences to persons and the environment, (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and mitigate the accidental release of poisonous noxious or pollutants to the environment.
- 34. The Applicant shall make an application to the State Board in the prescribed form for renewal of the consent at least 60 (sixty) days before the date of expiry of this Consent.
- 35. The Applicant shall not make any alternation/modification/expansion in the existing manufacturing process and equipment as well as the pollution control system without prior approval of the Board.
- The Applicant shall comply with the conditions as laid down in the Manufacture, Storage and Import of hazardous Chemicals Rules, 1989 and Hazardous Wastes (Management & Handling) Rules, 1989.

Additional Conditions See Annexure - II

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)
W. B. Polketon Compet Love Engr.)

Operation & Execution Cell

Annexure - I

Annexure to Consent Letter Number – CO141013

Additional Conditions issued to M/s. Bravo Sponge Iron Pvt. Ltd. at existing factory premises – Vill. Mahuda, P.O-Rukni, P.S-Para, Dist- Purulia, Pin -723145

Stack No.		₽	2	ω	4	5
Stack height from G.L (in mts.)		72.0 m	30.0 m	30.0 m	30.0 m	30.0 m
Stack attached to (sources and control system, if any)		DRI Kiln of capacity 350TPD-1(one) no. with WHRB-1(one) no. provided with 4- field ESP and separate stack	Cooler Discharge & Intermediate Bin provided with bag filter and separate stack	Day Bin & Iron Circuit provided with bag filter and separate stack	Coal circuit provided with bag filter and separate stack	Product Storage Bunker provided with bag filter and separate stack
Volume Nm³/hr		t,	. (6)	ij	1	,
Velocity of gas emission m/sec		r	34.1	1	κ	
Concentratio	PM ( mg/Nm³)	50	50	50	50	50
Concentration of parameters not to exceed	CO (% v/v)	¢.	,	X	,	,
xceed Frequency of emission sampling		Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

Exvironmental Engineer
W. B. Pollution Control Board
Operation & Exacutton Call 12 2022

Page 1 of 2

iosat 0	900			15	7	St
00	7	o			No.	Stack
14.0 m	12.5 m	50.0 m		(in mts.)	height from G.L	Stack
D.G.Set – 01x1500 KVA	D.G.Set – 01x1010 KVA	01x0.85 MTPA Pellet Plant provided with 4-field ESP and separate stack				Stack attached to (sources and control system, if any)
Ľ	1	r.			Nm"/hr	Volume
Ä	,	r		m/sec	gas	Velocity of
150	150	50	( mg/Nm³)			Concentration
ν	,		CO (% v/v)			Concentration of parameters not to exceed
						ot to exceed
Yearly	Yearly	Quarterly			emission sampling	Frequency of

Environmental Engineer

West Bengal Pollution Control Board

Environmental Engineer

W. B. Pollution Control Board

Operation & Execution Cell

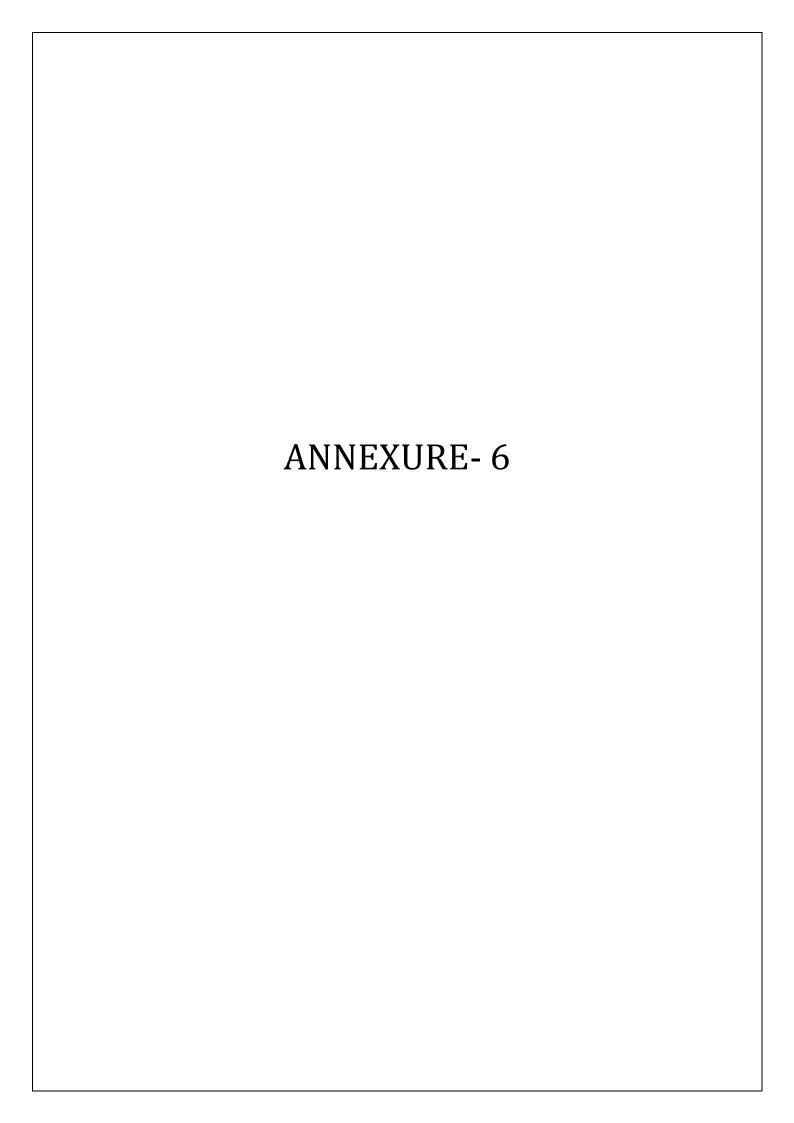
Annexure-II to Consent Letter Number - CO141013

Additional Conditions issued to M/s. Bravo Sponge Iron Pvt. Ltd. at existing factory premises – Vill. Mahuda, P.O-Rukni, P.S-Para, Dist-Purulia, Pin -723145

- The unit shall abide by all other condition as mentioned in amendment Environmental Clearance (EC) issued vide no. F.No.J-11011/758/2009-IA-II(I) dated 05.11.2020 and NOC issued vide memo no.349-2N-117/2007 (E) dated 10.11.2020 in favour of the expansion project.
- Gaseous Emission levels including secondary fugitive emission from all the sources shall be controlled within the latest permissible limit issued by the Ministry vide G.S.R. 414 (E) dated 30/05/2008 and regulatory monitored. Guidelines /Code of Practice issued by the CPCB shall be followed.
- 3. The occupier shall comply with the National Air Quality Emission Standards issued by the Ministry vide G.S.R. no. 826(E), dated 16/11/2009.
- The unit should obtain all the statutory licenses as applicable from other concerned Govt. Department.
- 5. This consent may be revoked at any time on violation of environmental norms.
- 6. The unit shall submit a status of compliance of the conditions stipulated in EC.
- 7. The Consent to Operate is valid for operation of 01x350 TPD DRI Kiln, 01x0.85 MTPA Pellet Plant and Captive Power 13.9 MWH using one WHRB attached to 1x350TPD DRI Kiln and existing AFBC Boiler.

Environmental Engineer
West Bengal Pollution Control Board

Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell









#### FORMAT NO: ENV/FM/37

Name of the	:	Bravo Sponge Iron Pvt. Ltd.						Type of Industry				Steel & Po	wer	Unit
Industry										1.11				
Address	:	Vill Mohuda.	Vill Mohuda. P.O Rukni, P.S Para, Purulia -					Sampling Date				16.09.2023	3 –	17.09.2023
		723145	ł5					Period of Analysis			:	18.09.2023 - 19.09.2023		
			Date of Issue					. :	21.09.2023	3				
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Me	thod an	ıd Plan		No	Ту	pe	of Sample	:	Ambient Air
Procedure														
Sample Condition	:	Sealed Samp	le ID No.	e ID No. : ENV/67/Sep./A/IX				No	. :	EN	IV/	67/Sep./TR	(A)	/IX/23-24

## A] GENERAL INFORMATION

1. Location of Sampling : Rooftop of Administrative Building (South –West Side)

2. Duration of Sampling : 24 hrs. (09:50 a.m. – 09:50 a.m.)

#### B] METEOROLOGICAL INFORMATION

Average Temperature (°C) : 28.0
 Average Relative Humidity (%) : 76.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

5. Weather Condition : Clear

#### C] RESULTS

SL.	PARAMETERS	UNIT	RESULTS	
NO.	PARAMETERS	UNII	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub>	μg/m <sup>3</sup>	IS 5182 (Part 24) : 2019	48.80
2.	Concentration of PM <sub>10</sub>	μg/m³	IS 5102 (PART 23): 2019	74.26
3.	Concentration of SO <sub>2</sub>	μg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11 (Vol. 11.07) : 2017	16.22
4.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	31.50
5.	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 2019	0.62
6.	Concentration of Pb	μg/m <sup>3</sup>	IS 5182 (Part 22): 2019	< 0.01
7.	Benzo (a) Pyrene (BaP)	ng/m³	IS 5182 (Part 12): 2019 & ASTM D 6209-98, Sec. 11 (Vol. 11.07): 2021/ASTM D 6209-98, Sec. 11 (Vo. 11.07): 2021	<0.36
8.	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/m³	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74
9.	Ozone $(O_3)$	μg/m <sup>3</sup>	IS 5182 (Part-9) : 2019	16.50
10.	Ammonia (NH <sub>3</sub> )	$\mu g/m^3$	IS 5182 (Part 25) : 2018	<4.18
11.	Nickel (Ni)	ng/m <sup>3</sup>	EPA IO 3.2, 1999	< 0.02
12.	Arsenic (As)	ng/m <sup>3</sup>	EPA IO 3.2, 1999& APHA 23rd Ed 3114C: 2017	< 0.01
Remai	rks : Result relates only to	the sample te	sted.	

Reviewed By:

Indraui Bhattacharyya

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical Authorised Signatory :

Hand

Dr. AJOY PAUL Quality Manager

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi







#### FORMAT NO: ENV/FM/37

Name of the	:	Bravo Sponge I	ron Pvt. Lt	d.			Type of	Inc	dustry			Steel & Power Unit		
Industry										1.1				
Address	:	Vill Mohuda.	P.O Ruk	ni, P	P.S. – Para, Purulia –		Samplin	ıg I	ate		:	16.09.2023	3 –	17.09.2023
		723145				Ī	Period of Analysis					18.09.2023 - 19.09.2023		
							Date of Issue				: :	21.09.2023	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method a	ano	d Plan	:	No	Ту	pe	of Sample	:	Ambient Air
Procedure										H	A STATE OF THE PARTY OF THE PAR			
Sample Condition	l :	Sealed Samp	le ID No.	:	ENV/67/Sep./A/X		Report	No.		EN	IV/	67/Sep./TR	(A)	/X/23-24

## A] GENERAL INFORMATION

1. Location of Sampling : Near Gate No. 2 of the plant (North-West Side)

2. Duration of Sampling : 24 hrs. (10:00 a.m. – 10:00 a.m.)

#### B] METEOROLOGICAL INFORMATION

Average Temperature (°C) : 28.0
 Average Relative Humidity (%) : 74.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

5. Weather Condition : Clear

#### C] RESULTS

SL.	PARAMETERS	PARAMETERS UNIT METHOD NO.							
NO.	TAKAMLILKS	ONT!	METHOD NO.	RESULTS					
	Concentration of PM <sub>2.5</sub>	μg/m³	IS 5182 (Part 24) : 2019	47.80					
2.	Concentration of PM <sub>10</sub>	μg/m <sup>3</sup>	IS 5182 (PART 23) : 2019	79.12					
	Concentration of SO <sub>2</sub>	μg/m <sup>3</sup>	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11 (Vol. 11.07) : 2017	12.50					
ł.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	26.82					
	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 2019	0.42					
<b>.</b>	Concentration of Pb	μg/m <sup>3</sup>	IS 5182 (Part 22): 2019	< 0.01					
<b>'</b> .	Benzo (a) Pyrene (BaP)	ng/m³	IS 5182 (Part 12) : 2019 & ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021/ASTM D 6209-98, Sec. 11 (Vo. 11.07) : 2021	<0.36					
	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/m³	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74					
	Ozone (O <sub>3</sub> )	μg/m³	IS 5182 (Part-9) : 2019	20.0					
0.	Ammonia (NH <sub>3</sub> )	μg/m <sup>3</sup>	IS 5182 (Part 25) : 2018	<4.18					
1.	Nickel (Ni)	ng/m³	EPA IO 3.2, 1999	< 0.02					
2.	Arsenic (As)	ng/m³	EPA IO 3.2, 1999& APHA 23rd Ed 3114C : 2017	< 0.01					

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattackaryya

Authorised Signatory :

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#### FORMAT NO: ENV/FM/37

Name of the	:	Bravo Spong	ge Iron Pvt. L	td.		Туре	f In	dustry	7	:	Steel & Po	wer	· Unit
Industry													
Address	:	Vill. – Mohud	da. P.O. – Rul	mi, I	P.S. – Para, Purulia –	Sampl	ing l	Date		:	16.09.202	3 –	17.09.2023
		723145				Period	of A	Analys	is	:	18.09.202	3 –	19.09.2023
						Date o	f Iss	ue			21.09.202	3	
Sampling Plan &	:	ENV/SOP/0	1 Deviation	n fro	om the Sampling Method an	ıd Plan	:	No	T	ype	of Sample	:	Ambient Air
Procedure									4				
Sample Condition	:	Sealed Sai	mple ID No.	:	ENV/67/Sep./A/XI	Repor	t No	. :	E	NV/	67/Sep./TR	(A)	/XI/23-24

## GENERAL INFORMATION

1. Location of Sampling : Near Railway Siding (North –East Side)

2. Duration of Sampling : 24 hrs. (11:00 a.m. – 11:00 a.m.)

#### B] METEOROLOGICAL INFORMATION

Average Temperature (°C) : 27.0
 Average Relative Humidity (%) : 74.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

5. Weather Condition : Clear

#### C] RESULTS

SL.	PARAMETERS	UNIT	METHOD NO.	RESULTS
NO.				
1.	Concentration of PM <sub>2.5</sub>	μg/m³	IS 5182 (Part 24) : 2019	49.62
2.	Concentration of PM <sub>10</sub>	$\mu g/m^3$	IS 5182 (PART 23) : 2019	72.58
3.	Concentration of SO <sub>2</sub>	μg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11 (Vol. 11.07) : 2017	9.20
4.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	29.16
5.	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 2019	0.26
6.	Concentration of Pb	μg/m <sup>3</sup>	IS 5182 (Part 22) : 2019	< 0.01
7.	Benzo (a) Pyrene (BaP)	ng/m³	IS 5182 (Part 12) : 2019 & ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021/ASTM D 6209-98, Sec. 11 (Vo. 11.07) : 2021	<0.36
8.	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/m³	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74
9.	Ozone (O <sub>3</sub> )	μg/m³	IS 5182 (Part-9) : 2019	15.0
10.	Ammonia (NH <sub>3</sub> )	μg/m³	IS 5182 (Part 25): 2018	<4.18
11.	Nickel (Ni)	ng/m³	EPA IO 3.2, 1999	< 0.02
12.	Arsenic (As)	ng/m³	EPA IO 3.2, 1999& APHA 23rd Ed 3114C : 2017	< 0.01

Reviewed By:

INDRANI BHATTACHARYA
 Dy. Technical Manager, Chemical

Indrani Blattacharyya

**Authorised Signatory:** 

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#### FORMAT NO: ENV/FM/37

Name of the	:	Bravo Sponge I	ron Pvt. L	td.			Type of 1	Inc	lustry		:	Steel & Power Unit		
Industry														
Address	:	Vill Mohuda.	P.O. – Ruk	ni, P	P.S. – Para, Purulia –		Samplin	gΣ	)ate		:	16.09.2023	3 –	17.09.2023
		723145	Period of Analysis							:	18.09.2023 - 19.09.2023			
			Date of Issue								21.09.2023	3		
Sampling Plan &	:	ENV/SOP/01	Deviatio	n fro	om the Sampling Method a	nd	l Plan	:	No	Ту	pe o	of Sample	:	Ambient Air
Procedure										6	F			
Sample Condition	:	Sealed Samp	le ID No.		ENV/67/Sep./A/XII		Report N	Vо.	: 1	EN	IV/	67/Sep./TR	(A)	/XII/23-24

## A] GENERAL INFORMATION

Location of Sampling
 Mohuda Village (South-East Side)
 Duration of Sampling
 24 hrs. (11:30 a.m. – 11:30 a.m.)

#### B] METEOROLOGICAL INFORMATION

Average Temperature (°C) : 26.0
 Average Relative Humidity (%) : 72.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

5. Weather Condition : Clear

#### C] RESULTS

SL.	PARAMETERS	UNIT	METHOD NO.	RESULTS
NO.				
1.	Concentration of PM <sub>2.5</sub>	μg/m³	IS 5182 (Part 24) : 2019	43.80
2.	Concentration of PM <sub>10</sub>	μg/m³	IS 5182 (PART 23) : 2019	67.18
3.	Concentration of SO <sub>2</sub>	μg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11 (Vol. 11.07) : 2017	7.82
4.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	26.50
5.	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 2019	0.23
5.	Concentration of Pb	μg/m <sup>3</sup>	IS 5182 (Part 22) : 2019	< 0.01
7.	Benzo (a) Pyrene (BaP)	ng/m³	IS 5182 (Part 12) : 2019 & ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021/ASTM D 6209-98, Sec. 11 (Vo. 11.07) : 2021	<0.36
3.	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/m³	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	< 0.74
€.	Ozone (O <sub>3</sub> )	μg/m³	IS 5182 (Part-9) : 2019	18.50
0.	Ammonia (NH <sub>3</sub> )	μg/m³	IS 5182 (Part 25) : 2018	<4.18
l 1.	Nickel (Ni)	ng/m³	EPA IO 3.2, 1999	< 0.02
2.	Arsenic (As)	ng/m³	EPA IO 3.2, 1999& APHA 23rd Ed 3114C: 2017	< 0.01

Reviewed By:

INDRANI BHATTACHARYA
 Dy. Technical Manager, Chemical

Indrani Blattacharyya

Authorised Signatory:

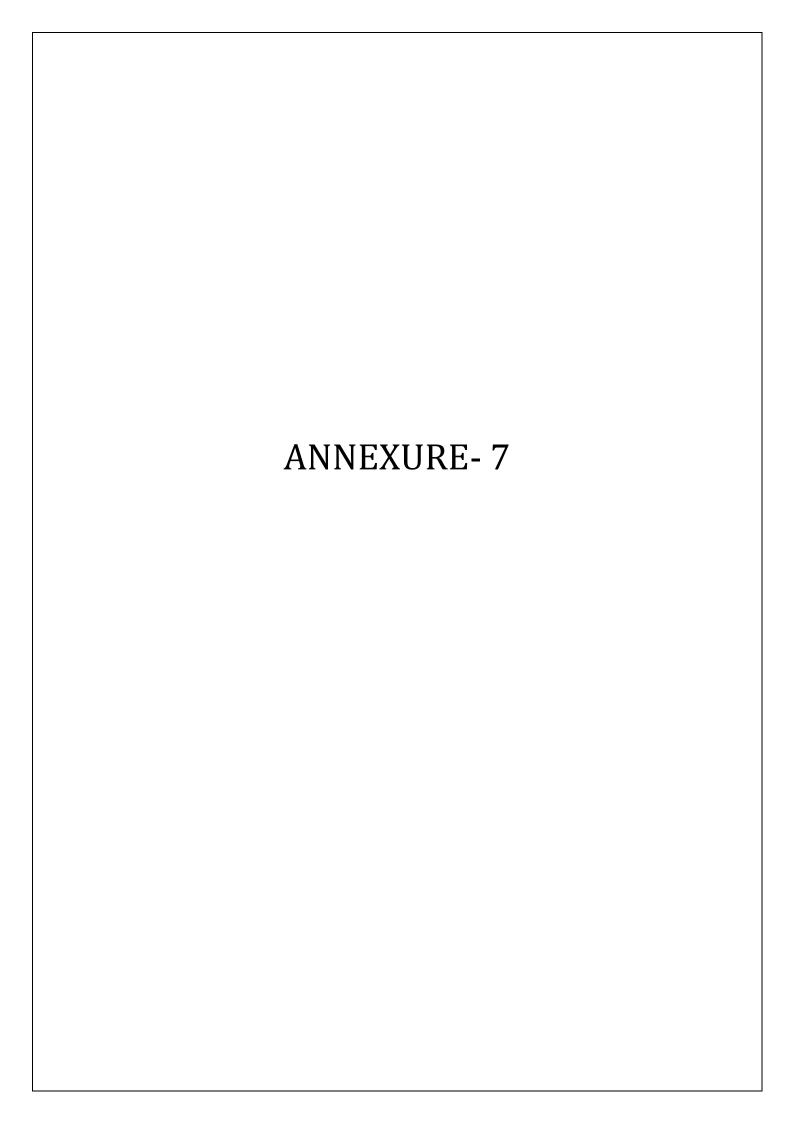
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#### FORMAT NO: ENV/FM/37

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.			Type o	f In	dustry			Steel & Po	wei	· Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, P	.S. – Para, Purulia –		Sampling Date					17.09.2023		
		723145				Period of Analysis					18.09.2023 - 19.09.2023			
						Г	Date of Issue					21.09.2023	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	m the Sampling Method a	nd	l Plan		No	Ту	pe	of Sample	:	Work Zone Air
Procedure										j)	, N			
Sample Condition	••	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XIII		Report	No	. :	EN	VV/	67/Sep./TR	(A)	/XIII/23-24

## A] GENERAL INFORMATION

1. Location of Sampling : Pellet Formation Area

2. Duration of Sampling : 08 hrs. (10:00 a.m. – 06:00 p.m.)

#### B] METEOROLOGICAL INFORMATION

Average Temperature (°C) : 28.0
 Average Relative Humidity (%) : 70.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

#### Cl RESULT

٠,	KLDOLI	**************************************		
SL.	PARAMETER	UNIT	METHOD NO.	RESULT
NO.	1			
1.	Concentration of SPM	μg/m³	IS 5182 (Part 4) : 2019	260.12

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA
 Dy. Technical Manager, Chemical

Indrani Blattacharyya

**Authorised Signatory:** 

Hand

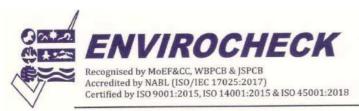
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FORMAT NO: ENV/FM/57

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.		Туре	of In	ndustry	7	:	Steel & Po	wer	Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, F	P.S. – Para, Purulia –	Sam	oling	Date		:	17.09.202	3	
		723145				Peri	od of	Analys	is		18.09.2023 - 19.09.2023		
						Date	of Is	sue			21.09.2023	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	ıd Plar	1 :	No	Ту	ре	of Sample	:	Work Zone Air
Procedure													
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XIII	Repo	ort No	). :	EN	IV/	67/Sep./TR	(A)	/XIII/23-24

#### A] GENERAL INFORMATION

1. Location of Sampling : Pellet Formation Area

2. Duration of Sampling : 08 hrs. (10:00 a.m. – 06:00 p.m.)

#### B] METEOROLOGICAL INFORMATION

Average Temperature (°C) : 28.0
 Average Relative Humidity (%) : 70.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

#### C] RESULTS

SL.	PARAMETERS	UNIT	METHOD NO.	RESULTS
NO.				
1.	Concentration of SO <sub>2</sub>	$\mu g/m^3$	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	16.20
			(Vol. 11.07) : 2017	
2.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	36.56
			(Vol. 11.07) : 2018	
				-

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA
 Dy. Technical Manager, Chemical

Indrani Bhattacharyya

**Authorised Signatory:** 

Hand

Dr. AJOY PAUL Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata -700028 Ph. 033 25792891/ 25497490 Fax : 033 25299141

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi







#### FORMAT NO: ENV/FM/57

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.			Type o	f In	dustry		: 1	Steel & Po	wer	· Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, P	.S. – Para, Purulia –		Sampli	ng I	Date		:	17.09.202	3	
		723145			•		Period	of A	Analys	is	:	18.09.202	3 –	19.09.2023
							Date of	Iss	ue		:	21.09.202	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	m the Sampling Method a	nc	d Plan		No	T	ype	of Sample	:	Work Zone Air
Procedure										d				
Sample Condition	••	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XIV		Report	No	. :	E	NV/	67/Sep./TR	(A)	/XIV/23-24

A] GENERAL INFORMATION

1. Location of Sampling : DRI Area (100 TPD)

2. Duration of Sampling : 08 hrs. (10:10 a.m. – 06:10 p.m.)

B] METEOROLOGICAL INFORMATION

Average Temperature (°C) : 29.0
 Average Relative Humidity (%) : 72.0

3. Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	μg/m³	IS 5182 (Part 4) : 2019	236.10

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Bhattacharyya

**Authorised Signatory:** 

Harry

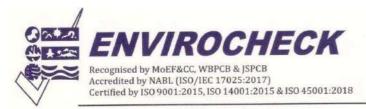
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FORMAT NO: ENV/FM/57

Name of the Industry	:	Bravo Sponge l	ron Pvt. Lt	d.		Тур	e of I	Ind	ustry	:	Steel & Po	wer	Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, F	P.S. – Para, Purulia –	Sampling Date					17.09.2023		
		723145				Period of Analysis				s :	18.09.2023 - 19.09.2023		
						Date of Issue			:	21.09.202	3		
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	ıd Plaı	n :	: [	No	Туре	of Sample	:	Work Zone Air
Procedure													
Sample Condition	:	Sealed Samp	mple ID No. : ENV/67/Sep./A/XIV Report No. : ENV/67/Sep./TR(							(A)	/XIV/23-24		

#### A] GENERAL INFORMATION

1. Location of Sampling : DRI Area (100 TPD)

2. Duration of Sampling : 08 hrs. (10:10 a.m. – 06:10 p.m.)

#### B] <u>METEOROLOGICAL INFORMATION</u>

Average Temperature (°C) : 29.0
 Average Relative Humidity (%) : 72.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

#### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	μg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	12.50
			(Vol. 11.07) : 2017	
2.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	32.62
			(Vol. 11.07): 2018	

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattackaryya

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#### FORMAT NO: ENV/FM/57

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.		Type	of In	dustry		: -	Steel & Po	wer	· Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, P	P.S. – Para, Purulia –	Sampl	ing l	Date		:	16.09.2023	3	
		723145	23145							:	18.09.2023 - 19.09.2023		
						Date of Issue					21.09.2023	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	n fro	om the Sampling Method ar	n <mark>d</mark> Plan	:	No	T	ype	of Sample	:	Work Zone Air
Procedure									d	1			
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XV	Report No. : EN				NV/	67/Sep./TR	(A)	/XV/23-24

#### A] GENERAL INFORMATION

1. Location of Sampling : Cooler Discharge –DRI Area(100 TPD)

2. Duration of Sampling : 08 hrs. (10:00 a.m. – 06:00 p.m.)

#### B] METEOROLOGICAL INFORMATION

Average Temperature (°C) : 28.0
 Average Relative Humidity (%) : 76.0

4. Smell or Odour : No Remarkable Smell

#### C] RESULT

3.

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	μg/m³	IS 5182 (Part 4) : 2019	241.68

756.0

Remarks : Result relates only to the sample tested.

Barometric Pressure (mm of Hg)

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattacharyya

**Authorised Signatory:** 

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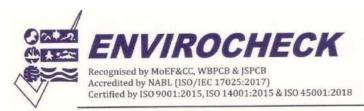
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FORMAT NO: ENV/FM/57

Name of the	:	Bravo Sponge l	ron Pvt. Lt	d.		Тур	e of	Ind	lustry		:	Steel & Pov	wer	Unit
Industry														
Address	:	Vill. – Mohuda.	P.O Ruk	ni, F	P.S. – Para, Purulia –	Sampling Date					: 16.09.2023			
		723145				Period of Analysis				S	:	18.09.2023 - 19.09.2023		
						Date of Issue				:	21.09.2023	3		
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	ıd Pla	n	: [	No	Тур	e o	f Sample		Work Zone Air
Procedure														
Sample Condition	:	Sealed Samp	le ID No. : ENV/67/Sep./A/XV Report No. : ENV/67/Sep./T							7/Sep./TR	(A)	/XV/23-24		

#### A] GENERAL INFORMATION

1. Location of Sampling : Cooler Discharge –DRI Area(100 TPD)

2. Duration of Sampling : 08 hrs. (10:00 a.m. – 06:00 p.m.)

#### B] <u>METEOROLOGICAL INFORMATION</u>

Average Temperature (°C) : 28.0
 Average Relative Humidity (%) : 76.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

#### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	μg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	11.82
			(Vol. 11.07): 2017	
2.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	28.50
			(Vol. 11.07) : 2018	

Pemarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattacharyya

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#### FORMAT NO: ENV/FM/57

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.		Туре	f In	dustry	111	-:-	Steel & Po	wer	· Unit
/		77:11 3.6 1 1	D.O. D.1		N.G. D. D. U	0 1					4600000	_	
Address	:	Vill. – Mohuda.	P.O. – Ruk	nı, F	P.S. – Para, Purulia –	Sampl	ıng I	Jate		:	16.09.2023	3	
		723145				Period	of A	Analys	is	:	18.09.2023	3 –	19.09.2023
					-	Date o	f Iss	ue		4.	21.09.2023	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	ı <mark>d</mark> Plan		No	Ту	уре	of Sample	:	Work Zone Air
Procedure									J.	1			
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XVI	Repor	. No		El	VV/	67/Sep./TR	(A)	/XVI/23-24

A] GENERAL INFORMATION

1. Location of Sampling : DRI Area (350 TPD)

2. Duration of Sampling : 08 hrs. (10:20 a.m. – 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0

Average Relative Humidity (%) : 70.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	μg/m³	IS 5182 (Part 4) : 2019	261.59

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Bhattacharyya

**Authorised Signatory:** 

Hand

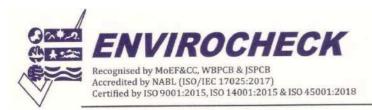
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FORMAT NO: ENV/FM/57

Name of the	:	Bravo Sponge	ron Pvt. Lt	d.		Туре	of I	ndustry	7	:	Steel & Po	wer	Unit Unit
Industry													
Address		Vill. – Mohuda.	P.O Ruk	ni, F	P.S. – Para, Purulia –	Samj	oling	Date		••	: 16.09.2023		
		723145				Period of Analysis			is	:	18.09.2023 - 19.09.2023		
						Date of Issue				:	21.09.2023	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	ıd Plan	:	No	Ту	рe	of Sample	:	Work Zone Air
Procedure													
Sample Condition	:	Sealed Samp	nple ID No. : ENV/67/Sep./A/XVI Report No. : ENV/67/Sep./TR							(A)	/XVI/23-24		

#### A] GENERAL INFORMATION

1. Location of Sampling : DRI Area (350 TPD)

2. Duration of Sampling : 08 hrs. (10:20 a.m. – 06:20 p.m.)

#### B] <u>METEOROLOGICAL INFORMATION</u>

1. Average Temperature (°C) : 30.0

Average Relative Humidity (%) : 70.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

#### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	μg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	9.20
			(Vol. 11.07) : 2017	
2.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	29.12
	/ 1/1/2		(Vol. 11.07): 2018	wt

Remarks : Result relates only to the sample tested.

Reviewed By:

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#### FORMAT NO: ENV/FM/57

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.		Туре	f In	dustry	- 1	:	Steel & Po	wer	· Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, F	P.S. – Para, Purulia –	Sampl	ing I	Date		:	16.09.202	3	
		723145				Period	of A	Analys	is	:	18.09.2023	3 – 1	19.09.2023
						Date o	f Iss	ue		:	21.09.2023	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	ıd Plan		No	Ту	<i>у</i> ре	of Sample	:	Work Zone Air
Procedure					10.0				d	8	7		
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XVII	Repor	l No	. :	El	VV/	67/Sep./TR	(A)	/XVII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : SMS Area

2. Duration of Sampling : 08 hrs. (10:25 a.m. – 06:20 p.m.)

B] <u>METEOROLOGICAL INFORMATION</u>

Average Temperature (°C) : 27.0
 Average Relative Humidity (%) : 70.0

3. Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	μg/m³	IS 5182 (Part 4) : 2019	310.58

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattackaryya

**Authorised Signatory:** 

Hand

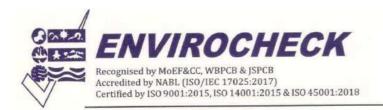
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#### FORMAT NO: ENV/FM/57

Name of the	:	Bravo Sponge I	ron Pvt. Lt	d.		Туре	of In	dustry	7	:	Steel & Po	wer	Unit Unit
Industry													
Address	:	Vill. – Mohuda.	P.O Ruk	ni, F	P.S. – Para, Purulia –	Sampl	ing l	Date		:	16.09.2023	3	
		723145				Period	of A	Analys	is	:	18.09.2023	3 –	19.09.2023
						Date o	f Iss	ue		:	21.09.2023	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method ar	nd Plan	:	No	Ty	уре	of Sample	:	Work Zone Air
Procedure													
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XVII	Repor	t No		El	NV/	67/Sep./TR	(A)	/XVII/23-24

#### A] GENERAL INFORMATION

1. Location of Sampling : SMS Area

2. Duration of Sampling : 08 hrs. (10:25 a.m. – 06:20 p.m.)

#### B] <u>METEOROLOGICAL INFORMATION</u>

Average Temperature (°C) : 27.0
 Average Relative Humidity (%) : 70.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

#### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	μg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	11.52
			(Vol. 11.07) : 2017	
2.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	28.50
			(Vol. 11.07) : 2018	*

marks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattackaryya

**Authorised Signatory:** 

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#### FORMAT NO: ENV/FM/57

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.			Туре о	f In	dustry	111	-:-	Steel & Po	wei	· Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, P	.S Para, Purulia -		Sampli	ng I	Date		:	16.09.202	3	
		723145					Period	of A	Inalys	is	:	18.09.202	3 –	19.09.2023
					-	Γ	Date of	f Iss	ue			21.09.202	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	m the Sampling Method a	ınc	d Plan		No	Т	ype	of Sample	:	Work Zone Air
Procedure										d				
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XVIII		Report	No	. :	Е	NV/	67/Sep./TR	(A)	/XVIII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : AFBC Boiler Area

2. Duration of Sampling : 08 hrs. (10:30 a.m. – 06:30 p.m.)

B] <u>METEOROLOGICAL INFORMATION</u>

Average Temperature (°C) : 30.0
 Average Relative Humidity (%) : 74.0

3. Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	μg/m³	IS 5182 (Part 4) : 2019	316.16

Remarks : Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattacharyya

**Authorised Signatory:** 

Hand

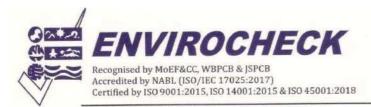
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FORMAT NO: ENV/FM/57

Name of the Industry	:	Bravo Sponge I	ron Pvt. Lt	d.		Тур	oe of l	Ind	ustry	:	Steel & Po	wer	Unit
Address	:	Vill. – Mohuda.	P.O. – Ruk	ni, F	P.S. – Para, Purulia –	San	nplin	g D	ate	:	16.09.202	3	
		723145				Per	iod o	f Aı	nalysis	3 :	18.09.202	3 – 1	19.09.2023
						Dat	te of I	ssu	ıe	:	21.09.202	3	
Sampling Plan &	:	ENV/SOP/01	Deviation	ı fro	om the Sampling Method an	ıd Pla	an :	: [	No	Туре	of Sample	:	Work Zone Air
Procedure													
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/67/Sep./A/XVIII	Rep	ort N	lo.	:	ENV/	67/Sep./TR	(A)	/XVIII/23-24

#### A] GENERAL INFORMATION

1. Location of Sampling : AFBC Boiler Area

2. Duration of Sampling : 08 hrs. (10:30 a.m. – 06:30 p.m.)

#### B] <u>METEOROLOGICAL INFORMATION</u>

Average Temperature (°C) : 30.0
 Average Relative Humidity (%) : 74.0
 Barometric Pressure (mm of Hg) : 756.0

4. Smell or Odour : No Remarkable Smell

#### C] RESULTS

SL.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	μg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	16.20
			(Vol. 11.07) : 2017	
2.	Concentration of NO <sub>2</sub>	μg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	32.52
			(Vol. 11.07) : 2018	**

Remarks: Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattacharyya

**Authorised Signatory:** 

Hand

Dr. AJOY PAUL Quality Manager

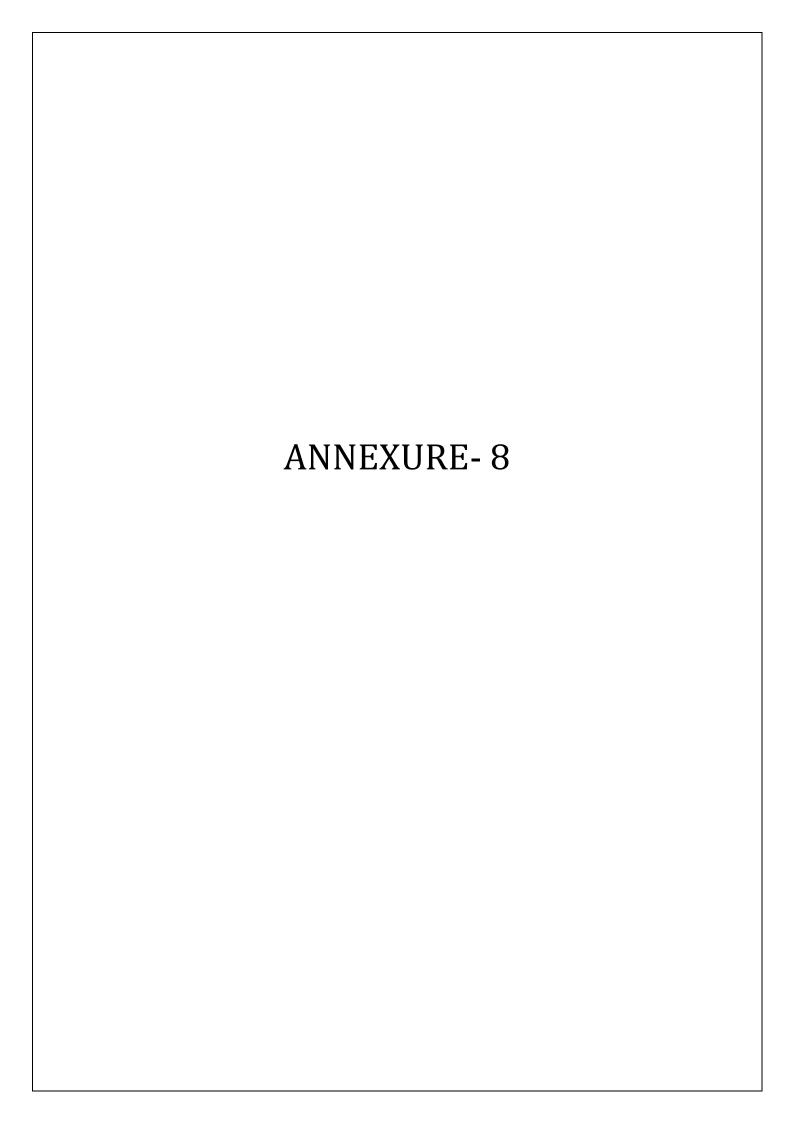
<End of Report>

H.O. : 63/B, Rastraguru Avenue, Kolkata -700028 Ph. 033 25792891/ 25497490 Fax : 033 25299141

Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792889

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi









#### FORMAT NO. ENV/FM/40

#### TEST REPORT

Name of the Industry		:	E	Bravo Sponge Iron	Pvt. Ltd.		Тур	e of In	idustry		Stee	l & Power Unit
Address		:	V	/ill. – Mohuda. P.O.	– Rukni, P.S. – Para, Purul	ia	San	pling	Date	:	17.0	9.203
			-	- 723145			Per	iod of	Analysis	: 4	17.0	9.2023 - 26.09.2023
							Dat	e of Is	sue	:	28.0	9.2023
Sampling Plan	n &		:	ENV/SOP/01	Deviation from the		:	No	Type of Samp	le	W . F .	Industrial Effluent Water
Procedure				40	Sampling Method and Pla	an			- /			(Grab)
Location :		Е.	Г.Р	Outlet	Sample Condition :		Seal	ed	Sample ID No.	6	ENV	/24/Sep./W/IV
Report No.		:	E	NV/24/Sep./TR(W	7)/IV/23-24			- 31	Sagara Lab	TEN	100	

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS	LIMIT
1.	рН	4500 H+B APHA 23 <sup>rd</sup> Edition, 2017	,	6.83	5.5 - 9.0
2.	Total Suspended solids	2540 D APHA 23 <sup>rd</sup> Edition, 2017	mg/l	38.0	100.0
3.	Oil & Grease	5520 B/D APHA 23rd Edition, 2017	mg/l	6.2	10.0
4.	Chemical Oxygen Demand	5200 B/C/D APHA 23 <sup>rd</sup> Edition, 2017	mg/l	160.0	250.0
5.	Biochemical Oxygen	5210 B APHA 23 <sup>rd</sup> Edition, 2017	mg/l	<2.0	30.0
	Demand for 5 days at 20°C				

Remarks: a) Result shows that above tested parameters are beyond limit except pH and Oil & Grease value as per Schedule VI inserted by Rule 2(d) of the Environment (Protection) Second Amendment Rules, 1993 notified vide G.S.R. 422(E) dated 19.05.1993, published in the Gazette No. 174 dated 19.05.1993.

b) Result relates only to the sample tested.

c) Sample collected by Envirocheck and sent lab for testing in sealed condition.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indraui Blattackeryya

**Authorised Signatory:** 

Man

Dr. AJOY PAUL Quality Manager

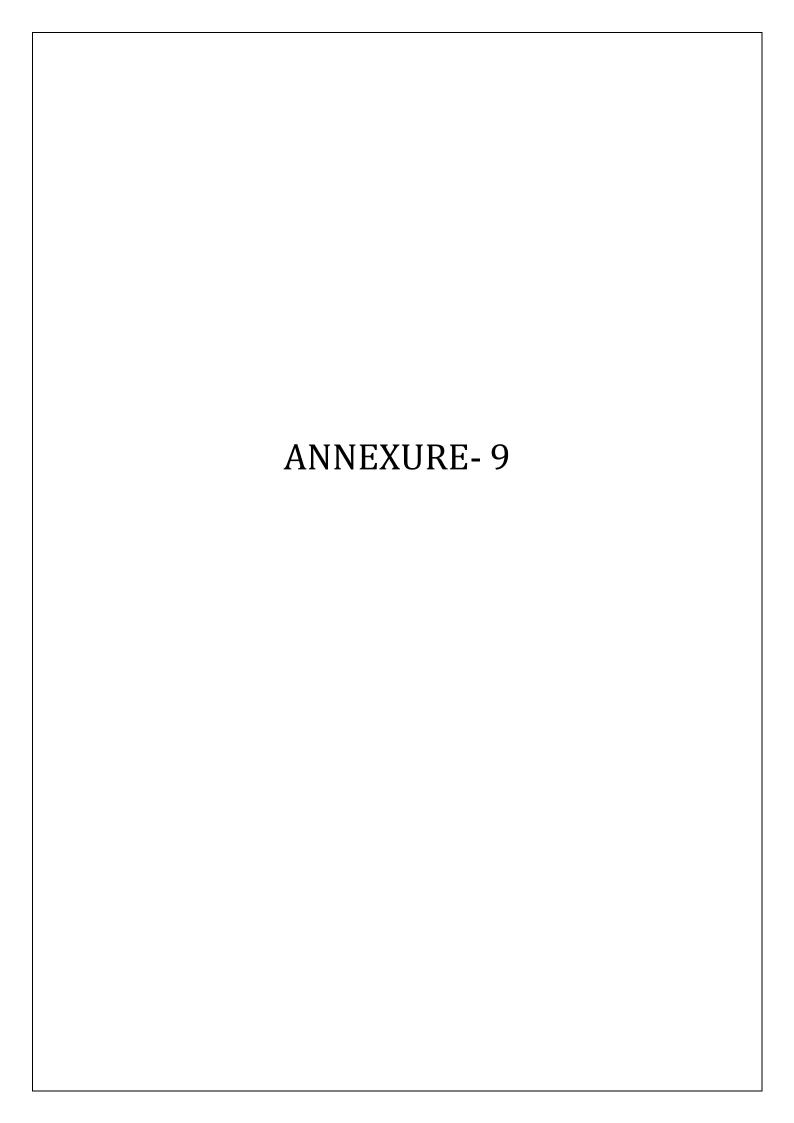
<End of Report>

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi









#### FORMAT NO. ENV/FM/55

#### TEST REPORT

Name of the	Ind	ustr	У	:	Bravo Spo	onge Iron Pvt. Ltd.			Туре	e of	Indust	ry	:	St	eel & Po	owe	er Unit
Address				:	Vill. – Mol	nuda. P.O. – Rukni, P	.S	- Para,	Samp	plin	g Date		-:	17	7.09.202	3	
					Purulia –	723145			Perio	od o	f Anal	ysis	:	17	7.09.202	3 –	26.09.2023
									Date	of I	ssue		:	28	3.09.202	3	
Sampling Pla	ın		E	NV/	SOP/01	Deviation from the S	am	pling Metho	od	:	No	Туре	of	Sam	ple	:	Ground Water
& Procedure						and Plan									8		
Location	:	Τυ	ıbew	ell o	f Mahuda	Sample	:	Sealed	S	Samj	ole ID	No.			ENV/3	399	/Sep./W/M(i)
		Vi	llage			Condition							ď		104		
Report No.	Report No. : ENV/399/Sep.		99/Sep./TR	(W)/M(i)/23-24									2				

	<u>PARAMETERS</u>	METHOD	<u>UNIT</u>	<u>RESULTS</u>
1.	Colour	APHA 23rd Ed., 3111 B : 2017	Hazen	1.0
2.	Odour	APHA 23rd Ed., 2150 B: 2017	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Odourless
3.	pH	APHA 23 <sup>rd</sup> Ed., 4500 – H+B: 2017	The second second	6.80
4.	Taste	APHA 23 <sup>rd</sup> Ed., 2160 B: 2017	,	Acceptable
5.	Turbidity	APHA 23rd Ed., 2130 B: 2047	NTU	1.80
6.	Total Dissolved Solids	APHA 23 <sup>rd</sup> Ed., 2540 B: 2017	mg./l	480.0
7.	Calcium	APHA 23 <sup>rd</sup> Ed., 3500 Ca-B: 2017	mg./l	38.48
8.	Chloride	APHA 23rd Ed., 4500 Cl-B/D : 2017	mg./l	49.0
9.	Iron	APHA 23 <sup>rd</sup> Ed., 3111 B: 2017	mg./l	0.61
10.	Magnesium	APHA 23 <sup>rd</sup> Ed., 3500 Mg-B: 2017	mg./l	5.76
11.	Nitrate	APHA 23rd Ed., NO <sub>3</sub> -E: 2017	mg./l	6.20
12.	Sulphate	APHA 23rd Ed., 4500 SO <sub>4</sub> -E: 2017	mg./l	48.50
13.	Total Alkalinity	APHA 23rd Ed., 2320 B: 2017	mg./l	160.0
14.	Total Hardness	APHA 23rd Ed., 2340 C: 2017	mg./l	120.0
15.	Arsenic	IS 3025 (Part 37): 1988: 2014	mg./l	<0.01
16.	Chromium	APHA 23 <sup>rd</sup> Ed., 3111 Cr-B: 2017	mg./l	<0.02
17.	Boron	APHA 23rd Ed., 4500 B-C: 2017	mg./l	<0.1

Remarks : a) Sample collected by Envirocheck and sent to lab for testing in sealed condition.
b) Result relates only to the sample tested.

Reviewed By:

DURBADAL CHAKRABORTY
Dy. Quality Manager

**Authorised Signatory:** 

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

H.O. : 63/B, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792891/ 25497490 = Fax : 033 25299141

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#### FORMAT NO. ENV/FM/55

#### TEST REPORT

Name of the Industry : Bravo Sponge Iron Pvt. Ltd.			Type of Industry		:	Steel & Power Unit		er Unit								
Address : Vill. – Mohuda. P.O. – Rukni, P.S.			.S	- Para,	Sampling Date		-:	17.09.2023								
			Purulia –	723145 Period of Analysis			ysis	:	17.09.2023 - 26.09.2023							
							Date	e of I	ssue		:	28	.09.202	3		
Sampling Pla	n		Е	NV/	/SOP/01 Deviation from the Sampling Method : No		No	Туре	of	Samj	ple	:	Ground Water			
& Procedure						and Plan								8		
Location	:	Τυ	ıbew	ell c	f Rukmi	Sample	:	Sealed	Sample ID No.		: ENV/399/Sep./W/M(ii)		/Sep./W/M(ii)			
		Vi	llage			Condition		12			ď		4			
Report No. : ENV/399/Sep./TR(W)/M(ii)/23-24																

	<u>PARAMETERS</u>	METHOD	<u>UNIT</u>	RESULTS
1.	Colour	APHA 23rd Ed., 3111 B: 2017	Hazen	1.0
2.	Odour	APHA 23rd Ed., 2150 B: 2017	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Odourless
3.	pH	APHA 23 <sup>rd</sup> Ed., 4500 – H+B: 2017	The second second	6.91
4.	Taste	APHA 23rd Ed., 2160 B: 2017	,	Acceptable
5.	Turbidity	APHA 23rd Ed., 2130 B: 2047	NTU	1.86
6.	Total Dissolved Solids	APHA 23rd Ed., 2540 B: 2017	mg./l	520.0
7.	Calcium	APHA 23 <sup>rd</sup> Ed., 3500 Ca-B : 2017	mg./l	40.88
8.	Chloride	APHA 23rd Ed., 4500 Cl-B/D: 2017	mg./l	55.81
9.	Iron	APHA 23rd Ed., 3111 B: 2017	mg./l	0.68
10.	Magnesium	APHA 23 <sup>rd</sup> Ed., 3500 Mg-B: 2017	mg./l	9.12
11.	Nitrate	APHA 23rd Ed., NO <sub>3</sub> -E: 2017	mg./l	7.50
12.	Sulphate	APHA 23rd Ed., 4500 SO <sub>4</sub> -E: 2017	mg./l	56.20
13.	Total Alkalinity	APHA 23rd Ed., 2320 B: 2017	mg./l	172.50
14.	Total Hardness	APHA 23rd Ed., 2340 C: 2017	mg./l	140.0
15.	Arsenic	IS 3025 (Part 37) : 1988 : 2014	mg./l	<0.01
16.	Chromium	APHA 23 <sup>rd</sup> Ed., 3111 Cr-B: 2017	mg./l	<0.02
17.	Boron	APHA 23rd Ed., 4500 B-C: 2017	mg./l	<0.1

Remarks : a) Sample collected by Envirocheck and sent to lab for testing in sealed condition.
b) Result relates only to the sample tested.

Reviewed By:

DURBADAL CHAKRABORTY
Dy. Quality Manager

**Authorised Signatory:** 

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

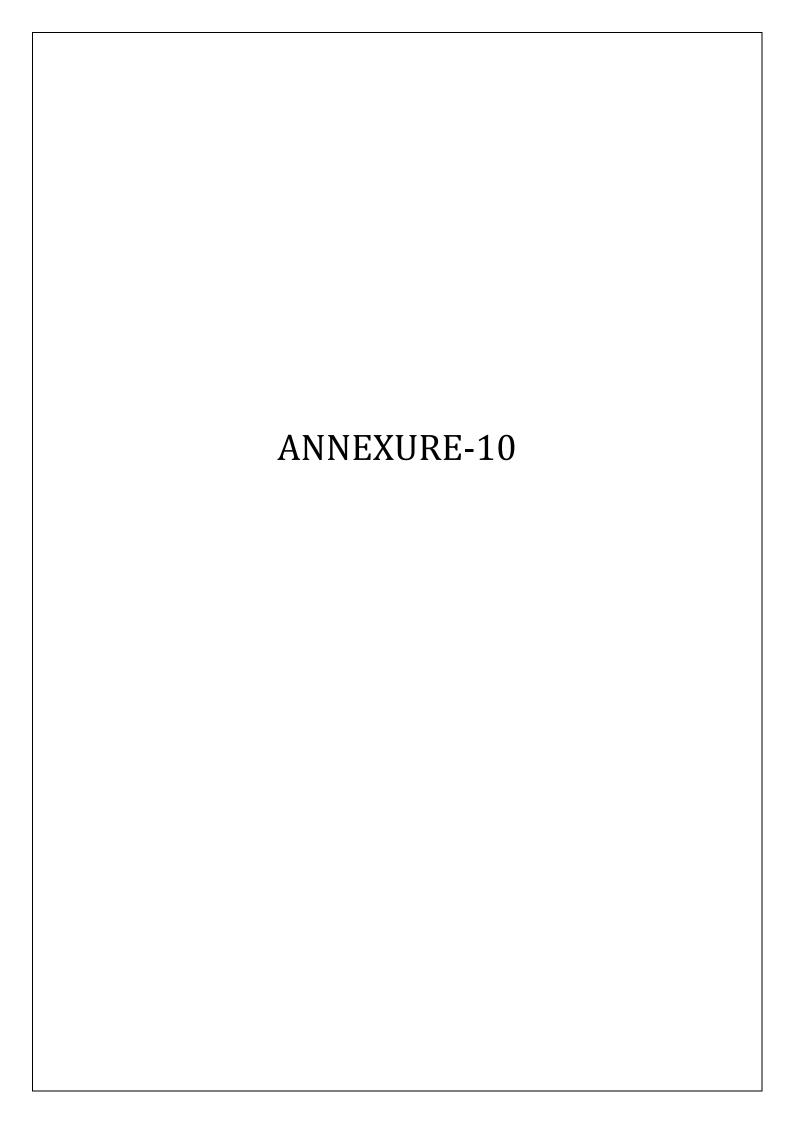
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#### **NOISE MONITORING REPORT Bravo Sponge Iron Pvt. Ltd.**

Vill. - Mahuda, P.O - Rukni, P.S - Para, District - Purulia, Pin - 723145

#### MONITORED BY:

ENVIROCHECK 189, Rastraguru Avenue, Calcutta - 700 028

Report No: ENV/17/Sep/(TR)N/I/23-24

Sampling Locations :	Mohuda Village (South East Side)	Date of Study :	16/09/2023
Category:	Integrated Steel Plant	Day time :	6 AM to 10 PM

Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>
6:00 AM to 7:00 AM	46.1	49.4	48.06	
7:00 AM to 8:00 AM	49.3	53.5	51.89	
8:00 AM to 9:00 AM	50.4	54.9	53.21	
9:00 AM to 10:00 AM	51.7	55.2	53.79	
10:00 AM to 11:00 AM	52.4	54.6	53.64	
11:00 AM to 12:00 PM	52.8	54.9	53.98	
12:00 PM to 1:00 PM	53.2	55.7	54.63	
1:00 PM to 2:00 PM	52.4	55.9	54.49	52.02
2:00 PM to 3:00 PM	51.3	53.4	52.48	
3:00 PM to 4:00 PM	50.6	52.8	51.84	
4:00 PM to 5:00 PM	49.9	51.6	50.83	
5:00 PM to 6:00 PM	48.6	51.2	50.09	
6:00 PM to 7:00 PM	48.4	51.0	49.89	
7:00 PM to 8:00 PM	45.2	50.6	48.69	
8:00 PM to 9:00 PM	44.9	49.6	47.86	
9:00 PM to 10:00 PM	43.8	48.0	46.39	

0.004.
.0 PM to 6 AM
0.

Time(hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	41.5	44.8	43.46	
11:00 PM to 12:00 AM	40.1	42.9	41.72	
12:00 AM to 1:00 AM	39.2	41.6	40.56	
1:00 AM to 2:00 AM	36.1	40.4	38.76	41.23
2:00 AM to 3:00 AM	34.2	38.4	36.79	
3:00 AM to 4:00 AM	36.4	39.9	38.49	
4:00 AM to 5:00 AM	39.7	41.4	40.63	
5:00 AM to 6:00 AM	42.4	45.6	44.29	

L<sub>min</sub>: Minimum Noise level

L<sub>max</sub>: Maximum Noise level

 $L_{eq}\,$ :Equivalent sound energy

Compiled by : (Signature)

**Envirocheck Seal** Dr. Ajoy Paul Date: 20/09/2023



Certified by : (Signature) Dr. S. B. Chowdhury

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ( 033-25792891/25497490, Fax : 033-25299141

Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ( 033-25792889 : info@envirocheck.in/envirocheck50@gmail.com / Website : www.envirocheck.in

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#### **NOISE MONITORING REPORT Bravo Sponge Iron Pvt. Ltd.**

Vill. – Mahuda, P.O – Rukni, P.S – Para, District – Purulia, Pin - 723145

#### MONITORED BY:

**ENVIROCHECK** 

189, Rastraguru Avenue, Calcutta - 700 028

Report No: ENV/17/Sep/(TR)N/II/23-24

Sampling Locations :	Raw Material Yard (Western Side)	Date of Study:	16/09/2023
Category:	Integrated Steel Plant	Day time :	6 AM to 10 PM

Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>
6:00 AM to 7:00 AM	51.5	55.3	53.80	
7:00 AM to 8:00 AM	52.4	54.3	53.45	
8:00 AM to 9:00 AM	51.0	56.4	54.49	1
9:00 AM to 10:00 AM	50.6	54.4	52.90	
10:00 AM to 11:00 AM	51.6	55.7	54.12	
11:00 AM to 12:00 PM	52.3	54.6	53.60	1
12:00 PM to 1:00 PM	49.3	53.4	51.82	53.66
1:00 PM to 2:00 PM	53.7	56.3	55.19	
2:00 PM to 3:00 PM	52.1	54.8	53.66	
3:00 PM to 4:00 PM	51.5	55.3	53.80	
4:00 PM to 5:00 PM	52.4	54.3	53.45	
5:00 PM to 6:00 PM	51.0	56.4	54.49	
6:00 PM to 7:00 PM	50.6	54.4	52.90	
7:00 PM to 8:00 PM	51.6	55.7	54.12	
8:00 PM to 9:00 PM	52.3	54.6	53.60	
9:00 PM to 10:00 PM	49.3	53.4	51.82	

Date of Study:	16/09/2023 To 17/09/2023	Night time:	10 PM to 6 AM

Time(hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	44.2	47.1	45.89	
11:00 PM to 12:00 AM	38.2	43.5	41.61	
12:00 AM to 1:00 AM	39.3	41.6	40.60	
1:00 AM to 2:00 AM	37.6	40.6	39.35	43.72
2:00 AM to 3:00 AM	43.6	48.1	46.41	
3:00 AM to 4:00 AM	41.8	45.9	44.32	
4:00 AM to 5:00 AM	41.0	44.2	42.89	
5:00 AM to 6:00 AM	42.5	45.0	43.93	

L<sub>mir</sub>: Minimum Noise level

L<sub>max</sub>: Maximum Noise level

L<sub>eq</sub>: Equivalent sound energy

Compiled by : (Signature)

**Envirocheck Seal** 

Dr. Ajoy Paul Date: 20/09/2023



Certified by : (Signature) Dr. S. B. Chowdhury

: 63/B, Rastraguru Avenue, Kolkata - 700028 ( 033-25792891/25497490, Fax : 033-25299141 H.O.

Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ( 033-25792889

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: • UAE • Qatar • Netherlands Overseas









## NOISE MONITORING REPORT Bravo Sponge Iron Pvt. Ltd.

Vill. – Mahuda, P.O – Rukni, P.S – Para, District – Purulia, Pin - 723145

#### MONITORED BY:

ENVIROCHECK 189, Rastraguru Avenue, Calcutta - 700 028

Report No: ENV/17/Sep/(TR)N/III/23-24

Sampling Locations:	Near Administrative Building – Eastern Side	Date of Study :	16/09/2023
Category:	Integrated Steel Plant	Day time :	6 AM to 10 PM

Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>
6:00 AM to 7:00 AM	53.7	59.7	57.66	
7:00 AM to 8:00 AM	51.3	58.3	56.08	
8:00 AM to 9:00 AM	51.8	57.6	55.60	
9:00 AM to 10:00 AM	50.4	55.8	53.89	
10:00 AM to 11:00 AM	53.9	56.8	55.59	
11:00 AM to 12:00 PM	52.2	56.4	54.79	
12:00 PM to 1:00 PM	52.7	59.8	57.56	
1:00 PM to 2:00 PM	51.9	57.6	55.62	54.65
2:00 PM to 3:00 PM	52.4	54.1	53.33	
3:00 PM to 4:00 PM	50.6	53.7	52.42	
4:00 PM to 5:00 PM	50.6	56.2	54.25	
5:00 PM to 6:00 PM	51.3	58.5	56.25	
6:00 PM to 7:00 PM	48.1	51.2	49.92	
7:00 PM to 8:00 PM	47.9	53.7	51.70	
8:00 PM to 9:00 PM	46.8	49.8	48.55	
9:00 PM to 10:00 PM	45.8	50.6	48.83	

Date of Study :	16/09/2023 To 17/09/2023	Night time :	10 PM to 6 AM
-----------------	--------------------------	--------------	---------------

Time(hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	44.1	48.6	46.91	
11:00 PM to 12:00 AM	43.7	46.1	45.06	
12:00 AM to 1:00 AM	42.5	47.6	45.76	
1:00 AM to 2:00 AM	41.8	45.8	44.25	44.37
2:00 AM to 3:00 AM	40.7	43.2	42.13	1
3:00 AM to 4:00 AM	40.2	42.8	41.69	1
4:00 AM to 5:00 AM	41.5	43.9	42.86	
5:00 AM to 6:00 AM	42.6	44.5	43.65	1

L<sub>min</sub>: Minimum Noise level

L<sub>max</sub>: Maximum Noise level

 $L_{eq}\,$ :Equivalent sound energy

Acity

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal Date: 20/09/2023

Kolkata 700 028 Certified by : (Signature)
Dr. S. B. Chowdhury

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ( 033-25792891/25497490, Fax : 033-25299141

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#### **NOISE MONITORING REPORT** Bravo Sponge Iron Pvt. Ltd.

Vill. – Mahuda, P.O – Rukni, P.S – Para, District – Purulia, Pin - 723145

#### MONITORED BY:

**ENVIROCHECK** 189, Rastraguru Avenue, Calcutta - 700 028

Report No: ENV/17/Sep/(TR)N/IV/23-24

Sampling Locations :	Railway Siding Area – North East Side	Date of Study :	16/09/2023
Category:	Integrated Steel Plant	Day time :	6 AM to 10 PM

Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>
6:00 AM to 7:00 AM	52.5	58.6	56.54	
7:00 AM to 8:00 AM	53.1	57.8	56.06	
8:00 AM to 9:00 AM	57.4	59.2	58.28	
9:00 AM to 10:00 AM	55.1	58.6	56.86	
10:00 AM to 11:00 AM	50.3	55.8	53.78	
11:00 AM to 12:00 PM	52.5	58.4	56.15	
12:00 PM to 1:00 PM	55.9	59.1	57.79	54.78
1:00 PM to 2:00 PM	54.2	58.6	56.93	
2:00 PM to 3:00 PM	52.9	54.3	53.66	
3:00 PM to 4:00 PM	51.6	53.8	52.84	
4:00 PM to 5:00 PM	48.6	50.1	49.41	
5:00 PM to 6:00 PM	49.9	50.2	50.05	
6:00 PM to 7:00 PM	47.9	52.8	51.01	
7:00 PM to 8:00 PM	48.3	51.8	50.39	
8:00 PM to 9:00 PM	49.9	52.8	51.59	
9:00 PM to 10:00 PM	45.5	49.6	48.02	

Date of Study :	16/09/2023 To 17./09/2023	Night time :	10 PM to 6 AM
-----------------	---------------------------	--------------	---------------

Time(hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	42.5	47.6	45.76	
11:00 PM to 12:00 AM	41.8	45.8	44.25	
12:00 AM to 1:00 AM	40.7	43.2	42.13	
1:00 AM to 2:00 AM	40.2	42.8	41.69	44.96
2:00 AM to 3:00 AM	43.5	44.6	44.08	
3:00 AM to 4:00 AM	44.1	48.2	46.62	
4:00 AM to 5:00 AM	43.0	46.4	45.02	
5:00 AM to 6:00 AM	44.5	48.8	47.16	<u> </u>

um Noise level

L<sub>eq</sub>: Equivalent sound energy

Compiled by : (Signature) Dr. Ajoy Paul

**Envirocheck Seal** Date: 20/09/2023



Certified by : (Signature) Dr. S. B. Chowdhury

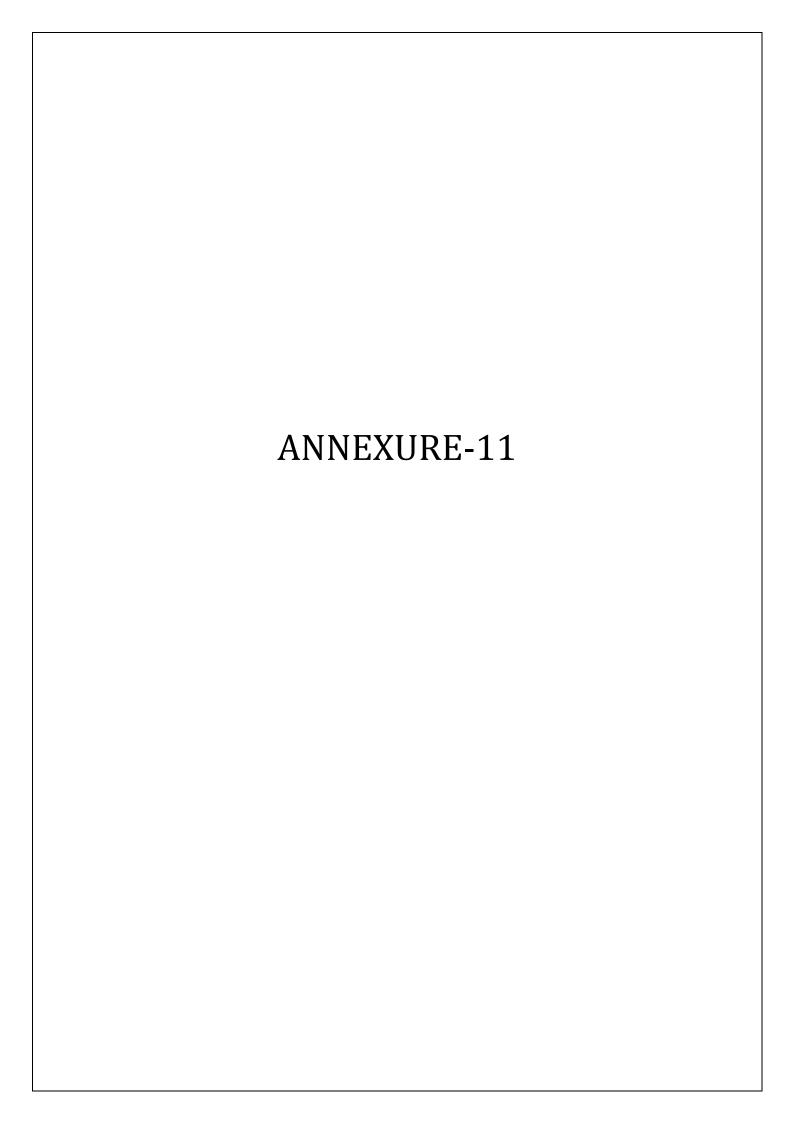
H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ( 033-25792891/25497490, Fax : 033-25299141

Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ( 033-25792889

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FORMAT NO.: ENV/FM/53

#### TEST REPORT

1.	Name of the Industry / Project	:	Bravo Sponge Iron Pvt. Ltd.
2.	Address	:	Vill Mahuda, P.O - Rukni, P.S - Para, District - Purulia, Pin - 723145
3.	Type of Industry	:	Integrated Steel Plant
4.	Sampling Plan & Procedure	:	ENV/SOP/02
5.	Deviation from the Sampling Method & Plan	:	No
6.	Type of Sample	:	Work Zone Noise
7.	Sample ID	:	ENV/17/Sep/(TR)N/I/23-24
8.	Date of Study	:	17/09/2023
9.	Reporting Date	:	20/09/2023
10.	Method No.	:	IS 15575 (Part 2), 2022
11.	Time of Duration of Noise	:	20 Minutes
12.	Height from Ground Level	:	4 feet
13.	Sample Monitoring by		Mr. Kuntal Saha
	RESULT OF NOISE L	EVEL	STUDY Time:10:00 - 10:20A.M

<u>DAY TIME</u>

1. Location : Pallet Formation Area

1. Locat	1. Location : Pallet Formation Area								
Sl. No.	Unit	Minimum	Maximum	Leq	Remarks				
		dB(A)	dB(A)	dB(A)					
01.	dB(A)	62.6	69.3	67.13	East Side				
02.	dB(A)	63.8	66.7	65.49	West Side				
03.	dB(A)	66.9	70.1	68.79	North Side				
04.	dB(A)	67.1	71.0	69.47	South Side				
	Average dB(A) Leg 67.72								

Reviewed By:

Dy. Quality Manager

Approved By:

**Quality Manager** 

>End of Report<

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FORMAT NO.: ENV/FM/53

#### TEST REPORT

1.	Name of the Industry / Project	:	Bravo Sponge Iron Pvt. Ltd.
2.	Address	:	Vill Mahuda, P.O - Rukni, P.S - Para, District - Purulia, Pin - 723145
3.	Type of Industry	:	Integrated Steel Plant
4.	Sampling Plan & Procedure	:	ENV/SOP/02
5.	Deviation from the Sampling Method & Plan	:	No
6.	Type of Sample	:	Work Zone Noise
7.	Sample ID	:	ENV/17/Sep/(TR)N/II/23-24
8.	Date of Study	:	17/09/2023
9.	Reporting Date	:	20/09/2023
10.	Method No.	:	IS 15575 (Part 2), 2022
11.	Time of Duration of Noise	:	20 Minutes
12.	Height from Ground Level	:	4 feet
13.	Sample Monitoring by		Mr. Kuntal Saha

RESULT OF NOISE LEVEL STUDY Time: 10:30 - 10:50 A.M **DAY TIME** 2 Location · DRI Area (100 TPD)

2. Lucati	2. Location : DRI Alea (100 II D)									
Sl. No.	Unit	Minimum	Maximum	Leq	Remarks					
		dB(A)	dB(A)	dB(A)						
01.	dB(A)	67.4	72.9	70.97	East Side					
02.	dB(A)	71.9	73.5	72.77	West Side					
03.	dB(A)	71.6	75.8	74.19	North Side					
04.	dB(A)	70.1	74.2	72.62	South Side					
			Average dB(A) Leg	72.64						

Reviewed By:

Dy. Quality Manager

Approved By:

**Quality Manager** 

>End of Report<

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ( 033-25792891/25497490, Fax : 033-25299141

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: • UAE • Qatar • Netherlands Overseas







FORMAT NO.: ENV/FM/53

#### TEST REPORT

1.	Name of the Industry / Project	:	Bravo Sponge Iron Pvt. Ltd.
2.	Address	:	Vill Mahuda, P.O - Rukni, P.S - Para, District - Purulia, Pin - 723145
3.	Type of Industry	:	Integrated Steel Plant
4.	Sampling Plan & Procedure	:	ENV/SOP/02
5.	Deviation from the Sampling Method & Plan	:	No
6.	Type of Sample	:	Work Zone Noise
7.	Sample ID	:	ENV/17/Sep/(TR)N/III/23-24
8.	Date of Study	:	17/09/2023
9.	Reporting Date	:	20/09/2023
10.	Method No.	:	IS 15575 (Part 2), 2022
11.	Time of Duration of Noise	:	20 Minutes
12.	Height from Ground Level	:	4 feet
13.	Sample Monitoring by		Mr. Kuntal Saha

	-	Time:11:00 - 11:20 A.M						
	DAY TIME							
3. Locat	tion : Cool	er Discharge Area						
Sl. No. Unit Minimum Maximum Leq Remarks								
01.	dB(A)	65.6	70.8	68.94	East Side			
02.	dB(A)	West Side						
03.	dB(A)	68.9	73.4	71.71	North Side			
04.	04. dB(A) 69.2 73.1 71.57 South Side							
			Average dB(A) Leq	70.94				

Reviewed By:

Dy. Quality Manager

Approved By:

**Quality Manager** 

>End of Report<

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Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 [ 033-25792889

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1.	Name of the Industry / Project	:	Bravo Sponge Iron Pvt. Ltd.
2.	Address	:	Vill Mahuda, P.O - Rukni, P.S - Para, District - Purulia, Pin - 723145
3.	Type of Industry	:	Integrated Steel Plant
4.	Sampling Plan & Procedure	:	ENV/SOP/02
5.	Deviation from the Sampling Method & Plan	:	No
6.	Type of Sample	:	Work Zone Noise
7.	Sample ID	:	ENV/17/Sep/(TR)N/IV/23-24
8.	Date of Study	:	17/09/2023
9.	Reporting Date	:	20/09/2023
10.	Method No.	:	IS 15575 (Part 2), 2022
11.	Time of Duration of Noise	:	20 Minutes
12.	Height from Ground Level	:	4 feet
13.	Sample Monitoring by		Mr. Kuntal Saha

RESULT OF NOISE LEVEL STUDY

DAY TIME

Time: 11:30 – 11:50 A.M

4. Location : DRI Area (350 TPD)

T. LUCA	4. Location: Did Arca (550 11 D)						
Sl. No.	Unit	Minimum	Maximum	Leq	Remarks		
		dB(A)	dB(A)	dB(A)			
01.	dB(A)	66.3	72.5	70.42	East Side		
02.	dB(A)	68.4	73.4	71.58	West Side		
03.	dB(A)	70.3	73.8	72.39	North Side		
04.	dB(A)	69.2	72.6	71.22	South Side		
			Average dB(A) Leq	71.40			

Reviewed By:

Dy. Quality Manager

Approved By:

**Quality Manager** 

>End of Report<

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ( 033-25792891/25497490, Fax : 033-25299141

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64.6





#### **TEST REPORT**

1.	Name of the Industry / Project	:	Bravo Sponge Iron Pvt. Ltd.		
2.	Address	:	Vill Mahuda, P.O - Rukni, P.S - Para, District - Purulia, Pin - 723145		
3.	Type of Industry	:	Integrated Steel Plant	2/2/	
4.	Sampling Plan & Procedure	:	ENV/SOP/02		
5.	Deviation from the Sampling Method & Plan	:	No		
6.	Type of Sample	:	Work Zone Noise		
7.	Sample ID	:	: ENV/17/Sep/(TR)N/V/23-24		
8.	Date of Study	:	: 17/09/2023		
9.	Reporting Date	:	20/09/2023		
10.	Method No.	:	IS 15575 (Part 2), 2022		
11.	Time of Duration of Noise	:	20 Minutes		
12.	Height from Ground Level	:	4 feet		
13.	Sample Monitoring by		Mr. Kuntal Saha		
	RESULT OF NOISE I	EVI	EL STUDY	Time :12:00 - 12:20 P.M	

	<u>DAY TIME</u>							
5. Locat	5. Location : SMS Area							
Sl. No.	Sl. No. Unit Minimum Maximum Leq Remarks							
		dB(A) dB(A) dB(A)						
01.	dB(A)	67.1	76.3	73.78	East Side			
02.	dB(A)	66.4	72.6	70.52	West Side			
03.	dB(A)	63.2	71.8	69.35	North Side			

71.3 69.13 Average dB(A) Leq 70.70

Reviewed By:

dB(A)

04.

Dy. Quality Manager

Approved By:

**Quality Manager** 

South Side

>End of Report<

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1.	Name of the Industry / Project	:	Bravo Sponge Iron Pvt. Ltd.		
2.	Address	:	Vill Mahuda, P.O - Rukni, P.S - Para, District - Purulia, Pin - 723145		
3.	Type of Industry	:	Integrated Steel Plant		
4.	Sampling Plan & Procedure	:	ENV/SOP/02		
5.	Deviation from the Sampling Method & Plan	:	No		
6.	Type of Sample	:	Work Zone Noise		
7.	Sample ID	:	: ENV/17/Sep/(TR)N/VI/23-24		
8.	Date of Study	:	17/09/2023		
9.	Reporting Date	:	20/09/2023		
10.	Method No.	:	IS 15575 (Part 2), 2022		
11.	Time of Duration of Noise	:	20 Minutes		
12.	Height from Ground Level	:	: 4 feet		
13.	Sample Monitoring by		Mr. Kuntal Saha		
	RESULT OF NOISE I	EVI	EL STUDY Time :12:30 - 12:50 P.M		

			Time il 2 ibo I ii i					
	<u>DAY TIME</u>							
6. Locat	6. Location : AFBC Boiler Area							
Sl. No.	Sl. No. Unit Minimum Maximum Leq Remarks							
		dB(A)	dB(A)	dB(A)				
01.	dB(A)	68.1	71.3	69.99	East Side			
02.	dB(A)	69.2	72.6	71.22	West Side			
03.	dB(A)	70.3	73.5	72.19	North Side			
04.	dB(A)	67.6	72.1	70.41	South Side			

Average dB(A) Leq

**Reviewed By:** 

Dy. Quality Manager

Approved By:

70.95

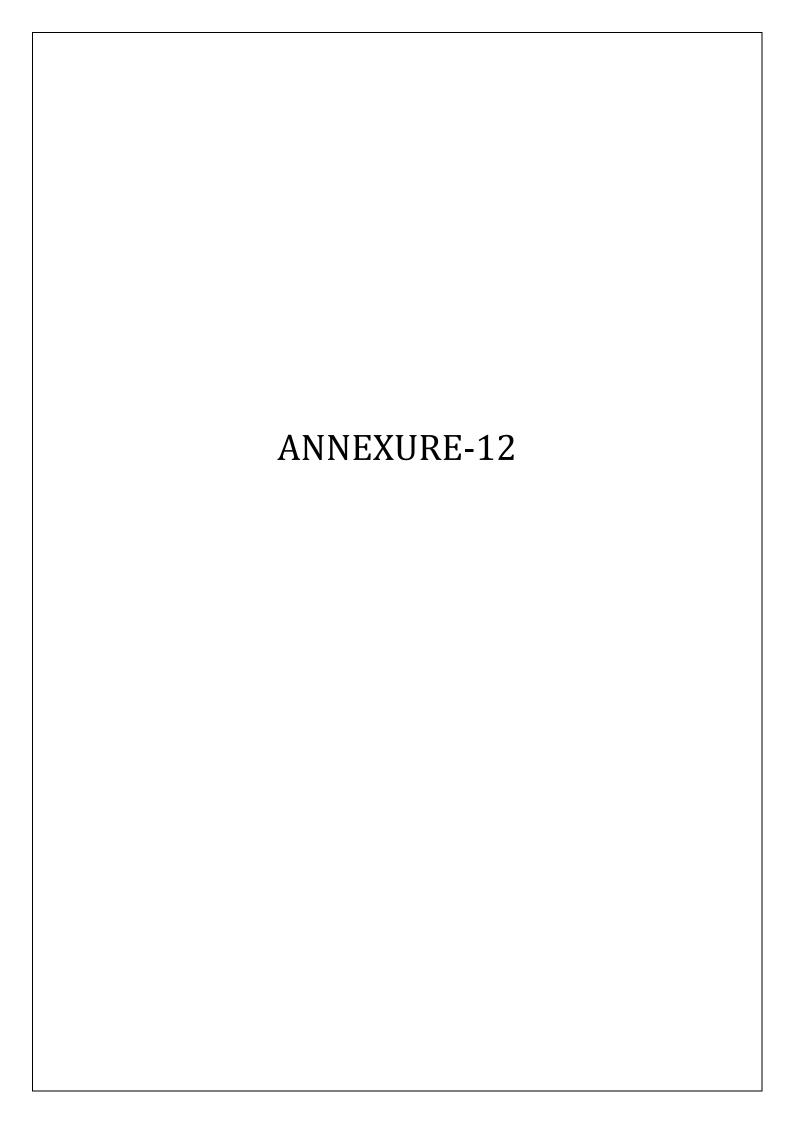
**Quality Manager** 

>End of Report<

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Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ( 033-25792889

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# DRISHTI FIRE BRICKS



Tel. No. : 0341 - 5520414 Mob. No. : 094341-00786 094341-72721, 9832148158

MANUFACTURERS OF HIGH QUALITY REFRACTORIES

Inanpur, P.O. : Digha. P.S. : Neturia Dist. : Purulia (W. B.) , Pin - 723121

Ref. No. CH/16-17/12 RAYO

Date: 01.04.16

#### AGREEMENT

This agreement hereafter referred to as ("the Agreement") made on this the first day of April 2016 by M/S. Bravo Sponge Iron Pvt. Ltd. a company incorporated under the companies Act, 1956 and having its registered office at Mahuda, P.O.-Rukni, P.S.-Para, Dt.-Purulia hereafter referred to as BSIPL (with expression shall unless excluded by or repugnant to the subject or context be deemed to mean and include its successor or successors and permitted assigns)

#### And

M/S. Drishti Fire Bricks, a partnership firm and having its factory at Innanpur, P.O.- Digha, P.S.-Neturia, Purulia-723121 (with expression shall unless excluded by or repugnant to the subject or context be deemed to mean and include its successor or successors and permitted assigns) of the OTHER Part.

Whereas, the First Party offered "Fly Ash" to M/S. Drishti Fire Bricks generated from the proposed AFBC Boiler at the captive Power Plant of BSIPL, The rate of the Fly ash will be decided fortnightly.

Whereas M/S. Drishti Fire Bricks shall arrange to place vehicle for lifting of the Fly ash on daily basis and will pay the freight to the transporter/truck driver as per lorry receipt and at actual being the charges from Unit of BSIPL, Rukni to the unit of M/S. Drishti Fire Bricks. Vehicles carrying Fly ash shall be emptied and release at earliest.

M/S. Drishti Fire Bricks will utilize the Fly ash towards manufacturing of Fly Ash Bricks at its factory at Inanpur.

Period of Agreement: This agreement shall remain in force for a period of 10(ten) years from the date of Commissioning of the proposed captive Power Plant of BSIPL.

Dispute Resolution. That in the event of any dispute of difference between the parties in respect to this Agreement shall be settled by amicable negotiation between the parties failing which the same shall be decided by Arbitration in accordance with provision of Arbitration and conciliation Act, 1966.

In witness thereof the parties here to have executed this above written on the first day of April' 2016

Signed and Delivered by the above

Signed and Delivered by the above

Name: Degn:Partner M/S. Drishti Fire Bricks

Name: Deepak Kr. Agarwal

Degn: Director

M/S. Bravo Sponge Iron Pvt. Ltd.



পশ্চিমৰুজ্গ पश्चिम बंगाल WEST BENGAL

E 505045

#### AN AGREEMENT BETWEEN PURCHASER AND SUPPLIER

This Deed of Agreement is made and entered into on 18th day of September 2018

#### BETWEEN

M/s. Bravo Sponge Iron Pvt. Limited having its plant operation at Vill. Mahuda, Post-Rukni, PS- Para, Dist- Purulia (WB) here in after called THE SUPPLIER as Party-1

#### AND

M/s. Diamond Fly ash Bricks, a non-government organisation having its Office at Purulia, Dubra, Purulia (Tentulhity Road) Pin-723155 here in after called THE PURCHASER as party-2

Whereas M/s Diamond Fly ash Bricks has a Brick Manufacturing Project at Purulia district of West Bengal is willing to take Fly ash of power plant from party no.-1 for brick making purpose.

And whereas The SUPPLIER expresses their desire to enter into an agreement with the PURCHASER for utilization its fly ash in brick manufacturing.

#### NOW THIS DEED OF AGREEMENT WITNESSES THE TERMS AND CONDITIONS AS FOLLOWS:

 That the Agreement shall come into force immediately and shall remain valid for a period of 8 years w. e. f. The date of agreement.

- 2. That this agreement bears no consideration value means it will of FREE OF COST.
- 3. That the SUPPLIER will provide facility to PURCHASER to take the fly ash from its premises and the purchaser will lift fly ash accordingly.
- 4. That the purchaser shall lift the fly ash by his own transportation facilities.
- 5. That the purchaser shall take all possible care to prevent spillage on road during transportation. To avoid spillage lorry will have to cover with tarpaulin.
- 6. That the purchaser will not unload the fly ash other than specified place at his works.
- 7. That the purchaser will have to make water spray on the heap of fly ash during dry weather condition to prevent any further dispersal.
- 8. That the purchaser shall lift a minimum of 30 MT fly ash on daily basis. This condition will not be applied during shut down of the Supplier's plant operation.
- That the Supplier reserves the right to discontinue to provide fly ash to purchaser if at any stage it observes that the purchaser is violating the terms and conditions of this agreement.
- That during any Force Majeure condition which is beyond the control either parties the condition of this agreement shall not be applied.
- 11. That if any dispute arises among parties in connection with or under this Agreement between the Parties hereto, the matter shall be referred to the Executive Director-Corporate or to an Officer designated by him and if it is remain unresolved the matter will under jurisdiction court at District Purulia (WB).

Signed on the 18<sup>TH</sup> day of <u>SEPTEMBER 2018</u> for and on behalf of the Supplier and Purchaser as follows:

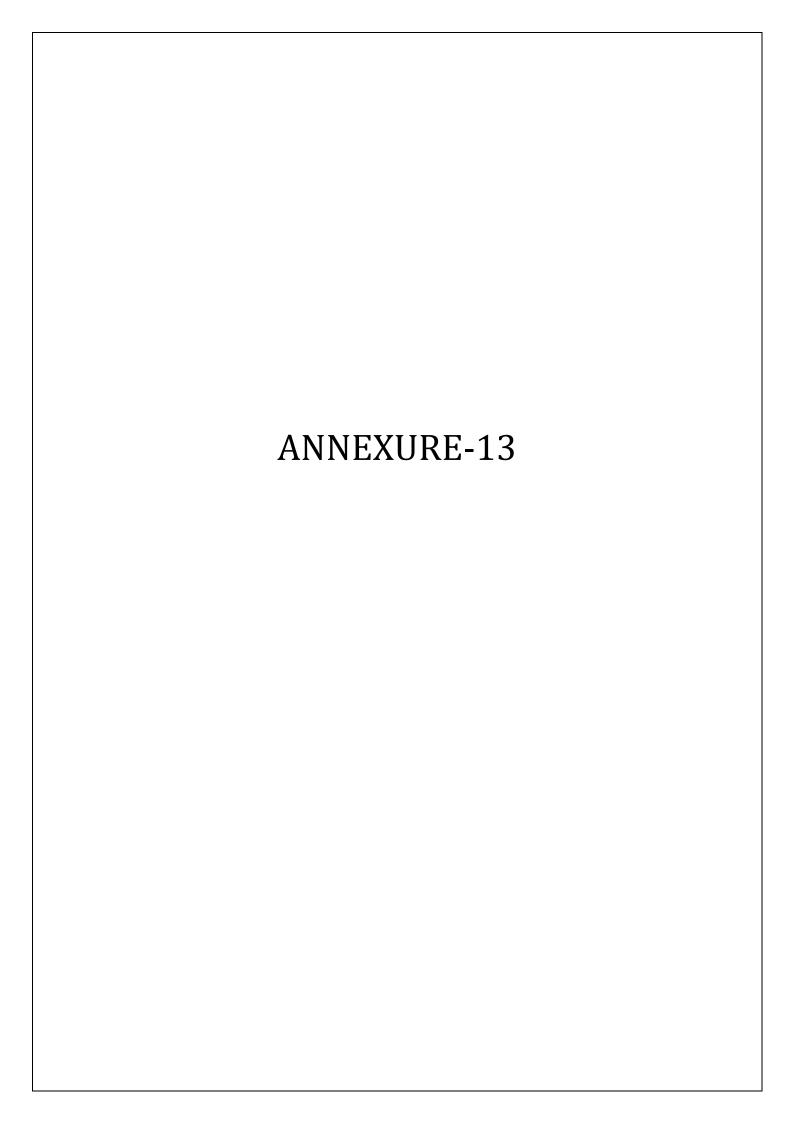
Supplier

Bravo Stronge Iron Pvt. Ltd.

Authorized Signatory

PURCHASER

Proprietor



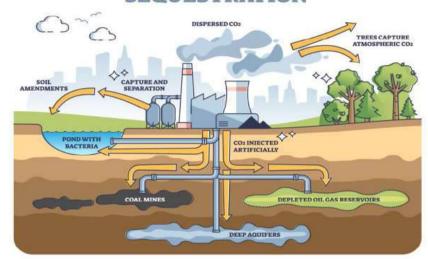
## Bravo Sponge Iron Pvt. Ltd.







#### CARBON SEQUESTRATION









## **GHG STUDY (CARBON FOOTPRINT)**

Located at

Village: Mahuda, P.O.: Rukni, District: Purulia, West Bengal-723145

#### Introduction

In 2015, the global response to the threat of climate change took a step forward when 190 nations adopted the Paris Agreement. In 2019, the United Nations announced that over 60 countries including the United Kingdom and the European Union (with the exception of Poland) had committed to carbon neutrality by 2050. Moreover, some nations have pledged to work toward earlier dates. Together, these agreements have led to growing pressure to pursue decarbonization across all industrial sectors.

India's Nationally Determined Contribution (NDC's) primarily targets by 2030 a reduction in the emissions intensity of Gross Domestic Product (GDP) by 33 to 35 percent; achieving about 40 percent installed power capacity from non-fossil fuel-based energy resources; energy efficiency; and creating an additional carbon sink of 2.5-3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover.

Steel is one of the core pillars of today's society and, as one of the most important engineering and construction materials, it is present in many aspects of our lives. However, the industry now needs to cope with pressure to reduce its carbon footprint from both environmental and economic perspectives. Currently the steel industry is among the three biggest producers of carbon dioxide, with emissions being produced by a limited number of locations; steel plants are therefore a good candidate for decarbonization. While the industry must adapt to these new circumstances, it can also use them as a chance to safeguard its license to continue operating in the long term.

The direct CO2 intensity of crude steel production has been relatively constant in the past few years. In contrast, in the Net Zero Emissions by 2050 Scenario it falls an average 4% annually between 2020 and 2030. Achieving this reduction and maintaining it after 2030 will not be easy. Potential for energy efficiency improvements will likely soon be exhausted. Thus, innovation in the upcoming decade will be crucial to commercialise new low-emissions processes, including those that integrate CCUS and hydrogen, to realise the long-term transformational change required. Governments can help by providing RD&D funding, creating a market for near-zero-emissions steel, adopting policies for mandatory CO2 emissions reductions, expanding international co-operation and developing supporting infrastructure.

In this report, the carbon footprints from different factors of SPS Steels Rolling Mills Limited will be determined and the carbon sequestration data from the unit will be accessed to have an insight on annual carbon emissions from the unit. This report also provides measures to further reduce the carbon emissions from the unit through implementation of new cleaner technological advances and sustainable environment methods.

#### **Carbon Footprint**

Carbon footprint (CF) is used to measure the impact of human activities on natural ecosystems, the relative size of human consumption on ecosystems, and it emphasizes on the effect of carbon emission of human energy activities on atmospheric environment. Based on different industries, different levels have been formulated and different greenhouse gases have been considered. Six kinds of greenhouse gas emissions such as CO2, CH4 and N2O produced by human activities in the country have been estimated. The carbon footprint is characterized in three levels: the first level comes from the direct carbon emissions of the institution itself; the second level expands the boundary to the direct carbon emissions of the Department that provides the energy sector; the third level includes the direct and indirect carbon emissions of the whole life cycle of the supply chain.

Based on production data of SPS Steels Rolling Mills Limited and CO2 Emission Factors for steel industry (Source: Report on Greenhouse Gas Emissions from Major Industrial Sources –III Iron and Steel Production by International Energy Agency and USEPA;), the CO2 emissions are calculated and carbon footprints are tracked in the unit. Following is the carbon emission calculations from Eloquent Steel Pvt Ltd based on the emission factors.

#### 1. Sponge Iron Unit (DRI)

Following table shows the CO2 emissions from operation of the DRI units.

Unit	Production (TPA)	Emission Factor (ton CO2/Ton of steel)	CO2e Emissions of the plant (TPA)
DRI (3x100 TPD & 1x95TPD)	1,38,000	0.7	96,600

<sup>\*</sup> Emission Factor based on 2006 IPCC Guidelines for National Greenhouse Gas Inventories

#### 2. Induction Furnace

Following table shows the CO2 emissions from the operation of 2x15 T Induction furnace.

Unit	Raw Materials	Quantity (TPA)	Carbon Content (W/W)	Total Carbon (TPA)	Carbon Retained in Billet (TPA)	Carbon Burnt (TPA)	CO2e Emissions of the plant (TPA)
	Pig Iron	18,958	0.04	758			
SMS	Sponge Iron	86,625	0.02	1,733	297	2 600	9,901
SIVIS	Ferro Alloys	194	0.02	4	291	297 2,698	9,901
	Scrap	12,505	0.04	500			

#### 3. Pellet Plant

Following table shows the CO2 emissions from the operation of 1x0.85 MTPA Pellet Plant.

Configuration	Production Capacity	Emission Co-efficient	CO2e Emission of the plant (TPA)
1X0.85 MTPA	8,50,000	0.03	25,500

#### 4. Captive Power Plant (5 MW WHRB & 5 MW AFBC)

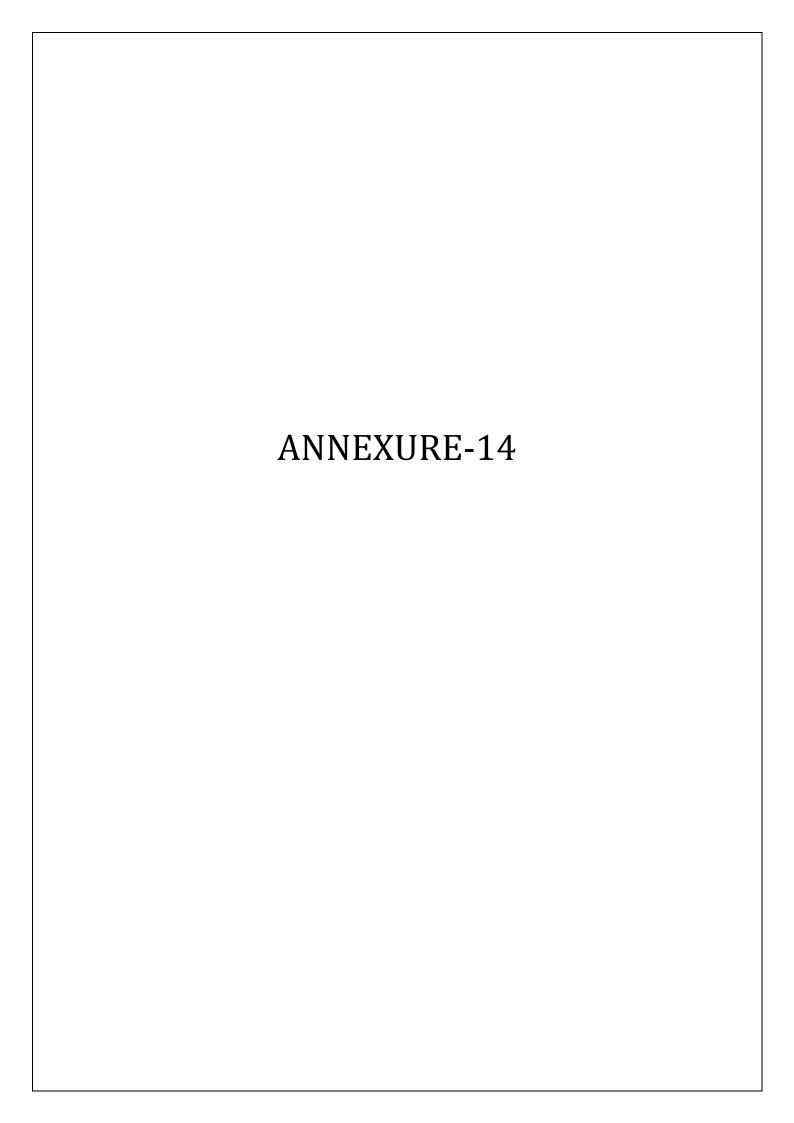
To meet the power requirement 5 MW of AFBC boiler is being operating. Dolochar produced as a by-product from the existing DRI units will be fully utilise as a fuel in proposed AFBC Boiler and coal will be used as fuel in AFBC boiler as per requirement of power.

Following table shows the CO2 emissions from the AFBC boiler during the operation.

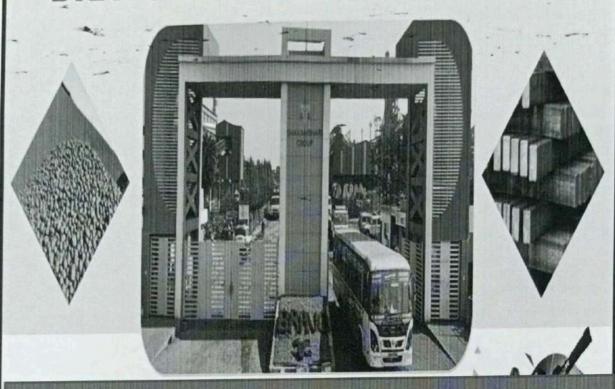
Required Fuel	Quantity TPA	Carbon Content (W/W)	Combustion Rate	CO2e Emissions of the plant (TPA)
Coal	22,177.50	0.67	95%	51,805
Dolochar	26,552.00	0.25	95%	23,143
	Total (	74,948		

Thus, the cumulative CO2e emitted from the existing project is 119,949 tons CO2e/Annum.

(Reference Point: Source: Report on Greenhouse Gas Emissions from Major Industrial Sources —III Iron and Steel Production by International Energy Agency and USEPA; Technical Support Document for the Ferroalloy Production Sector: Proposed Rule for Mandatory Reporting of Greenhouse Gases;)



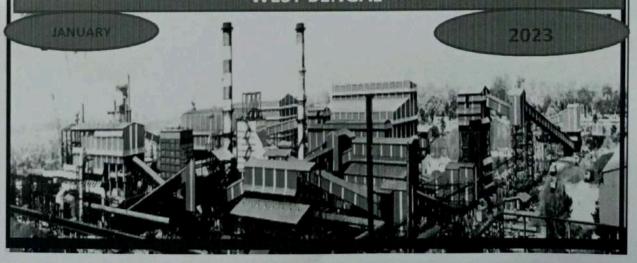
# BRAVO SPONGE IRON PVT LTD



## RISK AND DISASTER MANAGEMENT PLAN

**BRAVO SPONGE IRON PVT. LTD** 

VILL: MAHUDA, PO: RUKNI, PS: PARA DIST: PURULIA, PIN CODE:723145 WEST BENGAL





Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



## Risk and Disaster Management Plan

L NO.	DESCRIPTIONS	PAGE NO.
1	Introduction -	2
2	Organization Structure	3
3	Manpower and working shift	4
4	Nature of Hazards	4
5	Process Description	5
6	Inventory of Raw Material and Hazardous Waste	6
7	Onsite Emergency Plan	7
8	Identification of Hazards	8
9	Key persons and their role	9
10	Action Plan for Risk & Disaster Management	12
11	Facilities for on-site emergency plan	14
12	Disaster Management Plan (DMP)	16
13	Emergency Command Structure	18
14	Emergency contact numbers	20

Duly bigned by Hanger-sefery



Vill: Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



#### Risk and Disaster Management Plan

#### Introduction:

The project site of M/s Bravo Sponge Iron Pvt. Limited (BSIPL) is located at Village-Mahuda, PO-Rukni, District-Purulia in the state of West Bengal having Latitude: 23° 32' 53.25" N & Longitude: 86° 32' 49.45" E.

Project site of BSIPL is well connected by road and rail. The nearest railway station is Rukni which about 1 km from project site.

The last two decades have seen many technological innovations that have contributed to automated, more reliable and cost effective safety management techniques, equipment and systems. Responsiveness & competence needs to be created among the Indian industry about tools & methodologies of safety techniques to understand and mitigate the hazards they are dealing with on a day-to-day basis, and create a safe working environment, for its own machinery, employees and community around. The code of practice on safety management system will be very useful for engineering industries in order to eliminate hazards and for providing safe work environment to employees.

The safety and protection of people, equipment's and the environment is a serious concern in the Engineering industries. Many industries have recognized the advantages of Safe Work Environment and are progressively adopting Safety Management System to prevent hazardous events, avoid production & manpower losses and other fallouts associated with industrial accidents. Safety management system also assists industries to enhance employee knowledge of operations, improve technical procedures, maintain accurate process safety information and increase overall facility productivity.

#### GENERAL INFORMATION ABOUT THE FACTORY:

M/s. Bravo Sponge Iron Private Limited (BSIPL) Ltd. was originally incorporated on 14th February 1997 and started making sponge iron since 2003. In June 2015 it has been taken over by Shakambhari Group who is having a vast experience in the line of steel manufacturing.

#### Presently, the company is having following facilities in operation:

- · 3 x 100 TPD DRI kilns
- 1 x 95 TPD DRI Kiln
- · 2 x 15 T Induction Furnace with CCM
- 10 MW capacity power Plant
- 1 x 0.8 MTPA Pellet plant with grinding facility.
- 6 x 4000 Nm3 Producer Gas Plant

#### Following projects are under implementation:

- 1 x 0.8 MTPA Pellet Plant
- 1 x 350 TPD DRI Kiln with WHRB
- 6 x 4000 Nm3 Producer Gas Plant
- 13.9 MW Capacity power plant

#### Further following facilities are to be implemented in due course of time;

- 2 x 15 T + 3 x 25 T Induction Furnaces with CCM
- 1000 TPD Rolling Mill

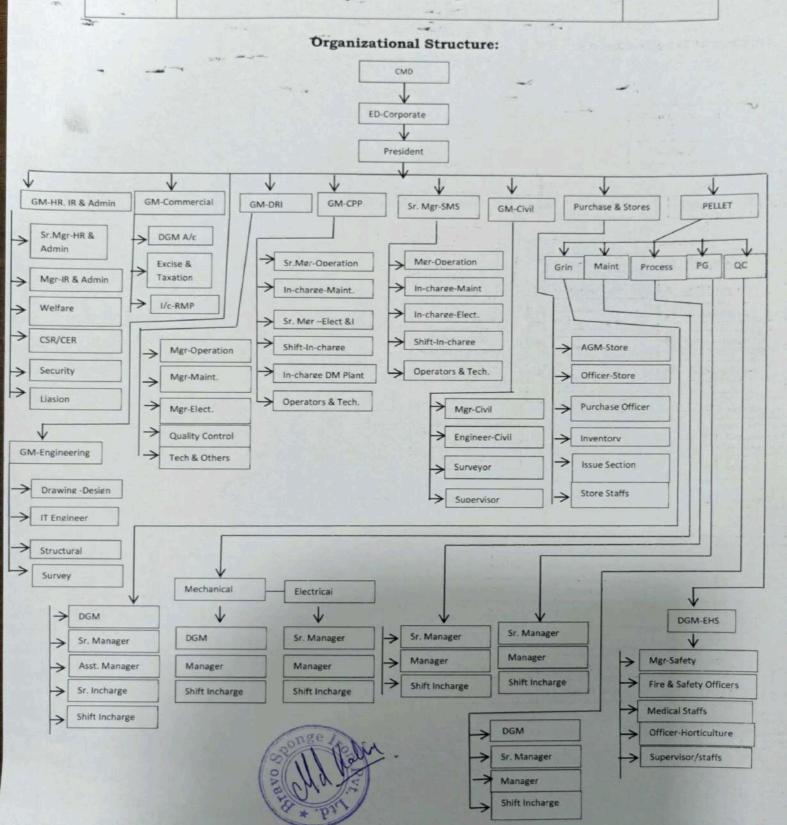




Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia,(West Bengal)



### Risk and Disaster Management Plan





Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



## Risk and Disaster Management Plan

#### Man Power

Maximum number of persons available in the plant at any point of time is as follows:

## Persons working under various shifts

SL. NO.	SHIFT	PERIOD	AVERAGE EMPLOYMENT/DAY
154-00	A	06:00-14:00 Hrs	184
2.	В	14:00-22:00 Hrs	305
3.	С	22:00-06:00 Hrs	244
4.	G	09:00-18:00 Hrs (Lunch Break: 13:00-14:00 Hrs)	312
CONTRACTOR OF STREET		Total	1045

Depending on requirements employees are called in different shifts and few employees are called on duty during national/festival holidays and off days.

#### Nature of Hazards in BSIPL

A steel industry is hazardous by its very nature. The nature of various hazards in BSIPL Plant is detailed below:

Hazards	Source
Fire Hazard.	Spillage of Fuel, CO gas
Explosion due to spillage of hot metal during water contact.	Spillage/Transfer of hot metal, or liquid steel.
Heat radiation due to hot metal handling.	Spillage of liquid metal, hot steel and hot slag.
Accidents due to failure of material handling during lifting & carrying equipment/material.	Connected with all material handling equipment's through EOT cranes.
Accidents due to failure of high pressure steam water or oil lines.	AFBC and WHR Boilers.
Release of co gas	PGP, Furnace





Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia,(West Bengal)



#### Risk and Disaster Management Plan

### PROCESS DESCRIPTION (In Brief)

### > DRI

Sponge iron is manufactured through the coal-based route in which iron ore in converted into Sponge Iron or directly reduced iron in a rotary kiln using coal both as reductant and fuel.

Rotary kiln unit comprises of raw materials storage bins, rotary kiln, rotary cooler, product screening and magnetic separation units, After Burning Chamber and inplant dedusting system.

Iron ore and coal, after proper sizing in the respective crushing and screening stations as well as sized dolomites are feed to the raw material day bins for kiln.

With the rotation of the kiln, the charge moves down the slope and the surface of material is exposed to heat and reducing atmosphere. The reduction from iron oxide to iron occurs by a gradual removal of oxygen at various temperatures under the controlled reducing atmosphere giving rise to various intermediate oxides.

Hot sponge iron is discharged from the kiln-discharge end and taken into the rotary cooler. The sponge iron after cooling is discharged through the cooler discharged chute into a heat resistant belt conveyor and carried into the product processing building. The product (Magnetic in nature) is screened and separated from char, which is not magnetic.

The gas generated, during the process, contains fine carbon particles, carbon monoxide ash dust which are separated and waste heat associated with gas is recovered in WHRB from which power is generated.

#### > STEEL MELTING SHOP (SMS).

In the SMS section scrap and pig iron are charged in Induction Furnace along with DRI in which heat is applied by induction heating and melted by electrical eddy current in a crucible placed in a water cooled alternating current solenoid coil. After achieving the desired composition and temperature, slag is scooped out from the top of hot metal and hot metal is poured into transfer ladle crucible and sent to CCM after addition of requisite amount of Ferro alloys. Induction furnaces are provided with matching billet casters. In CCM liquid steel is casted to billets.

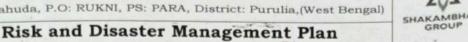
#### > ATMOSPHERIC FLUIDIZED BED COMBUSTION BOILER (AFBC ):

In AFBC boiler coal is crushed to a size of 1 — 10 mm depending on the rank of coal, type of fuel feed into the combustion chamber. The atmospheric air, which acts as both the fluidization air and combustion air, is delivered at a pressure and flows through the bed after being preheated by the exhaust flue gases. The velocity of fluidizing air is in the range of 1.2 to 3.7 m /sec. The rate at which air is blown through the bed determines the amount of fuel that can take part in reaction.

Almost in all AFBC bubbling bed boilers use in bed evaporator tubes in the bed of limestone, sand and fuel for extracting the heat from the bed to maintain the bed temperature. The bed depth is usually 0.9 m to 1.5 m deep and the pressure drop averages about 10mm of water per cm of bed depth. Very little material leaves the bubbling bed — only about 2 to 4 kg of solid is recycled per ton of fuel burned (AFBC).



Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)





The combustion gases pass over the super heater sections of the boiler, flow past the economizer, the dust collectors and the air pre heaters before being exhausted to atmosphere. The main special feature of atmospheric fluidized bed combustion is the constraint imposed by the relatively narrow temperature range within which the bed must be operated. With coal, there is risk of clinker formation in the bed if the temperature exceeds 950°C and loss of combustion efficiency if the temperature falls below 800°C. For efficient sulphur retention, the temperature should be in the range of 800°C to 850 °C.

AFBC at Bravo generates super-heated steam at 110 kg/cm² and 540 °C

#### WASTE HEAT RECOVERY BOILER:

Production of sponge iron in DRI kiln generates huge quantities of hot flue gases carrying considerable sensible heat. The energy content of these gases is effectively used to generate electric power as well as steam for meeting various process requirements. Thus a WHRB (Waste Heat Recovery Boiler) power plant is an ideally suited proposition to effectively make use of this waste gas. This WHRB Power plant not only make the plant independent of external source of electric power to some extent but also result in energy conservation and environment protection. The waste heat from 04 nos. DRI Kilns bearing temperature approx. 950°c taken in to WHRB attached with respective kilns for heat recovery and steam generation. These 04 nos. of WHRB generate approx. 32 ton heat and 08 MW power for use in plant operation.

#### > Producer Gas Plant (PGP):

Producer gas is a mixture of gases that contain carbon monoxide gas, carbon dioxide gas, nitrogen gas, and hydrogen gas. From these gases, carbon monoxide gas and hydrogen gas are combustible gases. While carbon dioxide and nitrogen gases are non-combustible gases.

Producer Gas is formed in the cylindrical Vessel. The diameter of this cylindrical Vessel is around 3 m and the height is around 4 m. The coal is added from the upper zone known as the pre-heated zone with the help of a cup and cone. The lowest zone of these vessels is known as the ash zone. The inlet is attached from this ash zone. This inlet carries the oxygen gas and steam gas to the upper zone (oxidation zone) also known as the combustion zone. The coal is heated in the presence of these oxygen gas and steam gas. In the oxidation zone, the carbon reacts with oxygen and forms the carbon dioxide and carbon monoxide gas as a product of combustion. The third zone is known as the reduction zone. In this reduction zone, the steam reacts with the carbon and produces carbon monoxide gas and hydrogen gas as a product of combustion. In the pyrolysis zone, the produced gas passed through this zone and heated at even higher temperature and released out from the outlet.





Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



#### Risk and Disaster Management Plan

#### Pellet Plant:

Pelletizing is a process which involves mixing of very finely ground particles of iron ore fines having a size which is less than 200 mesh (0.074 mm) with additives like bentonite and then shaping them into near oval/spherical balls having size in the range of 8 mm to 16 mm in diameter by a pelletizer and hardening the balls by firing with fuel/gas. It is an agglomerating process of converting iron ore fines into uniformed sized iron ore pellets' which can be charged directly into a rotary kiln or into a vertical furnace.

#### > INVENTORY OF RAW MATERIALS

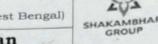
The inventories of raw materials used in the process are listed in the table below, which gives details of material stored. It contains maximum one month storage for each substance in process and transferred to day tanks to meet daily consumption, it is because day tanks are connected to unit where it is consumed.

#### MAXIMUM STORAGE OF CAPACITY OF RAW MATERIALS

SL.	Operating Unit	RAW MATERIALS	MAX. STORAGE CAPACITY (Metric tons per month)					
The last	Walk Library	Iron Ore/Pellet	25,000MT					
1.	Sponge Iron Plant	Coal	12,427MT					
		Dolomite	621MT					
		Sponge iron	500MT					
	I I di B	Pig iron	600MT					
2.	Induction Furnace	MS Scrap	500MT					
		Ferro Alloy	100MT					
3.	Captive Power Plant (WHRB based)	Waste heat recovery type boilers are installed electrical power generation, No raw material required.						
-	Captive	Dolachar	2700MT					
4.	Power Plant (AFBC boiler based)	Coal fines	100MT					
Till de		Diesel	450 KL					
		PCI coal	1000MT					
5.	Pellet Plant	Bentonite	2000MT					
		Pellet	1 LAKH MT					
		Filter cake	20.000 MT					
H		Iron ore fines	150.000MT					
6.	PGP	Coal	3500MT Songe					



Vill: Mahuda, P.O. RUKNI, PS: PARA, District: Purulia, (West Bengal)



### Risk and Disaster Management Plan

#### > INVENTORY OF HAZARDOUS SUBSTANCES.

The inventory of Hazardous materials is mentioned below:

SI No.	- Name Of Hazardous Substances	Maximum Storage Capacity				
1	HSD for AFBC and for DRI kiln cold start up (Under Ground).  As per norms of "explosive authority"	1 X 20 KL				
- 41		2 X 250KL				
2	DIESEL OIL (HSD) ALL M S VERTICAL TANK PLACED	2 X 25KL				
	ALL M S VERTICAL TANK PLACED	1 X 8 KL				

#### ONSITE EMERGENCY PLAN

Onsite and Offsite disaster preparedness and emergency management plan including risk assessment and damage control.

In a steel plant, the steel making process involves a number of hazardous processes starting from raw material handling, melting of iron ore, and converting iron into steel till the finished products. Also, the by-product plants, captive power plant, utilities & other auxiliary plants use considerable amount of combustible materials and these materials are stored in bulk storages like tanks, cylinders, drums, and gas holders etc., installed in the plant posing major risks.

Bursting of high pressure steam lines or BFW lines can also cause series of accidents and to prevent that periodic NDT and maintaining record timely action is necessary.

The detailed study with concern to various possible hazards and their associated processes & equipment's has been identified. The list of this identified hazardous equipment in the plant is given in the following pages. The potential hazards from the above identified equipment and from the various hazardous operations/processes in the plant have been analyzed and the possible causes for occurrence of such hazards, likely consequences and the remedial action required are recommended.

#### **Emergency Action Plan:**

Emergency Planning begins with the identification and assessment of the principal hazards which are normally fire, explosion and toxic release. With the growing complexity of the process plants, more systematic and searching methods for risk identification and quantification have been developed over the years. Generally the emergencies that occur in process plants are classified into two categories. The one whose effects remain within the boundary limits of the plant is known as On-Site Emergency and the one where the effects go beyond the boundary limits is known as Off-Site Emergency. In BSIPL, the requirements of the On -Site Emergency Plan are addressed due to fire hazard only.

This On-Site Emergency Plan is prepared for Bravo Sponge Iron Pvt. Ltd in accordance with the guidelines provided by the Ministry of Environment & Forests



Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



#### Risk and Disaster Management Plan

& Climate Change (MoEF & CC), Govt. of India, covering the various hazardous processes and the bulk storages of hazardous materials, toxic gases etc., in different departments.

#### HAZARD IDENTIFICATION AND DETAILS OF PROPOSED SAFETY SYSTEMS Identification of Hazards

Hazard is in fact the characteristics of a system/plant/storage that presents potential for an accident and risk is the probability of occurrence for hazard. Hence; Hazard identification is of prime significance for the quantification of risk and for cost -effective control of accidents in any industrial installation. Various techniques of predictive hazard evaluation and quantitative risk analysis suggest identification of hazard has very important role in estimation of probability of an undesired event and its consequences on the basis of risk quantification in terms of damage to personnel, property and environment.

Hazards are mostly manifested in the form of fire/ explosion/ toxic release. Each anticipated hazard scenario associated in the unit is described along with its assessment of impact on plant and locality in the following table:

#### ANTICIPATED HAZARD SCENARIO:

Type of Hazard	Areas	Preventive / Mitigation measures
Pool fire/ ball fire	HSD Storage Tank	Dyke wall is provided around the HSD tank. Regular monitoring being done to check out the leakage/spillage if any. Fire protection measures (Foam Trolley, DCP extinguishers and hydrant system) are provided. Area is as "No Smoking Zone" de marked.  Dyke wall is provided around the MS vertical tank. Regular monitoring being done to check out the leakage/spillage if any. Fire protection measures (Foam trolley, DCP extinguishers & hydrant system) are provided. Area is as "NO SMOKING ZONE" de marked.
Dust	Raw material  handling  & storage yard	Raw materials are transported in the trucks with tarpaulin covers. Raw materials are kept on concreted land with tarpaulin cover. Water sprinkling facility is provided for dust suppression during material handling in the yard. Conveyor belts used for raw material feeding and carrying finished goods are properly covered. PPEs like nose mask, duster cloth, safety helmet, safety shoes and safety goggles are provided to persons, deployed for working in this area.
Noise	Turbine Generator hall, Blower house, Air compressor house, DG & Pump houses.	Equipment's are suitably covered in building with adequate ventilation to attenuate the noise level against outside exposure and area keeps generally unmanned, however working personnel are provided with suitable ppes like ear plugs and ear muffs during inspections.



Vill: Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



### Risk and Disaster Management Plan

Heat Exposure	SMS, CCP, DRI, PELLET PLANT, & PGP	Providing proper PPE like leg guards with safety shoes, Face shield, leather hand gloves, Leather Aprons, safety helmets etc. Thermal insulation for steam line. Providing fans, air blower and showers etc.
Acid exposure	LABS; DM Plant, Pellet plant, SMS and DRI	Acid and Base used are being kept on isolated place with proper leveling. Personnel handling these chemical being well equipped with PPEs like rubber hand gloves, apron, nose mask, face shield/safety goggles, safety shoes etc. Once any person gets exposed to acid or base the affected parts are thoroughly washed with cold water and necessary first/medical aid is given to the injured person.
CO Gas	PGP & Pellet plant	To effectively control and prevent hazards, all employees are trained periodically and continue monitor with updated devices such detectors & Alaram system.  Develop plans with measures to protect workers during emergencies and non-routine activities.  All the employees & workers are well equipped with PPEs such portable Co detector, Oxygen breathing apparatus, face guard, suitable gloves, aprons, mask.  First aid box mounted in control room with emergency contact numbers.  Suitable fire extinguishers are placed in all platforms & control room.

#### IDENTIFICATION OF MOST CREDIBLE HAZARD SCENARIOS

All the anticipated hazard scenarios associated with the factory (as listed above) are critically analyzed and identified credible scenario is pool fire/ball fire if the HSD comes in contact with flame or it may auto ignite at 225 deg. C temperature.

Flash point of HSD is 66°C and it is not a flammable liquid. Tank fire spreads vertically taking a conical shape due to rush of air from all directions, since the suitable firefighting system are provided to control emergency situations. On the basis of above consideration, the pool fire due to fire hazard in the storage tank is not considered as most credible scenario.

Tank fire may be caused by lightening, but when tank leaks or overflows due to mal operation of instruments or negligence of operator and liquid gets ignited by chance; then this may be treated as a large pool fire and dealt as a common fire.

But in case of disaster due to natural calamities a disaster management team will come to action.





Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)

### Risk and Disaster Management Plan



KEY PERSONNEL

Key personnel are the directed and nominated people, each having specified responsibilities as a part of a coordinated plan.

The main key personnel are:

- · Works Main Controller.
- · Works Incident Controller.
- · Site Incident Controller.
- · Other key personnel who have the key role to play are senior personnel from all sections e.g. production, maintenance, laboratory, medical, transport, safety, security etc.

### ROLE OF KEY PERSONS

Works Incident Controller (WIC)

The Works Incident Controllers are the departmental heads of respective divisions for DRI, CPP, Pellet plant, PGP and SMS whose duties include the direction of the efforts and lead to onsite emergency response team to control the situation. Since in the initial stages of emergency, the Works Incident Controller may be called on to take decisions involving the operations of other plants, it is necessary for the person selected to have a thorough knowledge of the overall works situation.

The person working as shift in-charge/manager i. e., an individual having overall control of the works processes for a shift shall work in the authority of WIC when the Works Incident Controller (WIC) may be off-site or affected by the emergency.

### Site Incident Controller (SIC)

He will be available at the factory or in the colony nearby. At any point of time and on being informed about an accident, he has to:

- Intimate the Works Main Controller (WMC) and proceed to the emergency site.
- > Take the necessary information from Combat Team Leader (CTL), assess the situation and call Rescue Team Leader (RTL) and Auxiliary Team Leader (ATL).
- > Inform Works Main Controller (WMC) regarding the situation.
- > Take necessary steps and provide guidance to Combat Team, Rescue Team, and Auxiliary Team Leaders to mitigate the emergency situation.
- > Examine for major emergency shutdown operation activities, decide safe escape route and announce for evacuation to Assembly Point.
- Inform Works Main Controller (WMC) about the status of the situation at regular intervals.

### Works Main Controller (WMC)

The Works Main Controller is the President of the unit and is generally available in the factory or reside in the nearby except on tours. On emergency, he can reach work site at any odd hour within 45 minutes time. In his absence, GM at Plant shall take up his charge as Works Main Controller (WMC) Ha Kalin



Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia,(West Bengal)

#### Risk and Disaster Management Plan



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In the major situation, decisions will have to be taken by Works Main Controller (WMC) by collaboration with the senior managers at works which may affect the whole or a substantial part of the works and senior officers of the outside services as per site situation.

After getting informed of an emergency situation WMC will rush to the emergency site, collect all information from SIC and,

- Decide if emergency is to be declared and advise Site Incident Controller (SIC) accordingly and reach Emergency Control Room (ECR).
- > Take decision to shut-down the plant if necessary to take up repair and other combating measures.
- Advise Rescue Team Leader (RTL)/Security Gate to blow the siren with appropriate code for declaration of emergency.

#### **EMERGENCY SIREN MEANS**

#### "Twenty Seconds with a pause of Five Seconds for 5 times"

- > Advice Auxiliary Team Leader (ATL) for communication to statutory authorities and for mutual aid as required.
- > Through Auxiliary Team Leader (ATL) shall ensure constant communication to statutory authorities and to mutual aid partners as required.
- Maintain continuous communication with Site Incident Controller (SIC) to review the situation and assess the possible course of action for emergency operations.
- > To declare normalcy at the end of operation and advise Rescue Team Leader (RTL)/Security Gate to blow "all clear siren"

#### All Clear Siren will be blown for 1 minute continuously.

Ensure the record keeping of emergency operations chronologically.

#### **ESSENTIAL PERSONNEL**

The Works Incident Controller/Main Controller will be supported by a Task Force of suitably trained people. The nature of essential works to be performed is:

- · Shutdown of Plants
- Isolation, repairing of the affected equipment /pipeline etc.
- First Aid, and removal of the injured persons to hospital.

#### COMBAT TEAM LEADER

He is the leader to attend to the emergency and is available in the factory or in the colony at any instant.

On being informed about an accident, he has to:

> Immediately rush to the site and lead the rescue team to control the situation.



Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia,(West Bengal)



#### Risk and Disaster Management Plan

- Inform Site incident controller (SIC) about the incident and request him to rush to the spot.
- Give the necessary instructions to the rescue team to combat the situation
- Co-ordinate the activities of team members and combat the emergency, so as to eliminate the root cause of the hazard.
- > To arrest the leakage and spillage from various equipment, shut down the concerned equipment.
- > Take necessary action to remove unwanted persons from the site of the incident.
- Keep informed about the developments to Site Incident Controller (SIC).

#### RESCUE TEAM LEADER

He is the person who conducts rescue operations and should be available at any instant. On receiving the information about the incident he has to:

- Rush to site of emergency through safe route.
- Ensure presence of all his team members, availability of firefighting facilities and take necessary action to arrest the fires/leakage of gas.
- > Arrange for safe escape of entrapped persons.
- Make necessary arrangements to send the affected persons for immediately medical attention through the medical officer.
- > Search for the missing persons on the basis of roll call taken by Auxiliary team leader (ATL).
- Give the feedback to the site incident controller (SIC) about the developments.

#### **AUXILIARY TEAM LEADER**

He is the communication manager for the crisis management. On being informed of the emergency, he should proceed to Emergency Control Room (ECR) and:

- > Keep in constant touch with works main controller (WMC) and Site Incident Controller (SIC).
- Inform the Statutory Authorities and District Administration.
- Communicate to mutual Aid Partners, Fire service stations at Raghunathpur/Santaldih and Purulia fire station, if required.
- Send communications to District Hospital Purulia for rendering services.
- Inform the relatives of causalities and send them to their residence or hospital as necessary requirement.
- > Take care at site visit of the statutory authorities at the spot.
- Give feed back to work main controller (WMC) about the status with respect to his areas of concerns activity.



Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia,(West Bengal)



## Risk and Disaster Management Plan

## ACTION PLAN FOR RISK AND DISASTER MANAGEMENT

STEP	INITIATOR	ACTION TO TAKE							
1.	The person noticing the emergency	<ul> <li>Inform to Emergency Control Room i.e; Security Main Gate and concerned Shift-in—charge of area. Emergency Control Room (ECR) emergency call to Combat Team Leader to rush the spot with the team to fire fighting.</li> </ul>							
2.	Combat team Leader (CTL)	<ul> <li>Inform to Site Incident Controller (SIC) to know the actual spot and rush to spot area and organize his team to control the undesired event.</li> <li>Take charge of the situation and put down the emergency by extinguish fire through firefighters.</li> <li>To start combating, shut-down equipment's, arrest the leakage of gas/fire.</li> </ul>							
3.	Site Incident Controller (SIC)	<ul> <li>Inform works Main Controller (WMC) and rush to emergency site.</li> <li>Discuss with Combat Team Leader (CTL), assesses the situation and call the Rescue Team Leader (RTL) &amp; Auxiliary Team Leader (ATL).</li> <li>Organize the Rescue Team and Auxiliary Team and send the rescue Team to site.</li> <li>Arrange to evacuate the unwanted persons and call for additional help.</li> <li>Pass information to the works main controller (WMC) periodically about the position at site.</li> </ul>							
4.	Works main Controller (WMC)	<ul> <li>Rush to emergency site and observe the ongoing activities.</li> <li>Take stock of the situation in consultation with the SIC.</li> <li>Move to Emergency Control Room.</li> <li>Take decision on declaration for emergency.</li> <li>Advise Auxiliary Team Leader to inform the statutory authorities and seek help of mutual aid from partners as required.</li> <li>Decide on declaration to end emergency.</li> <li>Ensure that the emergency operations are recorded as per chronologically.</li> </ul>							





Vill: Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



### Risk and Disaster Management Plan

5.	Rescue Team Leader (RTL)	<ul> <li>Consult with Site incident controller (SIC) and organize his team with amenities to arrest firefighting and medical help/treatment.</li> <li>Rush to Emergency Site through safe route along with the teammembers.</li> <li>Arrange to set off the fire by firefighting equipment's and hydrant points to arrest the fire or to evacuate the area.</li> <li>Shift the injured persons to hospital by ambulance after providing necessary first aid if necessary.</li> <li>To inform the auxiliary team Leader for necessary help from mutual aid Partners.</li> </ul>
6.	Auxiliary Team (ATL)	<ul> <li>On being directed by works main Controller (WMC) informs about the emergency to statutory authorities.</li> <li>Seek help of Mutual Aid partners and Coordinate with Mutual Aid partners to render their services.</li> <li>Arrange, to inform the relatives of casualties.</li> </ul>
		<ul> <li>Take care at site visit of the statutory authorities at the spot.</li> </ul>
7.	Team members	Each of the team members should follow the instruction of concerned team leader to mitigate the emergency.

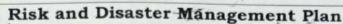
#### Salient Hour Command Structure

- The Senior Officers/ Key Persons of the plant remain during day time i.e. 8A.M. to 8 P.M. Hence; the timing of 8P.M. to 8A.M. is considered as salient hour that to 10P.M. to 8A.M. is the crucial time. Still each and every unit/section of the plant is headed by shift in charge in the rank of Officer, Engineer or Sr. Engineer or Asst. Manager, who shall be responsible for handling the emergency,. The other supporting/services and emergency sections like Fire Service, Ambulance, Security, Personnel, Water Supply, Transport departments etc are also running for 24 hours shift wise with shift in charge and crew to handle emergency during the salient hour till main command personnel arrives. However, most of the key persons of the main command structure reside in nearby area and can reach within minimum time.
- The command structure of the salient hour shall be same as during normal hour, however, during the salient hour, the operation Shift-in charge of the concerned area where the fire or leakage of gas has taken place, shall act as SIC-in —charge, till the arrival of actual designation members.





Vill: Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)





# ACTIVATION & CLOSING PROCEDURE FOR ON-SITE EMERGENCY ACTIVATION PROCEDURE.

The person noticing the incident of fire or leakage of gas, shall inform about the location & nature of fire to the combat team Leader (CTL), Security Main Gate and concerned Shift-in-charge.

Combat team Leader (CTL) shall inform site incident controller (SIC) and shall rush to the site immediately. He shall arrange for firefighting and first aid box which is available at site. He shall arrange to take necessary steps to eliminate the root cause of fire.

Site incident controller (SIC) on getting information shall inform the WMC and reach the site at the earliest. He shall take over the charge and shall direct Rescue Team Leader (RTL)) to carry out rescue operations including firefighting and medical attention. Site incident controller (SIC) shall co-ordinate with Combat team leader (CTL) to eliminate the root cause of fire.

- Work main controller (WMC), on arrival at site shall take status of the situation from site incident controller (SIC) and then rush to emergency control room (ECR) to declare emergency on the basis of assessment made by (Site incident controller (SIC). He shall give direction to the security gate/ (Rescue Team Leader) RTL to activate siren.
- Two Minutes with a pause of five seconds for 3 times for "fire Accident".
- Three Minutes with a pause of five seconds for 5 times for "leakage of gas".
- Combat team leader (CTL) shall mobilize for fire-fighting
- Rescue Team Leader (RTL) shall assist medical resources to site.
- Auxiliary Team Leader (ATL) shall take charge of Emergency Control Room (ECR), shall ensure smooth operation of ECR and shall inform relatives of casualties.
   Informs mutual Aid partners and ensures their arrival at site if required.
- Auxiliary Team Leader (ATL) informs statutory authorities and district administration regarding emergency suitably and coordinates their visit at site.
- Works main controller (WMC) coordinates and keeps the track of all the activities at site and off the site and arranges the recording of the activities in a chronological manner for review of the Onsite emergency Plan.





Vill: Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



#### Risk and Disaster Management Plan

# FACILITIES AVAILABLE FOR ON-SITE EMERGENCY PLAN: "ASSEMBLY POINT"

In any emergency it will be necessary to evacuate people from affected zones or the zones likely to be affected, to a safer place. Safer places are identified and designated as Assembly Points. Taking the area and hazard zones into consideration seven assembly points have been marked in four different areas these are:

- 1- Near Old Administrative Building (Assembly Point-1)
- 2- Near DRI & RMP Area (Assembly Point-2)
- 3- Near SMS Area (Assembly Point-3)
- 4- Near Power Plant Area (Assembly Point-4)
- 5- Near New Administrative Building (Assembly Point-5)
- 6- Near Pellet ECR building (Assembly Point-6)
- 7- Near Balling disc 1&2 (Assembly point -7)

Above the points are well connectable to the plant road and facilities like

Drinking water, Temporary shelter and First aid is available there.

These points are displayed at different places of inside plant and near administrative buildings.

#### (a) Escape routes:

Escape routes are those that, allow reasonably safe passage of persons from the work area to assembly point during emergency situation. These routes would be different depending on wind direction, Fire and explosion scenario. Escape routes are ear marked on the drawings as well as on the routes, which will facilitate all for safe evacuation.

#### (b) Emergency Control Room (ECR):

The emergency Control Room is a place from which all emergency management operation are directed and coordinated. Also it is the place from where all communication will be established, with outside agencies and district authority also.

Facilities Available at Emergency Control Room (ECR):

- Plant general Layout, ear marked with hazard zone, Assembly points and escape routes.
- · List of working personnel in various shifts and general shift.
- · Mobile telephone Nos., of emergency command structure personnel.
- · Emergency command structure.
- · Rhythmical siren code for different emergency situation.
- · Relevant material safety data sheet.
- · Emergency Control Room Register.
- · First Aid Box with antidotes.





Vill: Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



### Risk and Disaster Management Plan

Required personal protective equipment's with self-carrying breathing apparatus.

#### FACILITIES AVAILABLE Fire Hydrant System

Fire hydrant system/water pipe line spread at designated place. Fire pumps are connected with water storage tank of 20,000M³ sufficient capacities to mitigate the water requirement for firefighting.

Fire Extinguishers

Suitable types of required fire extinguishers are provided at fire hazard zone in different locations of the plant.

#### Fire Buckets

Fire buckets filled with dry sand and provided at fire hazard zone in different locations of the plant.

#### Siren

Company has Siren/ hooter arrangement, which can be activated manually during fire related emergency.

#### Communication

Public address system is available for effective communication inside the plant and emergency contact number display board fixed in all the departments of the premises.

#### Occupational Health Center

Occupational Health Center, operate round the clock with ambulance, stretchers, oxygen cylinders etc, is placed inside the factory. Occupational health center is operated by one qualified and experienced MBBS Doctor and four medical attendants. An external Ambulance service is hired to meet emergency situation, if required. In the case of emergency, affected employees are being referred to nearby sub divisional hospital at Salka of Raghunathpur. In case of serious injury, victim may referred to hospital to save life as per first attempt doctor.

#### First Aid Box

Company has provided First Aid boxes with required first aid dressing materials/medicines at different locations inside the plant to address minor injuries. First aid boxes are checked by our qualified & experienced medical attendant once in a every month and medicines are filled/replaced as per requirement.

#### The first aid boxes are provided in the following locations:

DRI-Control room & RMHS office, CPP-Control room & DM Plant,

SMS-Laboratory & CCM office, Pellet Plant- Control room, Laboratory, Grinding control room, Pellet mechanical room. Old Administrative building-Crew room, New Administrative buildings-Reception, Security Office-Main gate, General Canteen.

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Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia,(West Bengal)



### Risk and Disaster Management Plan

#### DISASTER MANAGENENT PLAN

#### Introduction:

Disaster may be defined as a sudden occurrence of incidence in such a magnitude as to affect the normal pattern of life inside or in the vicinity of plant which has the potential of causing extensive injury of loss of life or damage to property and tend to cause disruption inside/outside the site.

Hazardous substances are being handled, generated and stored in increasing quantities a various manufacturing facilities in recent years. This has posed a serious risk for the plant, persons and the environment encompassing thereof. The disasters following incidents in some industrial units handling hazardous substances in the last 2 to 3 decades has made it imperative for all concerned to device measures and implement them immediately and effectively to mitigate their adverse effects, if not, to totally eliminate them. The need to protect human being, the flora and fauna as well as our bio-diversity against these potential dangers has prompted the government for promulgation of various statutory provisions for preparation of hazard mitigation plans based on their risk impacts.

The Factories (Amendment) Act 1987 and manufacture storage and Import of Hazardous Chemical Rules- 1989 has provided regulation making mandatory for all owners of hazardous undertakings to prepare for their Onsite Emergency Plan in a pragmatic way and keep those well re-harassed for rapid action in actual crisis situation.

The goal of DMP is the effective containment of the emergency situation by proper mitigate action at the place of occurrence, cautioning people in adjoining affected localities; prompt rescue and provisions of medical aid to affected persons and communication to civil authorities for rushing in help from outside.

This objective being achieved by defining the functions and responsibilities of all concerned managerial, operational and supporting services department personnel with respect to detection and effective implementation of emergency action plan.

### Objectives of Disaster Management Plan (DMP):

The objectives of Disaster Management Plan (DMP) is to describe and spell out industry's emergency response actions that requires to be initiated to deal with various emergencies that could occur at the facility, with the response organization structure deployed in the shortest possible time. Thus the objective of emergency response plan can be summarized as:

- ✓ Rapid control and containment of the hazardous situation.
- Minimization of the risk and impact of event / accident.
- Effective rehabilitation of the affected persons and prevention of damage to property.

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Vill: Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



## Risk and Disaster Management Plan

## ELEMENTS OF DISASTER MANAGEMENT PLAN:

In order to effectively achieve the above mentioned objectives, the critical elements of the Disaster management plan (DMP) are follows;

- Reliable and early detection of an emergency and careful planning.
- The command, co-ordination, and response organization structure along with clearly demarcated line and staff function.
- The availability of resources for handling emergencies.
- Appropriate emergency response actions forecasted with least margin of error.
- Effective notification and communication facilities.
- Proper training of the concerned personnel.
- Regular review and updating of the DMP.

### Responsibility of Implementation of DMP:

Responsibility for establishing and maintaining an Emergency Preparedness Plan/DMP belongs to the Plant-in-charge. He is responsible for the control of the plan, and for ensuring that the plan is applicable and implementing procedures are operated during emergency situation and are reviewed and revised annually.

As a member of top management he is responsible for the training of personnel to ensure that adequate emergency response capabilities are maintained in accordance with the plan. He is also responsible for ensuring the regular conduct of drills and other measures, as outlined in the DMP.





Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia, (West Bengal)



### Risk and Disaster Management Plan

#### EMERGENCY COMMAND STRUCTURE

Works Main Controller (WMC)

Mr. Sanjay Kumar Singh - President



#### Site Incident Controller (SIC)

Mr. T. K. Chakraborty(GM-CPP)

Mr. R. R. Pathak (GM-SID)

Mr. Sumanta Nandi (Sr. Manager-SMS)

Mr. Mahesh Rana (DGM-Pellet plant)

#### **Auxiliary Team Leader** (ATL)

- 1. Mr. Deepak Shaw (HR, IR & Admin)
- 2. Mr. R. K. Mishra (DGM-EHS)
- 3. Mr. Srikant Mandal (HR & IR)

#### Combat Team Leader (CTL)

- 1. Mr. R K Sarangi (DGM-Pellet plant)
- 2. Mr. Harendra Singh (Sr. Manager-CPP)
- 3. Mr. Sanjay Pandit (Manager SMS/ CCM)
- 4. Mr. Baljeet Singh (Manager-RMP)

#### Rescue Team Leader (RTL)

- 1. Mr. Arvind Rai Security Head
- 2. Mr. Rajiv Mukherjee Utility & Electrical Head
- 3. Mr. Mohammad Kalim Manager-Safety
- 4 Mr. Debasish Tewary (Admin & IR)

#### Members

- 1. Mr. K. N. Singh (DGM-Accounts)
- 2. Mr. Debasish Tewary (Admin & IR)
- 3. Mr. Sandeep paul (HR)
- 4. Arpan Pal (Admin)
- 5. Subhasis Pradhan (Esic)
- 6. Mr. Binov Lodha Officer (Automobile)

#### Members

- 1. Mr.Somitro Shee Mgr-Electrical (CPP)
- 2. Mr. Uppendra Singh Sr. Mgr - Mechanical (DRI)
- 3. Mr. Abani Mahata Sr. Safety Officer
- 4. Mr. PS Dubey Sr. Security Officer
- 5...Mr. Mahadev Samanta Sr. Technician (Utility)

#### Members

- 1. Mr. K.J Lawrence AGM Stores
- 2. Mr. C S Paswan Sr. Safety Officer
- 3. Mr. Bishambar Dubey Security Officer
- 4.Mr. Rajesh Mondal Medical attendant
- 5. .Mr. Rahul Kumar Security Officer





Vill:Mahuda, P.O: RUKNI, PS: PARA, District: Purulia,(West Bengal)



## Risk and Disaster Management Plan

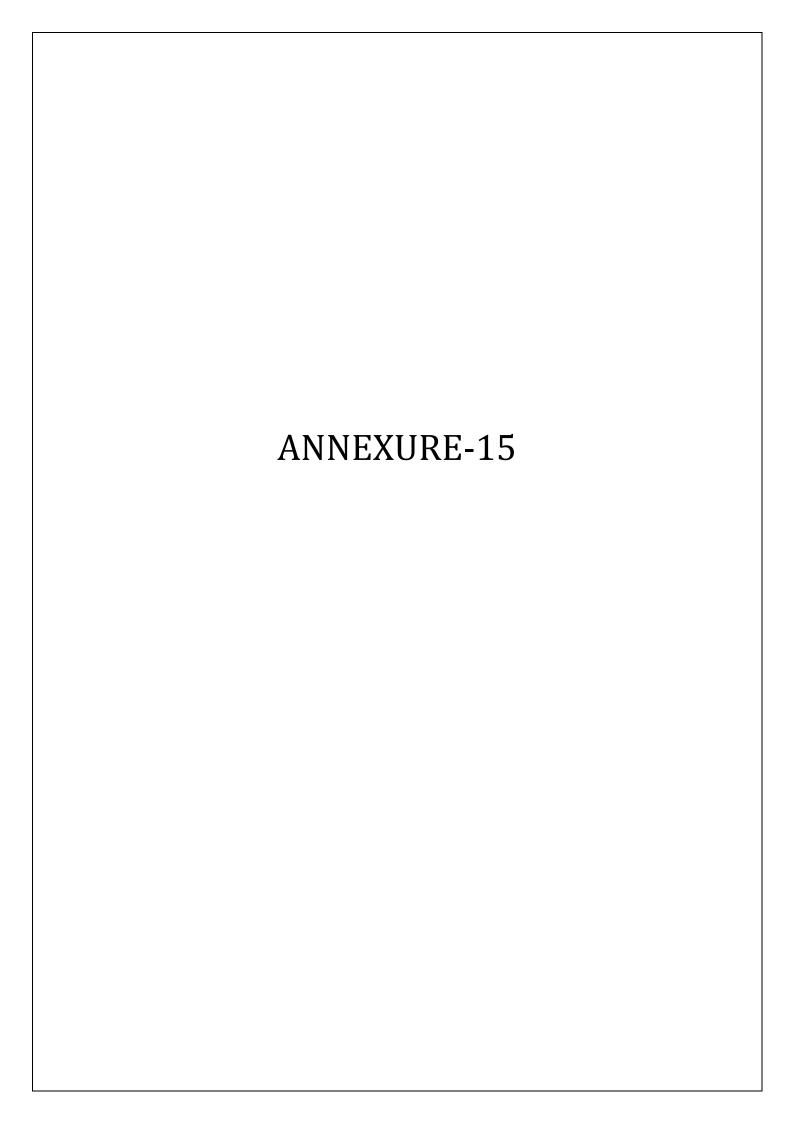
### TELEPHONE NUMBERS OF EMERGENCY COMMAND TEAM

SI No.	Name	Position in Team	Mob. Number		
1	Mr. Sanjay Kumar Singh	Works Main Controller (WMC)	8695605669		
2	Mr. T. K. Chakraborty		8900632315		
3	Mr. R. R. Pathak	Site Incident Controller (SIC)	8695621895		
4	Mr. Sumanta Nandi		7001860652		
5	Mr. Mahesh Rana		7076999733		
6	Mr. Deepak Shaw		9147099409		
7	Mr. R. K. Mishra	Auxiliary Team Leader (ATL)	8695621900		
8	Mr. Srikant Mondal		7719356455		
9	Mr. R K Sarangi		7432055308		
10	Mr. Harendra Singh	Combat Team Leader (CTL)	7004687981		
11	Mr. Sanjay Pandit		8158952815		
12	Mr. Baljeet Singh		7903010796		
13	Mr. Arvind Rai		7076999736		
14	Mr. Rajiv Mukherjee	Rescue Team Leader (RTL)	7547906800		
15	Mr. Mohammad Kalim		7605035952		
16	Mr. Debasish Tewary		8016558879		

#### **EMERGENCY CONTACT NUMBERS:**

SI No.	Name	Mob. Number	PAX. No.
1	Factory Main Gate	7547907800	
2	Factory Security In-charge	7076999736	
3	Factory Medical Unit/Ambulance	7548975623	NA
4	Factory Safety officers	7605035952/9593191099/ 8420242216	
5	Govt. Ambulance Service	101	SHEATEN AND
6	District Magistrate (Purulia)	8373068601	03252-222 302
7	Superintendent of Police	8145500325	03252-222 304
8	Chief Medical Officer		03251-255208
9	ADM (G),	8373068602	03252-222120
10	OC Disaster Management	7872488802	是一件的外外的对
11	Inspector of Factories (Purulia)	9474648348	0341-2252644
12	Dist. Controller F&S Purulia	8373068710	03252-222213
13	SDO, Raghunathpur	8373068608	03251-255270
14	Fire Station Raghnathpur	8584027313/314	03251-203550
15	Fire Station Santaldih	8584027312	03251-260238
16	Govt. Hospital Salka		03251-255208
17	Police Station Para	8145500375	03251-266330





## REPORT OF

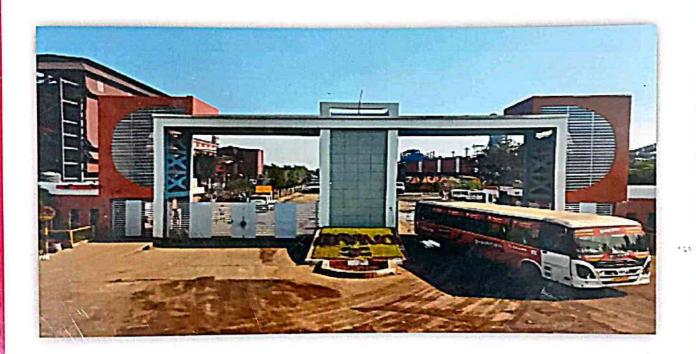
# "WORK ZONE MONITORING"

### for

## BRAVO SPONGE IRON PVT. LTD.

VILL.: MOHUDA, P. O.: RUKNI, P. S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723 145, WEST BENGAL.

DATE OF INSPECTION: 02 & 03.12.2022



Conducted by



# PIONEER SAFETY INDUSTRIES

85, Bentinck Street, 5<sup>th</sup> Floor, Room No.: 9, Kolkata 700 001.

Mobile: 9433120475

E-mail:pioneersafetyindustries@gmail.com/subhrodaspioneer@rediffmail.com

# Acknowledgement

We express our sincere thanks to the management and employees of BRAVO SPONGE IRON PVT. LTD. For their manufacturing plant situated at VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL for their co-operation and total help without which WORK ZONE MONITORING could not have been possible. The courtesy and cordiality extended to the audit team is highly appreciated.

PIONEER SAFETY INDUSTRIES



#### **INTRODUCTION:**

BRAVO SPONGE IRON PVT. LTD. for their manufacturing plant situated at VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723 145, WEST BENGAL requested PIONEER SAFETY INDUSTRIES to conduct the survey of work environment monitoring at their works for assessment of air borne contaminates accordingly the monitoring (as per your scope the said job) was completed as per requirement of Factories Rules. The entire site examinations were completed on 02 & 03.12.2022; and the results of the monitoring have reported.

#### STANDARDS:

Factories Acts 1948, under Sec7A (2)e West Bengal Factories Rules 1958, Rules 13(B)2

#### SCOPE OF WORK:

Heat Stress.

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Date of Inspection: 02 & 03.12.2022

#### **OBSERVATION:**

Results as mentioned in which are annexed herewith reveal the under noted. Heat Stress has been found to be within permissible limit in general.



#### **INSTRUMENT USED:**

- Globe Thermometer
- Digital Anemometer
- Dry & wet Bulb

#### RECOMMENDATION:

- Working personnel found with protected with suitable safety appliances for protection against dust and gases.
- Advise to the working personal to use PPE's DUST MUSK, EAR MUFF, and EAR PLUG at high noise zone.



Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling
Particulars of sampling

Particulars of sampling

Particulars of sampling

Location/ Operation	Identified	Date of Monitoring	Air borne Contaminates				TWA Contaminates a given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signatu Persons t sampi	Name (in block letters)	
Monitored	Contaminates	Date of nitoring	No. of Reading	Unit	Range	Average	A ates as	ing nt used thod	Continuous Exposure	Short time Exposure	rks	Signature of Un Un Un Persons taking Spy Thy Thy Thy Thy		
					25.2						B	UN	UTTAM METYA JOYDIP DEY	
SMS FURNACE	Heat Stress	02.12	14.0	0 <sub>C</sub>	25.6	25.8	31 °C	Globe and Wet Bulb	06	02	Below	9	A MA	
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		20			26.4								4 \$	
					26.3						ы	Be	UTTAM METYA JOYDIP DEY	
SMS FURNACE	Heat Stress	02.12.2022	4	O <sub>C</sub>	26.5	27.0	31 °C	Globe and Wet Bulb	03	03	Below	R	YEM	
NO B2	near stress	.2022	. *	1 00	27.4	] 21.0		thermometer			ME	Jr.	MET	
					27.6							In	Y X	
				0 <sub>C</sub>	24.1	25.4	31 °C	Globe and Wet	04	02		M	JOYDIP DEY	
SMS FURNACE	Heat Stress	02.12.2022	4		25.6						Below TLV	3	MAN	
NO CI	Heat buess	2022	T .	"	25.8	20.4	01.0	thermometer		0.0	MIL	2	PDE	
		10			26.1						,		23	
					25.3						m	1	of Lin	
SMS FURNACE	Heat Stress	O2.12.2022	)2.12	4	°c	25.6	26.1	21.00	Globe and Wet		02	Belov	2	Y A
NO C2	neat Stress	.202	•	1 00	26.4	26.1	31 °C	Bulb thermometer	03	02	Below TLV	8,	JOYDIP DEY	
e e		100			27.1						ha	4	33	

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

PIONEER SAFETY INDUSTRIES

Name of the Factory Factory Address
Particulars of sampling

Form-30 Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act : BRAVO SPONGE IRON PVT. LTD.
: VILL. : MOHUDA, P.O. : RUKNI, P.S. : PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN : 723145, WEST BENGAL. : HEAT STRESS

Location/ Operation	Identified	Date of Monitoring	Air borne Contaminates				TWA Contaminates a given in Schedule-II	Sampling Instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signati Persons samj	Name (in block letters)
Monitored	Contaminates	e of oring	No. of Reading	Unit	Range	Average	/A nates as n in ule-II	ling int used ethod	Continuous Exposure	Short time Exposure	ırks	Signature of UM UM Persons taking samples Sty Jyy Jyy J	n block rs)
					25.3							W/	Jo
SMS FURNACE	Heat Stress	02.12.2022	2	0-	25.4			Globe and	25		Below TLV	C. 3	METYA JOYDIP DEY
NO Al	neat Stress	.202	4	0C	26.1	25.8	31 °C	Wet Bulb thermometer	04	02	11	10	PYA
		155			26.4						<		EA.
		0			22.1						low /	4	Jo
SMS FURNACE	Heat Stress	02.12.2022	4	0c	23.4	23.7	31 °C	Globe and Wet Bulb thermometer	03	01		C. 3	UTTAM METYA JOYDIP DEY
SMS FURNACE NO A2			•		24.5		51 0			"		3	METYA METYA DYDIP DI
		10			24.7			\			<	Ton	EY
	l	္စ		0c	23.4	24.2	31 °C	Globe and Wet Bulb	00	05	В	211	Jo
SMS FURNACE CRUSHIBLE	Heat Stress	02.12.	4		23.6						Below	4	UTTAM METYA JOYDIP DEY
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		100			24.9						<	M.	\$
		o			22.1						В	V	P
CCM BILLETS	Heat Stress	02.12.2022	2.12.202	0c	23.4	23.4	31 °C	Globe and Wet Bulb thermometer	09	04	elov	9	E MG
YARD	11641 114633				23.6					04	Below TLV	and	UTTAM METYA JOYDIP DEY
		10			24.5					1 1	2	1	13, _

Sk. Abdul Faruk

Competent Person

PIONEER SAFETY INDUSTRIES

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling
Particulars of sampling
Particulars of sampling
Particulars of sampling

Location/ Operation	Identified	Date of Monitoring	Air borne Contaminates				and method  TWA  Contaminates a given in Schedule-II	Sampling Instrument used and method	Number of worker location being		Remarks	Signati Persons samp	Name (in block letters)
Monitored	Contaminates	te of oring	No. of Reading	Unit	Range	Average	/A nates as n in nle-II	ling int used ethod	Continuous Exposure	Short time Exposure	uks	Signature of Persons taking Stoy Jpp Jpp	ı block rs)
DRI KILN PLATFROM 01	Heat Stress	02.12.2022	4	0C	27.6 27.8 28.2	28.2	31 °C	Globe and Wet Bulb	00	02	Below TLV	1	METYA JOYDIP DEY
		)22			29.1			thermometer			T/V		YEY A
/m = 0 = 0 = 0 = 0	Heat Stress	02.		°C	25.3	26.0	31 °C	Globe and Wet Bulb		02	Below	NA	Joyn
DRI KILN PLATFROM 02		02.12.2022	4		25.4 26.3				00		OW TLV	31	METYA JOYDIP DEY
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		02		<sup>0</sup> С	25.2	26.8	31 °C	Globe and Wet Bulb thermometer		01	Ве	M	METYA JOYDIP DEY
DRI KILN PLATFROM 03	Heat Stress	02.12.2022	4		26.3				00		Below	C.	DET
PLATEROM 03	***************************************	2022			27.4					250.5	ATL	3,	DEXX
					28.2							-	4
riconadores de la companya del companya de la companya del companya de la company	1	22			26.3						B	WW	3, 2
DRI KILN PLATFROM 04	Heat Stress	.12.	02.12.2022	0C	26.5	27.0	31 °C	Globe and Wet Bulb thermometer	00	02	wole	(1	WETYA YDIP D
	3.20.3	.2022			27.3		31 0			02	Below TLV	00	METYA JOYDIP DEY
		20			27.8						•	X	13

NB: TLV: Threshold Limit Values

Sk. Abdu Faruk

Competent Person

PIONEER SAFETY INDUSTRIES

Name of the Factory Factory Address

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act
: BRAVO SPONGE IRON PVT. LTD.
: VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.
: HEAT STRESS

Particulars of sampling

Location/ Operation	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates a given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signate Persons samp	Name (in block letters)
Monitored		e of ring	No. of Reading	Unit	Range	Average	A lates as lin le-II	ling nt used thod	Continuous Exposure	Short time Exposure	ırks	Signature of Un Um Um Um Mm samples Try Juy Juy J	n block rs)
CCM CASTING FLOOR	Heat Stress	02.12.2022	4	0C	25.4 25.6 26.1 26.3	25.9	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV	2.	UTTAM METYA JOYDIP DEY
CCM BILLET CUTTING AREA	Heat Stress	02.12.2022	4	0С	28.6 28.8 29.3 29.5	29.1	31 °C	Globe and Wet Bulb thermometer	04	03	Below TLV	3	UTTAM METYA JOYDIP DEY
CCM FITTER AREA	Heat Stress	02.12.2022	4	<sup>0</sup> С	26.3 26.5 27.1 27.4	26.8	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV	J	UTTAM METYA JOYDIP DEY
CCM COOLING BELT	Heat Stress	02.12.2022	4	0С	25.6 25.8 26.4 26.8	26.2	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	UM TON	UTTAM METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

Sk. Aban Faruk

PIONEER SAFETY INDUSTRIES

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling
Particulars of sampling

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

RRAVO SPONGE IRON PVT. LTD.

VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.

Location/ Operation	Identified Contaminates	Date of Monitoring	Air borne Contaminates				Sampling instrument used and method  TWA Contaminates as given in Schedule-II		Number of workers exposed at the location being monitored			Signature of Persons taking samples	Name (in block letters)
Monitored	Contaminates	e of oring	No. of Reading	Unit	Range	Average	'A nates as n in nle-II	ling nt used ethod	Continuous Exposure	Short time Exposure	Remarks	taking	n block ers)
		0			25.3							2	Jo
DRI OC LAB	Heat Stress	02.12.2022	4	0 <sub>C</sub>	25.9	1	31 °C	Globe and Wet Bulb	03	01	Below TLV	0.	UTTAM METYA JOYDIP DEY
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		100			26.5	1					<	1	14.
		02.			27.1						w	M	Jo
DRI 4 DSC AREA	Heat Stress	2.12	4	0 <sub>C</sub>	27.3	27.6	31°C	Globe and Wet Bulb	00	02	Below	c	UTTAM METYA JOYDIP DEY
0.514	neut bitess	.12.2022	*	"	27.6	21.0	5. 0	thermometer	107,457	02	ATI	Tpy	METYA METYA DYDIP DE
					28.2						<	d	£
		8			25.8						В	W	Jo
DRI 3 DSC AREA	Heat Stress	2.12.	4	0 <sub>C</sub>	25.9	26.3	31 °C	Globe and Wet Bulb	00	01	elov	c	MAG
		02.12.2022			26.5	1 20.0	0.0	thermometer	1070.70	01	Below TLV	no	UTTAM METYA JOYDIP DEY
					26.8						V		
	1	8			26.5			486600			В	N	70
DRI 4 OUTLET	Heat Stress	12.	4	0 <sub>C</sub>	26.8	26.9	31 °C	Globe and	00	01	elov	3	E MAG
AREA		leat Stress 22.	.2022		27.1	26.9		31 °C Wet Bulb thermometer		01	Below TLV	JAW	UTTAM METYA JOYDIP DEY
					27.3	IR: TI.V: Thro				10	<		5, _

NB: TLV: Threshold Limit Values

pioneer safety industries

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling
Particulars of sampling

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

SPARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.

HEAT STRESS

Location/ Operation	Identified Contaminates	Date of Monitoring	Air	r borne Contaminates			TWA Contaminates a given in Schedule-II	0.60	Number of workers exposed at the location being monitored			Signature of Persons taking samples	Name (in block letters)
Monitored	Comanunates	e of ring	No. of Reading	Unit	Range	Average	A ates as	ing at used thod	Continuous Exposure	Short time Exposure	Remarks	re of alking les	block s)
DRI 3 OUTLET	Heat Stress	02.12.2022	4	°C	26.8 26.9	27.2	31 °C	Globe and Wet Bulb	00	01	Below TLV	J.	UTTAM METYA JOYDIP DEY
AREA		2022	70		27.4	1,1700,015		thermometer			ATL	Joy	YA DEY
DRI 2 OUTLET	Heat Stress	02.12.2022	4	°C	25.3 25.7			Globe and			Below TLV	Vm J	UTTAM METYA JOYDIP DEY
AREA		2022			25.8 26.3	25.8	31 °C	Wet Bulb thermometer	00	01	ATL	John	M YA DEY
DRI 2 DSC AREA	Heat Stress	02.12.2022	4	0C	26.4 26.5			Globe and Wet Bulb			Below TLV	wh	UTTAM METYA JOYDIP DEY
DRIZ DSC AREA	neatotress	.2022	*	90	27.6 27.8	27.1	31 °C	thermometer	00	01	VTT V	Too	'AM I'YA P DEY
	812 - 613	02.12		0-	29.5 29.6			Globe and			Belo	S wy	DYD ME JOYD
DRI I DSC AREA	Heat Stress	02.12.2022	4	0C	29.8 30.1	29.8	31 °C	Wet Bulb thermometer	00	01	Below TLV	per	UTTAM METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

: BRAVO SPONGE IRON PVT. LTD.
: BRAVO SPONGE IRON PVT. LTD.
: VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.

: HEAT STRESS

Location/ Operation	Operation Identified		Air borne Contaminates				TWA Contaminates a given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)
Monitored	Comammacs	Date of Monitoring	No. of Reading	Unit	Range	Average	ates as in le-II	ng it used hod	Continuous Exposure	Short time Exposure	ks	131	block i)
DRI 1 OUTLET AREA	Heat Stress	02.12.2022	4	<sup>0</sup> С	26.5 25.8 26.1 26.3	26.2	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	UM TPH	UTTAM METYA JOYDIP DEY
AFBC BOILER DRAIN POINT	Heat Stress	02.12.2022	4	0C	26.2 26.5 27.4 27.5	26.9	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	W/ Josep	UTTAM METYA JOYDIP DEY
AFBC BOILER FURNACE FLOOR	Heat Stress	02.12.2022	4	0C	28.3 28.6 29.3 29.8	29.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	JAH	UTTAM METYA JOYDIP DEY
CPP TG FLOOR	Heat Stress	02.12.2022	4	0C	24.3 25.6 25.8 26.4	25.5	31 °C	Globe and Wet Bulb thermometer	02	03	Below TLV	Lode L wn	UTTAM METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

Competent Person

Sk. Abdul Faruk

PIONEER SAFETY INDUSTRIES

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act: BRAVO SPONGE IRON PVT. LTD.
: VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.: HEAT STRESS

Name of the Factory Factory Address Particulars of sampling

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air	borne Co	ontaminates		TWA Contaminates a given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)
Monnored		of	No. of Reading	Unit	Range	Average	n ates as in le-II	ing at used thod	Continuous Exposure	Short time Exposure	rks	taking les	n block rs)
2 6.000 m/s (100 m/s) (100		0			25.3							m	70
WHRB 4 RADIATION	Heat Stress	02.12.2022	4	0c	25.8	25.9	01.00	Globe and			Below TLV	2.	METYA JOYDIP DEY
AREA		202	•	30	26.1	25.9	31 °C	Wet Bulb thermometer	00	02	× 11	100	METYA YDIP DI
		100			26.3						<	h	EY 1
		8			24.6						м	M	JC
WHRB 3 RADIATION	Heat Stress	02.12.2022	4		24.8	25.2	31 °C	Globe and Wet Bulb	00	01	elor	0 3	METYA JOYDIP DEY
AREA		2022		0C	25.6	25.2	31.0	thermometer	00	01	Below TLV	Town	TYA
					25.8						<	1/4	EY
		8			24.3							J. N.	ō
WHRB 2 RADIATION	Heat Stress	.12	4		24.5	24.9	31 °C	Globe and Wet Bulb	00	02	elov	0	Y ME
AREA		02.12.2022		0C	25.1	1	0.0	thermometer		02	Below TLV	Ton	UTTAM METYA JOYDIP DEY
					25.6						4	14	EX
22		8			23.1						ha	e m	Jo
WHRB 1 RADIATION	Heat Stress	1.12.	4	0c	23.4	23.9	31 °C	Globe and	00	0,	elor	1	THE
AREA		02.12.2022	202		24.5		31 °C Wet Bulb thermometer			01	Below TLV	24	METYA JOYDIP DEY
					24.6					<	1	\$	

NB: TLV: Threshold Limit Values

Sk. Aboul Faruk

Competent Person

pioneer safety industries

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

SERAYO SPONGE IRON PVT. LTD.

SUIL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.

HEAT STRESS

Location/	Identified	Date of Monitoring	Air	borne Co	ontaminates		TWA Contaminates a given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)
Operation Monitored	Contaminates	te of toring	No. of Reading	Unit	Range	Average	'A nates as n in ile-II	ling nt used ethod	Continuous Exposure	Short time Exposure	rks		5.557
CPP QC LAB	Heat Stress	02.12.2022	4	0C	22.1 22.5 22.8 23.1	22.6	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	Long wh	UTTAM METYA JOYDIP DEY
SMS FURNACE NO – 8A	Heat Stress	02.12.2022	4	0C	18.5 18.9 19.6 19.8	19.2	• 31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV	shell wi	UTTAM METYA JOYDIP DEY
PROJECT WHRB 13.9 MW	Heat Stress	02.12.2022	4	°C	17.2 17.5 18.2 18.6	17.9	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	Jan	UTTAM METYA JOYDIP DEY
PROJECT DRI 350 DSC FLOOR	Heat Stress	02.12.2022	4	0C	14.2 15.3 15.8 16.2	15.4	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	UM Tou	UTTAM METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES

Location/ Operation	Identified Contaminates	Date of Monitoring	Air borne Contaminates					Sampling instrument used and method	Number of workers exposed at the location being monitored			Signature of Persons taking samples	Name (in block letters)
Monitored	Contaminates	e of oring	No. of Reading	Unit	Range	Average	TWA Contaminates as given in Schedule-II	ling nt used ethod	Continuous Exposure	Short time Exposure	Remarks		n block rs)
		۰			14.3						w	L'M	o G
PROJECT DRI DSC	Heat Stress	03.12.2022	D	0c	14.5	1		Globe and			Below	2	UTTAM METYA JOYDIP DEY
2ND FLOOR	neat Siress	.202	4	00	15.4	15.0	31 °C	Wet Bulb thermometer	00	01	ATLA	ha	PD
		100			15.6	1					4	7	EX.
		9			12.3						B	LIM.	Jo
PROJECT DRI 350	Heat Stress	03.12.2022	4	°C	12.5	12.9	31 °C	Globe and Wet Bulb	04	03	Below TLV	5	UTTAM METYA JOYDIP DEY
KILN FLOOR	near biress	202	•	00	12.8	12.5	31.0	thermometer	04	03	TI	Her	PDI
		15			13.8						۲.		
		8			15.6						₩	Wh	٦ <u>.</u>
PROJECT DRI 350	Heat Stress	3.12.	4	0 <sub>C</sub>	15.8	16.1	31 °C	Globe and Wet Bulb	02	01	elow	9	YE ME
OUTLET AREA	110011011010	03.12.2022	•	"	16.2	10.1	0. 0	thermometer	13375		Below TLV	per.	METYA METYA JOYDIP DEY
					16.8						•	- 33 	2
		ا ھ		1	16.5	1		980000000000000000000000000000000000000			В	Wn	Ö.,
PROJECT DRI 350	Heat Stress	3.12.	4	0 <sub>C</sub>	16.8	16.9	31 °C	Globe and Wet Bulb	01	01	Below	4 3	APE
KCTB	11041 241035	eat Stress 2022	303	"	16.9	.9	31 ℃	°C Wet Bulb thermometer	The state of the s	"	VIII.	ing	UTTAM METYA JOYDIP DEY
					17.2	NB: TLV: Thre				1 1	2	4	7

Sk. Abdul Faruk

pioneer safety industries

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling
Particulars of sampling

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

RRAVO SPONGE IRON PVT. LTD.

VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates a given in Schedule-II	N	Number of workers exposed at the location being monitored			Signature of Persons taking samples	Name (in block letters)
Monitored		of	No. of Reading	Unit	Range	Average	A lates as lin le-II	ing nt used thod	Continuous Exposure	Short time Exposure	Remarks	taking	ı block rs)
		00			24.6						В	3	METYA JOYDIP DEY
PROJECT DRI	Heat Stress	03.12.2022	4	0 <sub>C</sub>	25.3	25.6	31 °C	Globe and Wet Bulb	03	02	Below TLV	6	AME
DRUM AREA		202		-0	26.2	20.0	31 0	thermometer	03	02	T	ma	PD
		10			26.4						<	16	EY
		<sub>8</sub>			28.3						В	M	Jo
PELLET 01	Heat Stress	3.12.	4	0C	28.6	29.1	31 °C	Globe and Wet Bulb	02	01	elov	3	ANE A
COLLER FLOOR		03.12.2022			29.4		0.0	thermometer	02		Below TLV	Po	UTTAM METYA JOYDIP DEY
					30.1						٩.	7	ΥЗ
		8			28.4						B	WN	Jo
PELLET KILN	Heat Stress	12.	4	0C	28.6	28.8	31 °C	Globe and Wet Bulb	02	01	elov	2.	Y ME
BURNER FLOOR	- 1100000000000000000000000000000000000	03.12.2022		- 0	28.8	20.0	0.0	thermometer	02	"	Below TLV	In of	UTTAM METYA JOYDIP DEY
					29.3						۲	1	5
		8			29.6						В	WW	Jo
PELLET KILN	Heat Stress	03.12.	4	0c	29.8	30.0	21.00	Globe and			elor	V	A MA
PLATFROM	Heat pitess	.2022		"	30.2	30.0	31 °C Wet Bulb thermometer	60 W (4 P(E)	03	Below TLV	Dr.	UTTAM METYA JOYDIP DEY	
		)22	22		30.4			mermometer			<	1	EL L

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act : BRAVO SPONGE IRON PVT. LTD.

Name of the Factory
Factory Address
: BRAVO SPONGE IRON PVT. LTD.
: VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.
Particulars of sampling: HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates			TWA Contaminates given in Schedule-II	Sampling instrument use and method	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)	
Monitorea		of	No. of Reading	Unit	Range	Average	ates as in le-II	ing it used thod	Continuous Exposure	Short time Exposure	rks	re of laking les	block s)
PELLET PLANT TG FLOOR	Heat Stress	03.12.2022	4	0c	28.6 28.9	29.2	31 °C	Globe and Wet Bulb	00	02	Below TLV	S EN	UTTAM METYA JOYDIP DEY
LEFT SIDE		2022		-0	29.4 29.8	20.2	0.0	thermometer	10200000	02	VII.	John	AM TYA P DEY
PELLET PLANT TG BED	Heat Stress	03.12.2022	4	0 <sub>C</sub>	27.4	27.7	31 °C	Globe and Wet Bulb	02	01	Below TLV	·	UTTAM METYA JOYDIP DEY
10 1111		2022			27.8			thermometer	:		ATL	Jay	YA
PELLET PLANT		03.12.2022			28.5			Globe and			Belo	W	dyoJ me ma me
TG FLOOR RIGHT SIDE	Heat Stress	.2022	4	0C	29.3 29.4	29.0	31 °C	Wet Bulb thermometer	00	03	Below TLV	Tom	UTTAM METYA JOYDIP DEY
		8			26.1						₩	1	79
PELLET PLANT RETURN FLOOR RIGHT SIDE	Heat Stress	03.12.2022	4	0C	26.5 26.8	26.7	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV	Si	UTTAM METYA JOYDIP DEY
		022			27.4						1	1	N.

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES

# Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act : BRAVO SPONGE IRON PVT. LTD.

Name of the Factory Factory Address

55566666666

: VILL. : MOHUDA, P.O. : RUKNI, P.S. : PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN : 723145, WEST BENGAL.

Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air	borne Co	ntaminates		Sampling instrument used and method and method  TWA Contaminates as given in Schedule-II		Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)
Monitored		e of ring	No. of Reading	Unit	Range	Average	ates as in le-II	ing It used thod	Continuous Exposure	Short time Exposure	ks	25/6	block s)
PELLET PLANT TG RETURN LEFT SIDE	Heat Stress	03.12.2022	4	0C	17.5 17.8 18.3 18.6	18.1	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	um Jour	UTTAM METYA JOYDIP DEY
PELLET PLANT FRIST FLOOR	Heat Stress	03.12.2022	4	0C	16.5 16.8 17.2 17.3	17.0	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	MI	YAD AIDKO WYLLN WYLLN
PELLET PLANT COMPRESSOR ROOM	Heat Stress	03.12.2022	4	0C	15.3 15.4 15.7 16.2	15.7	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	um mu	UTTAM METYA JOYDIP DEY
PELLET PLANT QC LAB	Heat Stress	03.12.2022	4	0c	18.5 18.7 18.9 19.3	18.9	31 °C	Globe and Wet Bulb thermometer	07	02	Below TLV	Ads	UTTAM METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES

Location/ Operation	Identified	Date of Monitoring	Air	borne Co	ntaminates		TWA Contaminates as given in Schedule-II	Sampling Instrument used and method	Number of worker location being		Remarks	Signature of Persons taking samples	Name (in block letters)
Monitored	Contaminates	te of oring	No. of Reading	Unit	Range	Average	A lates as	ing nt used thod	Continuous Exposure	Short time Exposure	rks	re of alking es	s)
			Itedamy		17.2						₩		7
PELLET PLANT		03.12.2022	0-	17.5	17.8	31 °C	Globe and Wet Bulb	02	01	Below TLV	0	METYA JOYDIP DEY	
COOLER H BASEMENT	Heat Stress	.202	4	0C	18.1	] 17.8	31.0	thermometer		(4.5)	ATT	Toy	DE
		25			18.3							1	10.7
		00			15.3						Be		METYA JOYDIP DEY
FILTER PRESS WIDE BELT	Heat Stress	03.12.2022	4	0 <sub>C</sub>	15.8	15.8	31 °C	Globe and Wet Bulb	01	02	Below TLV	8	PE
CONVEYOR		2022	9 <del>7</del> 40		15.9			thermometer			AT.	40	DE
		-		ļ	16.2	-					_	1 2	
		03			14.3	4		Globe and			Bel	7	SM
FILTER PRESS 10 MTR	Heat Stress	03.12.2022	4	0C	14.6	14.9	31 °C	Wet Bulb	02	01	Below TLV	Tre	METYA DYDIP DE
		022			15.2 15.3			thermometer		1	AT.	6	METYA JOYDIP DEY
		-		-	15.3					_	2		
		03.			15.6	1		Globe and		1	Bel	w	SE S
FILTER PRESS 16 MTR	Heat Stress	03.12.2022	12.20	0c	16.1	15.8		et Bulb 00	02	Below TLV	The	METYA JOYDIP DEY	
	(8)		1022		16.3			thermometer		1 1	1V	K	PE

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES

Factory Address
Particulars of sampling

Form-30

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act
: BRAVO SPONGE IRON PVT. LTD.
: VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.
: HEAT STRESS

Location/ Operation	Identified Contaminates	Date of Monitoring	Air borne Contaminates				and method TWA Contaminates a given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)
Monitored	Contaminates	te of oring	No. of Reading	Unit	Range	Average	A lates as	ing at used thod	Continuous Exposure	Short time Exposure	rks		
		8			15.3			Globe and			Bel	, un	METYA JOYDIP DEY
FILTER PRESS 12	Heat Stress	03.12.2022	4	0C	15.4	15.6	31 °C	Wet Bulb	04	02	Below TLV	Som	METYA METYA YDIP DI
MTR		2022		0.00	15.6			thermometer			AT	7	M A A
					16.2							· \	33.80
		03			15.4	4		Globe and			Bel	M	UTTAM METYA JOYDIP DEY
PRIMARY BALLL	Heat Stress	03.12.2022	4	0C	15.6	15.8	31 °C	Wet Bulb	04	02	Below TLV	SI	METYA METYA DYDIP DI
MILL		022			15.8	-		thermometer			VI	40,	M A A
					16.2	-						6	- 3//
		C3.12.			14.5	1		Globe and			Below TLV	" na	UTTAM METYA JOYDIP DEY
SECONDARY BALL MILL	Heat Stress	12.2	4	0C	15.2	15.0	31 °C	Wet Bulb	03	01	Two	40.7	METYA METYA DYDIP DI
		.2022			15.8	1		thermometer			M	1/2	A A
				-	14.5		_					1	J
		03.1			14.8	1		Globe and			Belo	6 7	1 1 1 E
BALL MILL SCRUBER AREA	Heat Stress	03.12.2022	4	0C	15.2	15.0	31 °C	Wet Bulb thermometer	02	01	Below TLV	6	UTTAM METYA JOYDIP DEY
		22	0		15.6	1		Licentionieter		1 . 1	V	1/2	ă » z

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

pioneer safety industries

Form-30

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling
Particulars of sampling

Particulars of sampling

Particulars of sampling

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates			TWA Contaminates a given in Schedule-II	Sampling instrument used and method TWA	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)	
Monitored	Contaminates	e of ring	No. of Reading	Unit	Range	Average	ates as	ing at used thod	Continuous Exposure	Short time Exposure	rks		
MIXTURE AREA	Heat Stress	03.12.2022	4	0C	14.5 14.8 15.2 15.3	15.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	UM Jerry	METYA JOYDIP DEY
SMS QC LAB	Heat Stress	03.12.2022	4	°C	14.6 14.8 15.2 15.3	15.0	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	TOX	METYA JOYDIP DEY
PROJECT PELLET 2 TG 1ST FLOOR	Heat Stress	03.12.2022	4	0 <sub>C</sub>	16.3 16.8 17.1 17.5	16.9	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	tha!	METYA JOYDIP DEY
PROJECT PELLET RILN PLATFROM	Heat Stress	03.12.2022	4	0C	20.3 21.5 21.6 22.4	21.5	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV	Jan my	METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

Sk. Aldal Faruk

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling: HEAT STRESS

\*\*HEAT STRESS\*\*

\*\*Provided under section 7-A (2)(E) of the Act

\*\*Particular STRESS\*\*

\*\*Provided under section 7-A (2)(E) of the Act

\*\*Particular STRESS\*\*

\*\*Provided under section 7-A (2)(E) of the Act

\*\*Particular STRESS\*\*

\*\*Provided under section 7-A (2)(E) of the Act

Location/ Operation Monitored	Identified Contaminates	ates 2 6	Air borne Contaminates			TWA Contaminates a given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)	
Monitored	Contaminates	e of ring	No. of Reading	Unit	Range	Average	A lates as l in le-II	ling nt used thod	Continuous Exposure	Short time Exposure	rks	re of taking les	block rs)
		8			18.3			222200000000000000000000000000000000000			Ве	Um	کی ۔
PROJECT PELLET 2 TG RETURN	Heat Stress	03.12.2022	4	0c	18.7	18.9	31 °C	Globe and Wet Bulb	02	04	Below	9	UTTAM METYA JOYDIP DEY
FLOOR		2022			19.2			thermometer			ATL	hall	DE
		1000			19.5						100		0
PROJECT PELLET		8.			19.6	-		Globe and			Below	MM	UTTAM METYA JOYDIP DEY
2 SWING	Heat Stress	03.12.2022	4	0C	20.4	20.5	31 °C	Wet Bulb	10	04	L Mo	Jon	PETA
CONVEYOR		)22			21.3	1		thermometer			ATL	th	A W
		1_			21.3						_	20	
PROJECT PELLET	<u> </u>	03.12	0.20		21.5	1		Globe and		11212	Below	W	FAG
TG FLOOR	Heat Stress	03.12.2022	4	0C	22.1	21.8	31 °C	Wet Bulb thermometer	10	02	ATI W	2	UTTAM METYA JOYDIP DEY
		23			22.3						<	the.	EA
					20.4						ш	No	Jo
PGP GROUND FLOOR TARPIT	Heat Stress	3.12	4	0c	20.6	20.8	31 °C	Globe and Wet Bulb	00	02	Below	2	WETYA METYA YDIP DI
AREA	neatoness	03.12.2022	•	30	20.9	20.8	31 0	thermometer	00	02	VIII	101	UTTAM METYA JOYDIP DEY
		10			21.4	D. 111 17. 111	e					10	3

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
Particulars of sampling
: HEAT STRESS

Particulars of sampling

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Aix	borne Co	borne Contaminates		instrument use and method and method TWA Contaminates a given in Schedule-II		Number of worker location being		Remarks	Signature of Persons taking samples	Name (in block letters)
Monitored	Contaminates	e of oring	No. of Reading	Unit	Range	Average	A nates as n in the Lie-II	ling nt used ethod	Continuous Exposure	Short time Exposure	rks	ure of taking les	ı block rs)
		0			24.6			2000000			Ħ	NA	UTTAM METYA JOYDIP DEY
PGP 4 MTR ASH	Heat Stress	03.12.2022	4	0c	24.8	25.0	31 °C	Globe and Wet Bulb	01	01	Below	0	DEST
PAN AREA NO-2	incur bitess	202		-0	24.9	20.0	0.0	thermometer			ATL	100	DEAN
		100			25.6						7	4	_
		8		1	24.8	1		V. 20. W. W. C.			Ве	3	UTTAM METYA JOYDIP DEY
PGP 4 MTR ASH		03.12.2022	4		25.2	25.5		Globe and Wet Bulb	01	01	Below TLV	4	WETYA METYA DYDIP DI
PAN AREA NO-3	Heat Stress	2022	10.50	0C	25.6		31 °C	thermometer		0.0000	AT.	40	DEYAM
					26.3							1	
		8			20.1						Ве	MM	UTTAM METYA JOYDIP DEY
PCP 6 MTR AREA		03.12.2022	4		20.5	21.0	31 °C	Globe and Wet Bulb	00	03	Below TLV	2	METYA METYA DYDIP DI
	Heat Stress	2022		0C	21.4	1		thermometer			ATL	Di Co	DE XX
		1550			21.8							1	
		8			23.1	-		G1-11			Ве	NN.	2 2 0
PGP 8 MTR PACKING AREA	Heat Stress	.12.	4		23.4	23.8	31 °C	Globe and Wet Bulb	05	02	Below	V	METYA METYA DYDIP DI
NO-2		03.12.2022	9200	0C	24.1	C710/04370	CON 177-0	thermometer		5440434	ATL	40	UTTAM METYA JOYDIP DEY
					24.5	D. 07 17. 00					1	1	K

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES



Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act: BRAVO SPONGE IRON PVT. LTD.

VILL.: MONITOR, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.

Name of the Factory : BRAVO SPONG Factory Address : VILL.: MOHUL Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates		Air borne Contaminates				TW/ Contami as give Schedu	Sampling instrument used and method TWA Contaminates as given in Schedule-II	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)
монногец		of	No. of Reading	Unit	Range	Average	nates n in	ing it used ihod	Continuous Exposure	Short time Exposure	rks	re of alding les	block s)
PGP 8 MTR	Heat Stress	03.12.	4	0c	26.3 26.5	26.7	31 °C	Globe and Wet Bulb	05	02	Below	CM	
PACKING AREA NO - 3	Treat Offess	.2022	•	90	26.8 27.1	26.1	31-0	thermometer	05	02	VTT V	Ton	P DEY
PGP 14 MTR CHARGING	Heat Stress	03.12.2022	4	0C	25.3 25.4 25.8	25.7	31 °C	Globe and Wet Bulb thermometer	03	02	Below TLV	Tour MN	UTTAM METYA JOYDIP DEY
		(50)		-	26.3 24.8								15525
PGP 21 MTR COAL STOCK BIN AREA	Heat Stress	03.12.2022	4	0C	25.2 25.6 26.3	25.5	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	mes	UTTAM METYA JOYDIP DEY
PROJECT 13.9 MW ACC BUILDING	Heat Stress	03.12.2022	4	0 <sub>C</sub>	17.2 17.4 18.2 18.3	17.8	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	has	UTTAM METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

pioneer safety industries

Form-30

Register Containing particular of monitoring of work environment required under section 7-A (2)(E) of the Act

Name of the Factory
Factory Address
: BRAVO SPONGE IRON PVT. LTD.
: VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723145, WEST BENGAL.

Particulars of sampling
: HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates			TWA Contaminates a given in Schedule-II	Sampling instrument used and method	Number of workers exposed at th location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)	
Monitorea		of	No. of Reading	Unit	Range	Average	ates as in le-II	ing if used thod	Continuous Exposure	Short time Exposure	rks	re of taking les	block
BFP PUMP CPP 10 MW AREA	Heat Stress	03.12.2022	4	<sup>0</sup> С	24.6 24.8 25.1 25.4	25.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	um Tary	UTTAM METYA JOYDIP DEY
TG BUILDING 10 MW MCC ROOM	Heat Stress	03.12.2022	4	0C	24.3 24.8 26.4 26.7	25.6	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	Som	UTTAM METYA JOYDIP DEY
TG TOP FLOOR 10 MW	Heat Stress	03.12.2022	4	0C	23.1 23.5 23.8 24.5	23.7	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	MM	UTTAM METYA JOYDIP DEY
OLD ACC AREA	Heat Stress	03.12.2022	4	0C	26.5 26.8 27.2 27.6	27.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	hall	UTTAM METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

PIONEER SAFETY INDUSTRIES

### TABLE 1

Threshold Li Occupat	mit Values ional Safety	for Heat Stres and Health A	ss Exposur dministra	e as per tion
% Work			kload	
70 WOIR	Light	Moderate	Heavy*	Very Heavy*
75 to 100% (Continuous)	31.0°C	28.0°C	N/A	N/A
50 to 75%	31.0°C	29.0°C	27.5°C	N/A
25 to 50%	32.0°C	30.0°C	29.0°C	28.0°C
0 to 25%	32.5°C	31.5°C	30.5°C	30.0°C

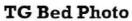
<sup>\*</sup> Criteria values are not provided for Heavy/Very Heavy work for continuous and rest 25%, because of the extreme physical strain. Detailed job hazard analyses and physiological monitoring should be used for these cases rather than these screening criteria.





Pellet 1 Cooler Floor Photo





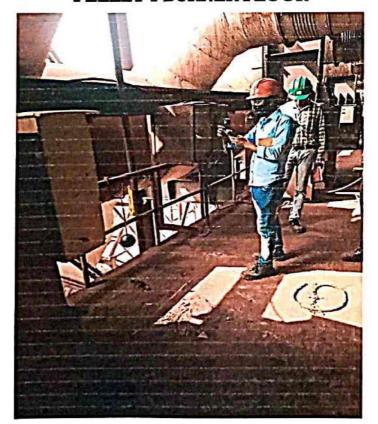




PIONEER SAFETY INDUSTRIES



PELLET 1 BURNER FLOOR

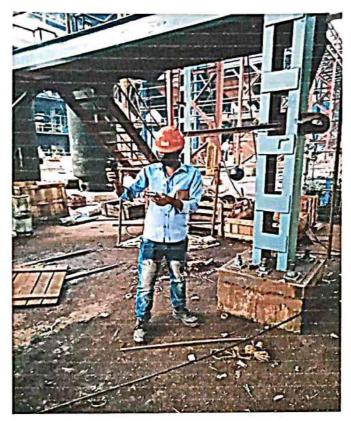


Kolkata ST

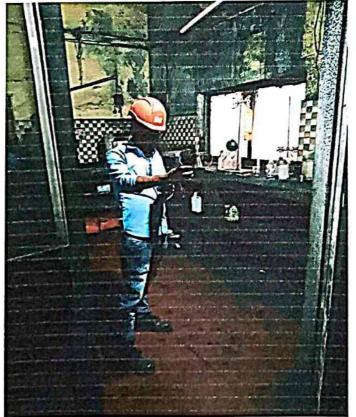
TG Return Area Photo



PIONEER SAFETY INDUSTRIES



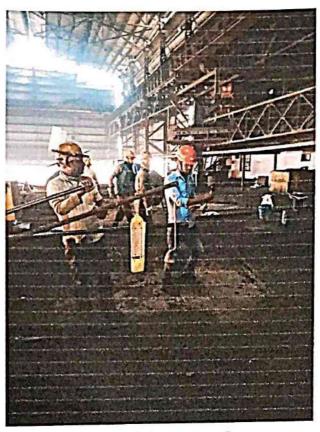
PROJECT WHRB 13.9 MW



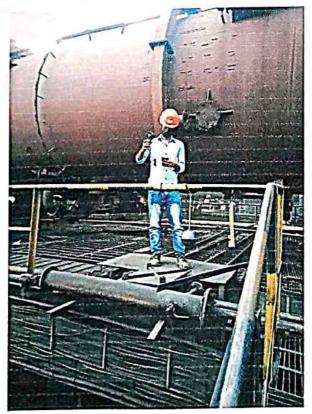
DRI QC LAB HEAT ZONE







**FURNACE NO B1** 

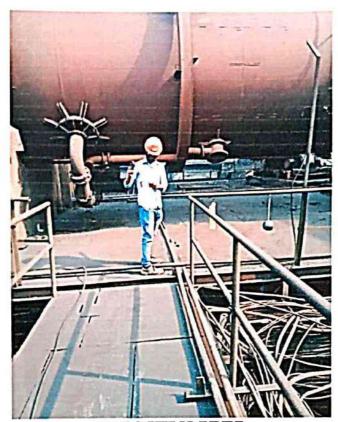


DRI 1 KILN AREA





PIONEER SAFETY INDUSTRIES



DRI 2 KILN AREA

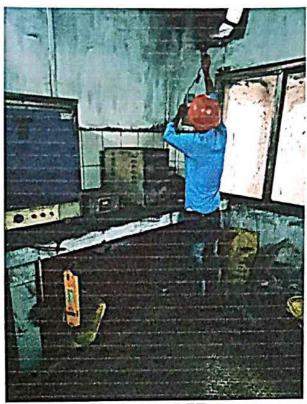




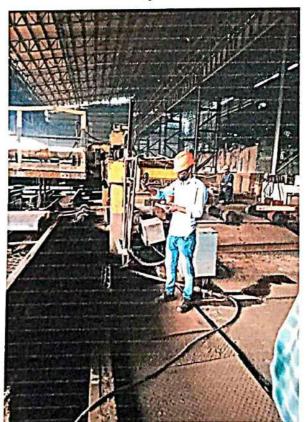
DRI 3 DSC AREA



PIONEER SAFETY INDUSTRIES



CPP QC LAB



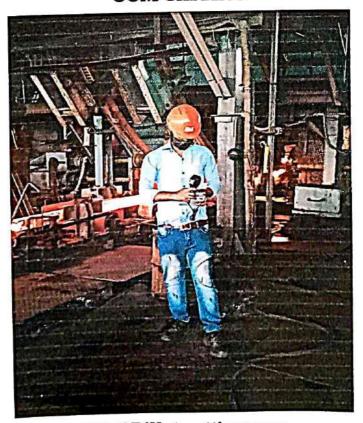


**CCM Cooling Belt** 





**CCM CASTING** 

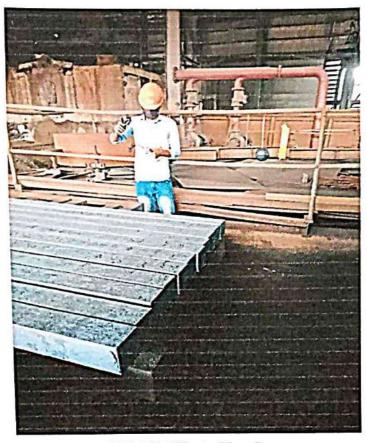


**CCM** Billet cutting area





PIONEER SAFETY INDUSTRIES



**CCM Billets Yards** 



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# Acknowledgement

The team is grateful to the management and employees of BRAVO SPONGE IRON PVT. LTD. for their manufacturing plant situated VILL.: MOHUDA, P.O.: RUKNI, P.S.: PARA NEAR RUKNI RAILWAY STATION, DIST.: PURULIA, PIN: 723 145, WEST BENGAL for extending their full cooperation during the period of conducting the examination.





## Conclusion

On the basis of the assessment of the hazard control arrangement as noted under various parts and considering the observations on the Work Zone Monitoring as stated when concluded. It is found that sincere attention is paid by the management for the safety and health of its employees.

However, it may please be noted that there is always a scope of further improvement.

Audited by -

(Sk. Abdul Faruk)

B. Tech. (Chemical Engineer) Competent Person

SK. ABDUL FARUK
B. Tech (Chemical)
Competent Person
U/s 36 of Factories Act.
Director of Factories
(Govt. of West Bengal)



### GOVERNMENT OF WEST BENGAL DIRECTORATE OF FACTORIES

New Secretariat Buildings, (8th floor) 1, Kiron Sankar Roy Road, Kolkata - 700 001.

Dated, 08:07, 2022

### Form No. 29B (Sec. Sub rule (3) of rule - 2A)

Form of certificate of Competency issued to a person or an Institution in pursuance of rule 2A of the West Bengal Factories Rules, 1958 made under section 2(Ca) read with Section 112 of the Factories Act, 1948

I, Shri Ashis Kumar Shit, Director of Factories/ Chief Inspector of Factories, West Bengal in exercise of the power conferred on me under Section 2(Ca) of the Factories Act. 1948 and the Rules made there under hereby recognize M/s. Pioneer Safety Industries, "Yashoda Business Centre", 85, Bentinck Street, 5th Floor, Room No. 9, Kolkata 700001, having employed therein Sk. Abdul Faruk, possessing requisite qualification and experience of the said organization and facilities available therein as competent person for the purpose of carrying out tests, examinations inspections and certification of safety for precautions against dangerous fumes, gases, etc. in a factory as stipulated under Section 36 of the Factories Act, 1948 and the rules made there under.

The certificate is valid from 02.08.2022 to 01.08.2023.

This certificate is issued subject to the conditions stipulated hereunder.

- i. Tests, examinations and Inspections shall be carried out in accordance with the provisions of the Act and Rules made there under.
- ii. Tests, examinations and inspections shall be carried out under direct supervision of the competent person.
- iii. In the event of any change in the facilities or the above named competent person leaving the organization, this certificate shall stand cancelled.
- The details of tests, examinations and inspections shall be intimated to the Inspector of Factories of the area at least iv. 7 (seven) days in advance for his/her scrutiny failing which this certificate shall stand cancelled.
- In case tests, examinations and Inspections have been carried out in a manner which is inconsistent with the ٧. intent or purpose of the Act and the Rules made there under or there is omission to act as required under the Act and Rules made there under this certificate shall stand cancelled.
- Copies of examination of certificate in all cases shall be forwarded to the Inspector of Factories of the area. vi.
- The Institution recognized as competent person shall keep the Chief Inspector of Factories informed of the vii. names, designations and qualifications of the persons authorized by it to carry out tests, Inspections and examinations and their records shall be kept in a register.
- The facilities including digital oxygen analyzer with suitable probe, multipoint gas detector & explosimeter viii. shall be in good working order and periodically calibrated as per manufacturer's instructions and National Standard.

Signature of Sk. Abdul Faruk is attested below.

Attested

Ashis Kumar Shit

Director /Chief Inspector of Factories, West Bengal

Ashis Kumar Shit Director /Chief Inspector of Factories, West Bengal Prepared by: -



## PIONEER SAFETY INDUSTRIES

### COMPETENT AUTHORITY

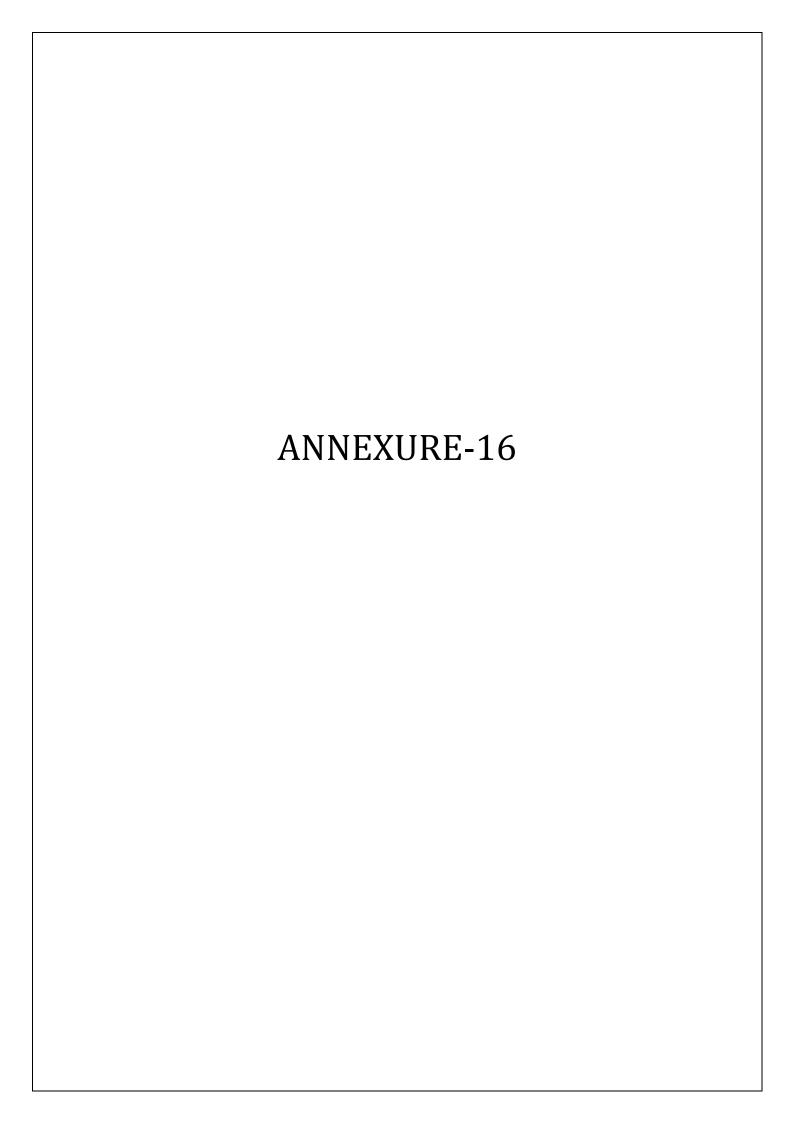
Approved by Chief Inspector of Factories, Govt. of West Bengal under Factories Act Under Section 21 (2), 28, 29, 31 and 36 (6 & 112) of the Factories Act

SAFETY AUDIT, ELECTRICAL SAFETY AUDIT, WORK ZONE MONITORING, JOB SAFETY ANALYSIS, HIRA / HAZOP STUDY, STABILITY TEST & CERTIFICATION, FIRE SAFETY CERTIFICATION, SAFETY TRAINING, NDT AND DP TEST

### : OFFICE :

"YASHODA BUSINESS CENTRE", 85, Bentinck Street, 5<sup>th</sup> Floor, Room No. 9, Kolkata – 700 001.

> Mobile: 8583992136 / 7003065634 / 9433120475 E-mail: pioneersafetyindustries@gmail.com





Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

## **HEALTH CARD OF EMPLOYEE**

Registration No	Date: 28 16 123.
Nama / aveMillanda Masda	Father/Husband NiKhil Hasda
Name Lax My Canth This Ove	21 Sex M Blood Group of
Department <u>Pellet - Mech</u> Age	
Relevant Personal History	NO
Relevant Family History	
Prelisting Disease if any	N 0
Physical Examination:	
Weight 48 Kg.	
General Health	Grand
Anemia	
Jaundice	
Pulse	105
Blood Pressure	115/75
RH Factor Hb-12%, ESR- 20	Te-6000, Ney-70 Mono-02 BOSO-03
ChestEC	9 - Normal
CNS	
Eye/Ear Fye- R/L 6/6 C	V Normal/ For Bothearing Solisfied
Investigation (if any)	V 77
Further Advice	

Metreeketi tsy

Bravo Specifical Politice LTD.

Mahuda, P.O. Rukri Dist Punita (W.E.)

### Patient Record

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LCKESHARANANDA

## LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist : Purulia, Pin : 723155

Ph. No.: 8335045423/ 8335045424, Email id: lef.nanritam@gmail.com

<u> </u>	11/1	00501	BLOCK
SI.No.	77	VENUE 1351PL	
DATE	28/06/23		DISTRICT
MR NO	C	GP	

Name: Lakikanta 7	trada Cio:			Relation		
Address :	Age: 25	Ma	le 🖳	Female		
District :	Contact No.	:	. 1			
AADHAR :	Category:	s c	ST	OBC	OTHERS	
C/o fortRowlin	e check up.					
Medical History HTN I	DM BR. ASTHMA IHE	ARTHR	RITIS	OTH	HERS	

with duration								
Family History								
H/O Allergy								_
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LIDS								
CONJUNCTIVA	12.7			İ				
CORNEA						i.		
SCLERA					9			
ANT. CHAMBER								
IRIS								
PUPIL								
LENS								
OCULAR MOVEMENT								
IOP								
NLP				T				

## =--<del>\$---\$---\$---\$</del>

## কি কি পরিযেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।
  - যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পাইন নম্বর ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

## **HEALTH CARD OF EMPLOYEE**

Registration No	Date: 28/0/13	-
Name M.D Firoz Alam	Father/Husband Abon Juumn/ Ansmy	-
Department Pelle I - Benifical Age_	35 Sex M Blood Group AB+	E
Relevant Personal History	4.6	•
Relevant Family History	N 0	<u> </u>
Prelisting Disease if any	N O	
Physical Examination:		
Weight 63 Kg.		
General Health	Glood	-
Anemia	NO	
Jaundice	NO	ā
Pulse	20-50 July 10-50 July	-
Blood Pressure	120/80	=
RH Factor Hb-12%, ESR-20	7.7C-7800, Neu-62, Ly-30, 60-63	Buro-4
ChestFCF	1 - Normal	<u>-</u> : : : : : : : : : : : : : : : : : : :
CNS		-
Eye/Ear Eye-R/L 6/6	ex Normal/For - Bothering - Hear	ring snh
Investigation (if any)		- ned,mm
Further Advice		===

Medical Officers

### atient Record

### LOKESWARANANDA EYE FOUNDATION

### (A Project of NANRITAM)

LOKESWARANANDA

Barandanga, Para, Dist: Purulia, Pin: 723155

Ph. No.: 8335045423/8335045424, Email id: lef.nanritam@gmail.com

ı.No.	50	VENUE	DC101	BLOCK
DATE	28/06/23	ACHOE	BOIPL	DISTRICT
MR NO	c	GP		

Name: Md. Figzaj Alam	Clo:	20		R	elation
Address:	Age: 35/   Male   Female				
District :	Contact No.	: `	Ÿ		
AADHAR :	Category :	SC	ST	OBC	OTHERS

	1		1 \			
CIO DOVI	Nea	H) (B	(F)			
PH						
Medical History with duration	HTN	DM	BR. ASTHMA	IHD	ARTHRITIS	OTHERS
Family History		-				
H/O Allergy						
PGP	RE			LE	a the day	
VA		6/9	. 1/0		da	NA
TLE	Es no service	1	200			$\overline{}$
SLE	1	0			(0	
LIDS		and the state of t	Δ			
CONJUNCTIVA					÷	
CORNEA					*************	
SCLERA			1		N.	
ANT. CHAMBER						
IRIS				_	2	
PUPIL			Λ	10	NR	
LENS				7		
OCULAR MOVEMENT	1			-		88
IOP						
NLP						

## কি কি পরিষেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পলাইন নশ্বর - ৭৬০২১৩১০৩ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

## **HEALTH CARD OF EMPLOYEE**

egistration No Date: 28/6/23
ame Barik Karmakar Father/Husband Dhanajoy Karmakar
epartment Pellet Mecha. Age 39 Sex My Blood Group 0+
elevant Personal HistoryNo
elevant Family HistoryNo
relisting Disease if any
hysical Examination:
Veight 69 kg.
General Health $\mathcal{C}$ oo $\mathcal{C}$ ,
nemiaNo
aundice
ulse
lood Pressure 125/80,
B/F HFactor Hb.19/1 ESR-13, TC-8500 NE 55, LY 33, MO-7, EO-4, BAOI
Chest_ECQ- Normal.
CNS
ye/Ear Eye L/R-616 IVB, Both ear hearning Sensivity Novoul
nvestigation (if any)
urther Advice

Medication Officero.

Mahuda, P.O. Rukni Dist Punda (W.B.

## **Patient Record**

0

## LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

(A Project of RARKITAM)

		Barandanga, Para,	Dist : Purulia,	Pin: 723155
Ph	No	8335045423/8335045	424. Email id:	lef.nanritam@gmail.c

LOKESWARANANDA	Ph.	No.: 8335045423/	8335045424, Ema	il id : lef.nanritam@gmail co
SI.No. 46	VENUE RS	1 21		BLOCK
	venue BS	174		DISTRICT
MR NO C	GP			DISTRICT
MK NO   C				
Name: Basi	K Karmakar	Clo:		Relation
Address :		Age : 39	Male [	Female 🗌
District :	ē. <sup>101</sup>	Contact No.	:	
AADHAR :		Category :	SC ST	OBC OTHERS
		·		
CIO DAV/	Near) (B/E	)		
PH (	14 (1) (1)	/		
Medical History	HTN DM BR.	. ASTHMA IHD	ARTHRITIS	OTHERS
with duration				
Family History H/O Allergy				
	RE	LE		
PGP R	'-			
VA	FICA		CJEP.	j 2 - 1
TLE			1	<u> </u>
SLE				M
discolaring	X (O)	/  -	///	) 1/
LIDS				
CONJUNCTIVA	11			
CORNEA				-
SCLERA			19	**************************************
ANT. CHAMBER				
IRIS				
PUPIL		131	1/2	
LENS				
OCULAR MOVEMENT				
IOP				
NLP				

## কি কি পরিযেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পলাইন নম্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

## **HEALTH CARD OF EMPLOYEE**

egistration No Date: $\frac{98/6/23}{}$
Jame Abhay Mondal Father/Husband Ujjal Mandal.
Department Pellet F & I Age 25 Sex 11 Blood Group 0+
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight 75kg.
General Health
AnemiaNo
Jaundice
Pulse
Blood Pressure = 120/80.
BIF Hb-11, FSR-14, TC-9000, NE-60, LY-30 MO-7 E0-2, BA-01
Chest ECG- Marmul.
CNS
Eye/Ear Eye-LIR-GG NG, Bothear hearing. Sensivity Normal
Investigation (if any)
Further Advice

Medical Officer by Bravo Sponge Iron PVT TO

## **Patient Record**

1061

A.No.

DATE

MR NO

## LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

0 Ph. No.: 8335045423/ 8335045424, Email id: lef.nanritam@gmail.com LOKESWARANANDA

Barandanga, Para, Dist: Purulia, Pin: 723155

	VENUE	BSIPL
$\exists 1$	GP	

BLOCK DISTRICT

Name: Alouhy Mana	CIO CIO	C/o: Relation			
Address:	Age	: 25	Male [	Female	
District :		ntact No. :			
District .					
AADHAR :	Cat	egory :	SC ST	OBC	OTHERS
C/o	_				
PH					
Medical History HTN DM with duration	BR. AST	HMA IHD	ARTHRITIS	OTH	HERS
Family History					
H/O Allergy					
PGP RE	~	LE	0		
VA	Sh			, _	KK A
TLE		× =	A.		
SLE	IM		11	M	
			110	)	<b>&gt;</b>
			1		
LIDS	11 V		y: 1		
CONJUNCTIVA					
CORNEA					
SCLERA			2		
ANT. CHAMBER					
IRIS					
PUPIL					
LENS					
OCULAR MOVEMENT	******				
IOP					

## কি কি পরিষেবা দেওয়া হয় ?

NLP

- ছানি অপারেশন আই.ও.এল., ফেকো
- গ্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন ٤,
- চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন 0.
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন। 8.

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পলাইন নশ্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

## **HEALTH CARD OF EMPLOYEE**

Registration No. Date: 28/6/23.
Registration No
Name Susanta Bauri Father/Husband Ramcharan Bauri
Department SMS Lab Age 25 YYS Sex Male Blood Group Ot Positive
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight 55 Kg/S
General Health
AnemiaNO
Jaundice
Pulse
Blood Pressure 125/80
Blood Pressure 125/80  Blood For Hby 12.5, ESR-08, TC-6400, NE-68, LY-22, EO-05, MO-02, BA-RH Factor Hby 12.5, ESR-08, TC-6400, NE-68, LY-22, EO-05.
Chest ECU- Ntomal
CNS
Eye/Ear EYE-VA, RE-6/8 He Hormal, Both earl heaving - Hormal
Investigation (if any)
Further Advice

Medical Coffee Purch (W.B.)

## **Patient Record**

## LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

LOKEWARANANDA

Barandanga, Para, Dist: Purulia, Pin: 723155

Ph. No.: 8335045423/8335045424, Email id: lef nanritam@gmail.com

SI.No.	36	VENUE BSIP	BLOCK
DATE	28/06/23	22+1	DISTRICT
MR NO	c '	GP	

Name: Sulanta B	awri	C/o:			F	Relation	
Address:				Age: 25   Male 21			
District :		Contact No. :					
AADHAR :	R:			ST	ОВС	OTHERS	
PH		hock up		DITIC	OTL	IERS	
Medical History HTN with duration Family History	DM BR	. ASTHMA IHE	ARTH	KIIIS	OIF	IERS	
PGP RE	1.	LE					
VA	E/6, NE	5	45/1	5,14		17 = -	
TLE SLE	0		2	0		<b>&gt;</b>	
LIDS	F %			4 55	118/1/11	Ŋ	
CONJUNCTIVA							
CORNEA //DC	quecel	ac			<u> </u>		
SCLERA	/						
ANT. CHAMBER							
IRIS		- 10	. P3				
PUPIL	7	MSI	<u>w</u> .				
CULAR MOVEMENT							
IOP							
IUr							

## কি কি পরিষেবা দেওয়া হয় ?

NLP

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পলাইন নম্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

### **HEALTH CARD OF EMPLOYEE**

Date: 28/6/23
Registration No
Name_Phulchand Mahalo Father/Husband Late Khagpati Mahato
Department <u>Pellet oper Age 51775</u> Sex <u>Male</u> Blood Group <u>B+ positive</u>
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight 667kg15
General Health
AnemiaN0
Jaundice
Pulse76
Blood Pressure 130/85
Blood For Hby, 13.5, ESRT12, Te-7000, NE-62, LY-35, E0-03, MO-0, BA
Chest ECG- Normal
CNS
Eye/Ear EyE-VA. RE-6/6 NG, Both Ear hearing, Sensitivity - Norma
Investigation (if any)
Further Advice

Medifiel Cities by

Bravo Spongalion By LTD.

Mahuda P.O. Ruyii Dis Punita W.B.

### **Patient Record**

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LONESWARANANDA

### LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist : Purulia, Pin : 723155

Ph. No.: 8335045423/ 8335045424, Email id : lef.nanritam@gmail.com

•				1 11. 110 00000
1	SI.No.	35	VENUE	RCTDI
1	DATE	28/06/23		00116
1	MR NO	C	GP	

DISTRICT

Name: Fulci	hand	Mahato	C/o:				R	elation
Address:			Age : 5	Age: 54   Male [] Femal				
District :		3	Contact No. :					
AADHAR :			Category	<i>'</i> :	sc	ST	ОВС	OTHERS
612								
C/o PH								
Medical History with duration	HTN	DM B	R. ASTHMA	IHD	ARTH	RITIS	OT	HERS
Family History								
H/O Allergy								
PGP	RE	C	) _	LE		c	\	a
VA		$ \circ_1$	X			9	121	
TLE SLE	<	0		7 2	2			>
LIDS								
CONJUNCTIVA								
CORNEA								
SCLERA								
ANT. CHAMBER			E		1			
IRIS	(1		1					311
PUPIL			·					
LENS								
OCULAR MOVEMENT								
IOP			į ·					

## কি কি পরিষেবা দেওয়া হয় ?

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NLP

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২. গ্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- ৪. চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পলাইন নশ্বর - ৭৬০২১৩১০৩ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

### **HEALTH CARD OF EMPLOYEE**

Registration No Date:
Name <u>Hemanta Majee</u> Father/Husband <u>Baranashi Majee</u>
Department Pellet ESI Age 21 7r's Sex Male Blood Group Ot Pasifive
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight 48Kgis
General Health $Good$ .
AnemiaNo
JaundiceNO
Pulse76
Blood Pressure 120/80 Blood For
RH Factor H61.13.0, ESR-12, TC-7200, NE-68, LY-24, EO-05, MO-02, BA-
Chest - ECG - Normal
CNS
Eye/Ear EYE-VA: RE-6/6 HENormal, Both earhearing - Hormel
Investigation (if any)
Further Advice

Medicable Distriction Minutes, P.O. Rukin Dist Punda AV. R.)

## **Patient Record**

## LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para. Dist : Purulia, Pin : 723155

Ph. No.: 8335045423/ 8335045424, Email id: lef.nanritam@gmail.com

SI.No.	39
DATE	28/06/23
MR NO	C

(0)

OKESWARANANDA

VENUE	BSIPL	1)
GP		

BLOCK

Name: Hem	anta	Majee	C/o:					elation
Address :			Age: 2   Male Female					
District :			Contact					
AADHAR:			Category	<i>i</i> :	s c	ST	ОВС	OTHERS
Clo								
PH		DM IDD	. ASTHMA	THD	ARTH	RITIS	OTI	HERS
Medical History with duration	HTN	DM BF	. ASTITIVIA	1110	AIVIU	11110		
Family History		L						
H/O Allergy			۸					
PGP	RE	0	$\rho$	LE		4	D	0
VA			12			6	110	- = -
TLE			51 51	1, 11	,			
SLE	<	$(\circ)$			1	$\mathcal{C}$		>
LIDS			0 5					
CONJUNCTIVA		_			-			
CORNEA								
SCLERA			Jt.	0	}			
ANT. CHAMBER								
IRIS	1 1				-	1		
PUPIL		11			C	/		
LENS					V			
OCULAR MOVEMENT								
IOP								
NLP	-							

## কি কি পরিষেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- ৪. চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পলাইন নশ্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

### **HEALTH CARD OF EMPLOYEE**

Registration No
Name Partha Parathi Majee Father/Husband Sanker Majee.
Department Pellet E & I Age 26. Sex M Blood Group A+
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight 60kg.
General Health Good.
AnemiaNo
Jaundice
Pulse
Blood Pressure 120/80.
BHESCHOT HB-137. ESA-13, TC-7000, NE-55, LY-35, MO-5, EO-3, BA-2
Chest ECA - Normul.
CNS
Eye/Ear Eye- L/A- 6/6 No, Both ear hearing Sensivity Novanul
Investigation (if any)
Further Advice

Medicat Recret by
Bravo Sponge Iron PY 5 ITO
Lahuda, P.O. Rukri Det Purus (W.B.)

#### atient Record

#### LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist : Purulia, Pin : 723155

Ph. No.: 8335045423/ 8335045424, Email id: lef.nanritam@gmail.com

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πE	28/06/23
AR NO	C

LOKESWARANANDA

VENUE	BSIPL
GP	

BLOCK

Name : Both	asarathi Maje	Clo:				Н К	elation	
Address: District: AADHAR:		Age:	Age: 26 Male PF			Female	Female [	
		Contact	Contact No. :					
		Categor	y :	s c	ST	OBC	OTHERS	
C/o ROUF	in check up	5-						
Medical History with duration	HTN DM E	BR. ASTHMA	IHD	ARTH	RITIS	OTH	IERS	
Family History H/O Allergy								
PGP	RE ./	_	LE		,		40	
VA	6/6,1	V6		F	15,1	16		
TLE SLE	0		2	1	C		·	
LIDS								
CONJUNCTIVA	(1)							
CORNEA								
SCLERA								
ANT. CHAMBER								
IRIS		2						
PUPIL		Λ	T) A	JR				

# কি কি পরিষেবা দেওয়া হয় ?

#### ১. ছানি অপারেশন - আই.ও.এল., ফেকো

LENS

IOP NLP

OCULAR MOVEMENT

- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেঙ্গলাইন নম্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

#### **HEALTH CARD OF EMPLOYEE**

Registration No Date: 28/6/23
Name Indramil Choudhary Father/Husband Alok Choudhary.
Department <u>Civil</u> Age <u>29</u> Sex <u>M</u> Blood Group <u>A+</u>
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight 100 kg.
General Health Good .
Anemia
Jaundice
Pulse
Blood Pressure 125/80
BH Factor Hb7 - 137. , ESA- 15 , TC-6000 , NE-60, LY-35, MO-2, EO-02, BA-01
ChestEC'A- Normal.
CNS
eye/Ear Eye-VA-REL-6/6 NE Hearing Sensivity in Both Fars - Normal.
nvestigation (if any)
urther Advice

Medical Officer
Bravo Sponge from PVI LTD.
Mahura, P.O. Medical Officer, B.)

### Patient Record

#### LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist: Purulia, Pin: 723155

	LOKESWARANANDA
šI.No.	16
DATE	28/06/23

(0

MR NO

Ph. No.: 8335045423/8335045424, Email id: lef.nanritam@gmail.com BSIPL VENUE GP

BLOCK DISTRICT

Name: Indoranil Chavel	hory	C/o:				Relation	
Address :	Age: 29   Male   Female						
District :		Contact No.	:				
AADHAR :		Category :	sc	ST	ОВС	OTHERS	
PH							
Medical History HTN DM with duration Family History	BR	. ASTHMA IHD	ARTH	RITIS	OTI	HERS	
PGP RE		LE		. 1			
VA (U/A) 6/6	<u> </u>	6		6/6,	N6		
SLE			4	0		Š	
LIDS							
CONJUNCTIVA			4				
CORNEA			10P				
SCLERA				5			
ANT. CHAMBER							
IRIS		Allo	ND.				
PUPIL		NS	VK				
LENS OCULAR MOVEMENT	ATT	-Ina li	A.	3000	7 . 0 1	adula	
IOP	UE	ranative	1//	VOIG	CIL	(July)	
NLP				-//			

#### কি কি পরিষেবা দেওয়া হয় ?

- ছানি অপারেশন আই.ও.এল., ফেকো
- প্রকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন 2
- চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন 9.
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্ললাইন নম্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

#### **HEALTH CARD OF EMPLOYEE**

Registration No Date: 28/6/23
Name_ Rourab. Bemarjee. Father/Husband Nibas. Bemarjee
Department Civil Age 24 Sex 11 Blood Group 0+
Relevant Personal HistoryNo
Relevant Family HistoryNo
Prelisting Disease if any
Physical Examination:
Weight 72 kg.
General Health
Anemia <i>No</i>
Jaundice
Pulse88.
Blood Pressure = 120/80.
BIF RH Factor 176-127. ,ESR-17, TC-7000, NE-65, Ly-30, MO-03, E0-02 BA-01
ChestECaWarmw.
CNS
Eye/Ear Eye- L/A - 6/6. INE, Both ear hearing. Sensivity Normal
Investigation (if any)
Further Advice

Medical Officer
Bravo Spong Chaked by D.
Mahuda, P.O. Medical Officer
Mahuda, P.O. Medical Officer
Mahuda, P.O. Medical Officer
Mahuda, P.O. Medical Officer
Medical Officer

# atient Record

0

# LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist : Purulia, Pin : 723155

Ph No : 8335045423/833504	15424, Email id : lef nanritam@gmail.com
7 11 10 100000 10 10 10 10	BLOCK
VENUE 135IPL	

10		DETRI	BLOCK
Ao. 17	VENUE	1351 PL	DISTRICT
JATE 28/06/2	GP		DISTRICT
MR NO C			Polation

lame: Gantab Banervice	Clo:		Kelation
Address:	Age : 24	Male 🖳	Female 🗌
District :	Contact No.	<b>:</b>	
AADHAR :	Category :	SC ST	OBC OTHER
Clo			
PH -		-1	OTHERS
Medical History HTN DM with duration	BR. ASTHMA IHI	DIARTHRITIS	OTHERS
Family History			
H/O Allergy			
PGP RE	LE	10	
	}	1 4/	
VA	1	<u> </u>	o '
TLE			
SLE	VI	110	
		210	
LIDS			
CONJUNCTIVA			
CORNEA	1		
SCLERA			
		<i></i>	
ANT. CHAMBER			
PUPIL			
LENS			
OCULAR MOVEMENT			
IOP			
NLP			

### কি কি পরিষেবা দেওয়া হয় ?

- ছানি অপারেশন আই.ও.এল., ফেকো
- প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন 2
- চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন O.
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাক ডিটাচ্মেন্ট) অপারেশন। 8.
  - যে কোন প্রকার তথ্যের জন্য আমাদের হেল্ললাইন নম্বর বিভ০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

# **HEALTH CARD OF EMPLOYEE**

<u> 2</u>	Date: 28/6/23
Registration No	nd Parlin RiGoakarma
Name Biplob. Biswakama. Father/Husba	M Pland Group B+
Department Pellet Melika Age 41 Sex	x Blood Group
Relevant Personal History	
Relevant Family History	
Prelisting Disease if any	
Physical Examination:	
Weight $58 kg$	
General Health	
Anemia	
Jaundice	
Pulse90	
Blood Pressure 120/80  B/F RH Factor H6-12% TC-8000, NE-65, Ly-2	5, MO-05, EO-03, BA-02
Chest_ EGG - Normal.	
Eye/Ear Eye-VA-RH-6/6 Ng / Both ear	hearing Censitivity. Normal.
Investigation (if any)	
Further Advice	

Medical Officer by Brave Sponge Iron Pyfff 70: Mahuda, P.O. Rusti Dat Purusa (W.B. Atient Record

### LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist: Purulia, Pin: 723155

Daramoungari		
Ph No.: 8335045423/8335045424	, Email id : lef nanritam@gmail o	com

10 THARDENANDA	DOTO	BLOCK
ATE 28/06/	VENUE 351PL	DISTRICT
AR NO C	GP	
		Dalation

20.110.0.10	Clo:			R	elation	
Name: Billab BilWaka	Zma cio.	<del></del>			<del></del>	
Address :	Age : 4	Age: 4) Male AF			Female 📋	
District :	Contact No.	Contact No. :				
AADHAR :	Category :	SC	ST	ОВС	OTHERS	
Cio DO V Near) (B/C) PH  Medical History HTN DM with duration  Family History H/O Allergy PGP RE  VA TLE	BR. ASTHMA IHI		, NA	OTH	IERS	
LIDS			0		<b>&gt;</b>	
CONJUNCTIVA				Contract Con		
CORNEA						
SCLERA			- ;			
ANT. CHAMBER						
IRIS	×					
PUPIL	NS	NR				
LENS						
OCULAR MOVEMENT						
IOP						
NLP						

#### কি কি পরিষেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পাইন নশ্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

# **HEALTH CARD OF EMPLOYEE**

	00/0/22
Registration No	te: <u>28/6/23</u>
1 0.1 Eather/Husband Late	Dhananjoy Pal
Name Mantu Pal Father/Husband Late	Blood Group O-Negative
Name Mantural rather, sex Male Department <u>Civil</u> Age <u>31785</u> Sex <u>Male</u>	01000
Relevant Personal HistoryND	
Relevant Family HistoryNO	•
Prelisting Disease if any NO	
Physical Examination:	
Weight 8374915	
General Health Good-	
AnemiaNO	
JaundiceNO	
Pulse76	
Blood Pressure 125/80	
Blood Pressure	2, LY-35, E0-02, MO-01, BA
Chest ECG-Normal	
CNS	
Eye/Ear EYE-VA-RE 6/8 NB, Both Ear her	mang, Sensitivity-Normal
Investigation (if any)	
Further Advice	

Machine Conficerd.

Bravo Spanylical Officerd.

Mahuda, P.O. Rukni Dist Purum (W.B.)

#### LOKESWARANANDA EYE FOUNDATION ent Record (A Project of NANRITAM) Barandanga, Para, Dist: Purulia, Pin: 723155 Ph. No.: 8335045423/8335045424, Email id: lef nanritam@gmail.com BLOCK VENUE DISTRICT G P AR NO Relation Clo: Mantu Name: Male Female Age: Address : Contact No. : District: OTHERS OBC SC ST Category: AADHAR : Clo PH OTHERS BR. ASTHMA IHD ARTHRITIS DM Medical History HTN with duration Family History H/O Allergy LE RE PGP VA TLE SLE LIDS CONJUNCTIVA CORNEA SCLERA ANT. CHAMBER IRIS PUPIL LENS OCULAR MOVEMENT IOP NLP কি কি পরিষেবা দেওয়া হয় ? ছানি অপারেশন - আই.ও.এল., ফেকো 🎊 থকোমা - রোগ নির্ণয়, চিকিৎসা ও অপারেশন চোখের পর্দা (রেটিনা) - রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) — চিকিৎসা ও অপারেশন ٤. 0. চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন। 8. যে কোন প্রকার তথ্যের জন্য আমাদের হের্মলাইন নম্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

# **HEALTH CARD OF EMPLOYEE**

Date: 28/6/23.
registration No
Name ITHam Kr Bauri Father/Husband Anil Bauri
Department Automobile Age 34 Sex M Blood Group B+
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight $73 kg$ .
General Health (2100d
Anemia
Jaundice
Pulse8 6
Blood Pressure 120/85
RH Factor B/F Hb- 11%, ESR-28, TC-7200, Neu - 50 EU-04 Bas-
ChestECh- Normal
CNS
Eye/Ear Fye-R/c 6/6 CV Normal / For Bothear Hearing Sofish
Investigation (if any)
Further Advice

Merchecked by
Bravo Sporgation ByficeTo.

#### LOKESWARANANDA EYE FOUNDATION atient Record (A Project of NANRITAM) Barandanga, Para, Dist: Purulia, Pin: 723155 0 Ph. No.: 8335045423/8335045424, Email id: lef nanritam@gmail.com OKESWARANANDA BLOCK No. VENUE DATE DISTRICT GP MR NO Relation Name: Utlam Kor. Bawi Clo : Maleu **Female** Age: Address : Contact No. District: OBC **OTHERS** ST Category: SC AADHAR: Clo PH Medical History HTN BR. ASTHMA IHD ARTHRITIS **OTHERS** DM with duration Family History H/O Allergy RE LE PGP VA TLE SLE LIDS CONJUNCTIVA CORNEA SCLERA ANT. CHAMBER IRIS MALCH PUPIL LENS OCULAR MOVEMENT IOP NLP

# কি কি পরিষেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।
  - যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পলাইন নশ্বর ৭৬০২১৩১০৩ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

#### **HEALTH CARD OF EMPLOYEE**

Registration No	Date: <u>28/6/19</u>
Name Bahan Dutta Fathe	er/Husband Ravindra ch. Dutta
Department Pellet oper Age 36	Yrs Sex Male Blood Group Ot positive
Relevant Personal History	
Relevant Family History Nで	
Prelisting Disease if any No	
Physical Examination:	
Weight 83 kg/5	
General Health Good.	
Anemia NO	
Jaundice NO	
Pulse 75	
Blood Pressure 128\85	
RH Factor Hb-125, ESR-18, Te-600	00, NE-62, LY-30, E0-05, MO-02, BA-01
Chest ECG- Normal	
CNS	·
Eye/Ear -> Both ears hearing,	Sensitivity - Normal, Eye-VA-RECIG HC.
Investigation (if any)	
Further Advice	

Medical ecked by
Bravo Sponge Iron PVT, LTD.
Mahuda, P.O. Rurol Dist Purish (W.B.)

LOKESWARANANDA EYE FOUNDATION atient Record (A Project of NANRITAM) Barandanga, Para, Dist : Purulia, Pin : 723155 0 Ph. No.: 8335045423/8335045424, Email id: lef nanritam@gmail.com BLOCK 14 VENUE DISTRICT 28/06/2 G P NO Relation Clo: Name : R Male Female Age: 36 Address : Contact No. : District: OTHERS OBC ST SC Category: AADHAR : Clo DH BR. ASTHMA IHD ARTHRITIS OTHERS DM HTN Medical History with duration Family History H/O Allergy LE RE PGP VA TLE ' SLE LIDS CONJUNCTIVA CORNEA SCLERA ANT. CHAMBER IRIS MSNR PUPIL LENS OCULAR MOVEMENT IOP NLP কি কি পরিষেবা দেওয়া হয় ? ছানি অপারেশন - আই.ও.এশ., ফেকো

- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন 💛
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।
  - যে কোন প্রকার তথ্যের জন্য আমাদের হেম্বলাইন নম্বর ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



VIII-Mahuda, PO-Rukni, Dist-Purulia (WB)

# **HEALTH CARD OF EMPLOYEE**

Posistration No.	¥		Date:	8/6/23.
Registration NoName <u>Badal Misra.</u>	Eather/Hu	shand		
Name /padal ///sra.	_ Father/110	- M	Plood G	roup () +
Department DPI - Mecha. Age			_ 61000 0	Toup
Relevant Personal History	71	0		
Relevant Family History	V	<u> </u>		
Prelisting Disease if any	<u> </u>	8.		
Physical Examination:				
Weight GIKg.	$\wedge$			
General Health	Mood.	·		
Anemia	No			
Jaundice	NO.			
Pulse	95			
Blood Pressure	25/80.			
Blood Pressure 1 BLF Hby,-11/2 ESR-12	TC800,NE	Eco, Ly.31,	Mo + 4, E	0-03, Ba-02
ChestFGO/	Vorns	d'		
CNS				
Eye/Ear Eye. L/A C/12	Far. Bot	h hearing	Jensini	y. Norm!
Investigation (if any)		· · · · · · · · · · · · · · · · · · ·		
Further Advice				93n ·

Medical Officery
Bravo Sponge Iron PVT. LTD.
Mahuda, P.O. Rushins Pulling (W.B.)

#### atient Record

LOKESWARANANDA

### LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist: Purulia, Pin: 723155

Ph. No.: 8335045423/8335045424, Email id : lef.nanritam@gmail.com

- 3				Fil. No 65550454257 6555545424, 21114 115
1	SI.No.	07	VENUE	DC7D1
	DATE	28/06/23	1	DOIPL
	MR NO	C	GP	
1	1111	1		

DISTRICT

Name: Bodal Miss	02a Clo:	Relation			
Address :	Age: 53	Male Female			
District :	Contact No. :				
AADHAR :	Category: S	C ST OBC OTHERS			
*/	)	H .			
Cio	1/				
PH	~				
Medical History HTN with duration	DM BR. ASTHMA IHD A	RTHRITIS OTHERS			
Family History					
H/O Allergy					
PGP RE	C O LE	$\wedge$ $\wedge$			
VA	9(72)				
TLE					
SLE					
LIDS	2				
CONJUNCTIVA					
CORNEA					
SCLERA					
ANT. CHAMBER					
IRIS					
PUPIL					
LENS					
OCULAR MOVEMENT					
IOP					
NLP					

### কি কি পরিষেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্রকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেলন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- 8. চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনারা ডিটাচ্মেন্ট) অপারেশন।
  - যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পাইন নম্বর ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

#### **HEALTH CARD OF EMPLOYEE**

Registration No. Date: 28   S   23.
Name Tarun Bauri Father/Husband Brinchi Bauri
Department C. P. P. Mech Age 25 Sex M Blood Group A +
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight 50 Kg
General Health 600d
Anemia
Jaundice
Pulse
Blood Pressure 120/80
RH Factor Hb-13% FSR-25, TC-6500, New- 60 E0-02 BOS-02
ChestECG - Nmma/
CNS
Eye/Ear Eye-R/L 6/6, NSON Normal / Enr-Bothear Henring solished
Investigation (if any)
Further Advice

Medical Officery Bravo Sponge Iron Pyt. LTD. Manua P.O. Riving Pitter W.B.)

### Patient Record

### LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

in: 723155

(O	Barandanga, Para, Dist : Purulia, P
TOLINA NOA	Ph. No.: 8335045423/8335045424, Email id.: le

ef nanritam@gmail.com

4.No. 216 VENUE	BSIPL
DATE 28 (06/23 GP	DISTRICT
Name: Tarun Baur	C/o: Relation
	Age: 25   Male   Female
Address:	
District :	Contact No. :
AADHAR :	Category: SC ST OBC OTHER
C/o PH Medical History HTN DM with duration Family History	BR. ASTHMA IND ARTHRITIS OTHERS
H/O Allergy	
PGP RE	LE
VA	9 1 9
TLE	
SLE	
LIDS	
CONJUNCTIVA	T 00
CORNEA	
SCLERA	
ANT. CHAMBER	L
IDIS	(9)

### कि कि পরিষেবা দেওয়া হয় ?

- <del>3-</del>-

PUPIL LENS

IOP NLP

OCULAR MOVEMENT

- ছানি অপারেশন আই.ও.এল., ফেকো
- গ্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন 📈 2
- চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন 9.
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন। 8.
  - যে কোন প্রকার তথ্যের জন্য আমাদের হেলপাইন নম্বর ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

### **HEALTH CARD OF EMPLOYEE**

Registration No		Date:	28/6/2	9.
Name Gaya Pal Fa	ther/Husband			
Department Pellet Mechage				
Relevant Personal History	*	<del></del>		
Relevant Family History	No			
Prelisting Disease if any	No.			
Physical Examination:				
Weight 55-kg.				
General Health	and.			
Anemia	(Vo			
Juditatice	No.			
ruisc	37.			
Blood Pressure 120	180			
RH Factor 16-12/ ESA-12, TC-9	1800, IVE-60, L	y 33, Mo-	5, E0-0,	BA-01
Chest ECa - Norm	al·			<del></del>
CNS				
Eye/Ear <u>Eye</u> . <u>L/R</u> - <u>6/6</u> , <u>N8</u> ,	Both ear hearn	of Sensi	vily Nor	anal.
Investigation (if any)				
Further Advice				

Meenecked by LTD.

Bravo Sponge Iron Sty LTD.

Mahuda, P. Order L. Officen V.B.

#### atient Record

### LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist: Purulia, Pin: 723155

Ph. No.: 8335045423/8335045424, Email id: lef.nanritam@gmail.com

No.	55
DATE	29/06/23
MR NO	C

OKESWARANANDA

VENUE	BSIPL
GP	

BLOCK DISTRICT

Name: Gaya	Dal		C/o:				F	Relation
				14	М	ala C	Female	П
Address:				-+-		are E	Temale	Ц
District :		1	Contact I	No. :				
AADHAR :			Category	:	s c	ST	ОВС	OTHERS
C/o DOV(	Nea		(E)	1110	IADTU	DITIC	OTI	HERS
Medical History with duration	HTN	DM	BR. ASTHMA	INU	AKIN	KIIIS	017	IERS
Family History								
H/O Allergy								
PGP	RE	1	4	LE		./.		
VA		4/60	ND		+	16 g	NA	v = -
TLE SLE	1	0			2	0		<b>&gt;</b>
LIDS			9			4		1
CONJUNCTIVA					٥			
CORNEA								
SCLERA			1 N					
ANT. CHAMBER		2000	х.					
IRIS		7	it .					
PUPIL			N:	PA	IR_			
LENS								
OCULAR MOVEMENT				1_				
IOP				1				
NLP				1				

# কি কি পরিষেবা দেওয়া হয় ?

- ছানি অপারেশন আই.ও.এল., ফেকো
- গ্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন। 9. 8.

যে কোন প্রকার তথ্যের জন্য আমাদের হেপ্পশাইন নশ্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

# **HEALTH CARD OF EMPLOYEE**

0010103
Registration No Date: 2816128.
Name Irshad. Ansay. Father/Husband Sumorali Ansary.
Department Automobail Age 58. Sex M Blood Group A+
Relevant Personal History
Relevant Family History
Prelisting Disease if any
Physical Examination:
Weight $67$
General Health
Anemia
Jaundice
Pulse9
Blood Pressure 125 88  BF RH Factor Hb-127, ESR-15, TC-8500, NE-65, Ly 25, MO-05 E0-3 BA-02
RH Factor Hb-12/, ESR-15, TC-8500, NE-65, Ly 25, MO-05 E0-3 BA-02
Chest ECG- Normal.
CNS
Eye/Ear Eye VA 4R C/6 No., Both ear hearing Sensivity. Normal.
Investigation (if any)
Further Advice

Medical Pofficer S. Mahuda, P.O. Rivol Se Pofficer S. Mahuda, P.O. Rivol Se Pofficer S. S.

#### C Patient Record

(0

LOKESWARANANDA

#### LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

Barandanga, Para, Dist : Purulia, Pin : 723155

BLOCK

DISTRICT

Ph. No.: 8335045423/ 8335045424. Email id: lef.nanritam@gmail.com

			1 11. 110 00000 15 1201 000	
SI.No.	160	VENUE	RSIDI	
DATE	28/06/23	3	DOFFL	—
MR NO	C	GP		

Name: Inshad Ansari Clo:

Address:

Age: 58 | Male Female |

Contact No.:

AADHAR :	Catego	ry:	SC	ST	ОВС	OTHERS
CIO DAV(BIE).						
PH ( )						
Medical History HTN I	DM BR. ASTHM	A IHD	ARTH	RITIS	OTI	HERS
Family History						
H/O Allergy						
PGP RE	1	LE				
VA (Tglon) E	6, N6		R	6.1	)6	7.00
TLE 1		Ì	لر		~	. 1
SLE V	M		//	10	11	
						<b>&gt;</b>
LIDS						
CONJUNCTIVA						
CORNEA	)]					
SCLERA		-				
ANT. CHAMBER		_				
IRIS		+				
PUPIL	Λ'	12(	1/2			
LENS		4-	<u> </u>	-		
OCULAR MOVEMENT						
IOP						
NLP						

### কি কি পরিষেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেমসিভ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পশাইন নম্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

### **HEALTH CARD OF EMPLOYEE**

Date:	28/6/23
Registration No.	
Name Raj Ku. Sarana. Father/Husband Shir S	arma.
Department <u>Pellet Mech Age 33.</u> Sex M Blood	Group 0+
Relevant Personal History	
Relevant Family History	
Prelisting Disease if any	
Physical Examination:	
Weight 35	
General Health	
Anemia	
Pulse	
Jaundice	E0-3, BA-01
RH Factor 10 March 1:	
ChestEQQ - Normul.	
CNS	onity Worant
Eye/Ear Eye L/A- 6/6 No, Both ear hearing Sen.	Sirily 22
Investigation (if any)	1
Further Advice	

Medical Cofficer by

Bravo Sporged 1291 Office P.

Mahuda, P.O. Rukni Dist Purusa (W.B.)

# atient Record LOKESWA

# LOKESWARANANDA EYE FOUNDATION

(A Project of NANRITAM)

	Barandanga, Para, Dist : Purulia, Pin : 723155
	Barandanga, role, but the ansitom formail com
07	No : 8335045423/ 8335045424, Email id : lef.nanritam@gmail.com

/	OKESWARANANDA		Ph. No. : 8335045423/ 83350	RI OCK
No.	25/2/25	VENUE	BSIPL	DISTRICT
MR NO	C 8/06/2	GP		DIOTRICAL

Name: Rajkumar Sharn	Clo:			F	Relation
Address:	Age: 33	M	ale 🖸	Female	
District :	Contact No. :				
AADHAR :	Category :	s C	ST	OBC	OTHERS

C/o						
PH						
Medical History with duration	HTN	DM	BR. ASTHMA	IHD	ARTHRITIS	OTHERS
Family History						
H/O Allergy						
PGP	RE		^ 1	LE		17
VA		*	$\supset$ ( $o$	Ln		Yo M
TLE SLE	<	0		ì		
LIDS			Я			
CONJUNCTIVA						
CORNEA						
SCLERA						
ANT. CHAMBER						
IRIS						
PUPIL						
LENS						
OCULAR MOVEMENT						
IOP						
NII D						

# কি কি পরিষেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এল., ফেকো
- ২ প্লকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডায়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- 8. চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

যে কোন প্রকার তথ্যের জন্য আমাদের হেল্পলাইন নশ্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুন।



Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)

# **HEALTH CARD OF EMPLOYEE**

HEALTH CARD OF LIVIL 20
Registration No.
Name Biffu Ravidas Father/Husband Late Hira Ravidas
Name Biffle Rayidas Father/Husband Late Tilla Rayidas At nacifive
Department <u>fellet RMHS</u> Age <u>29 785</u> Sex <u>Male</u> Blood Group At positive
Relevant Personal History
Relevant Family HistoryNO
Prelisting Disease if anyNO
Physical Examination:
Weight 63Kg15
General Health $Good$
Anemia
JaundiceNO
Pulse
Blood Pressure 126/80  Blood For Hb-12.3, ESR-10, +e-6400, NE-62, LY-36, E0-02, MO-00, BA-0.
Chest_Eeg-Normal
Eye/Ear_EYE-VAIRE-6/6, N6, Bolk Earheaving, Sensitivity-Hormal
Investigation (if any)
Further Advice

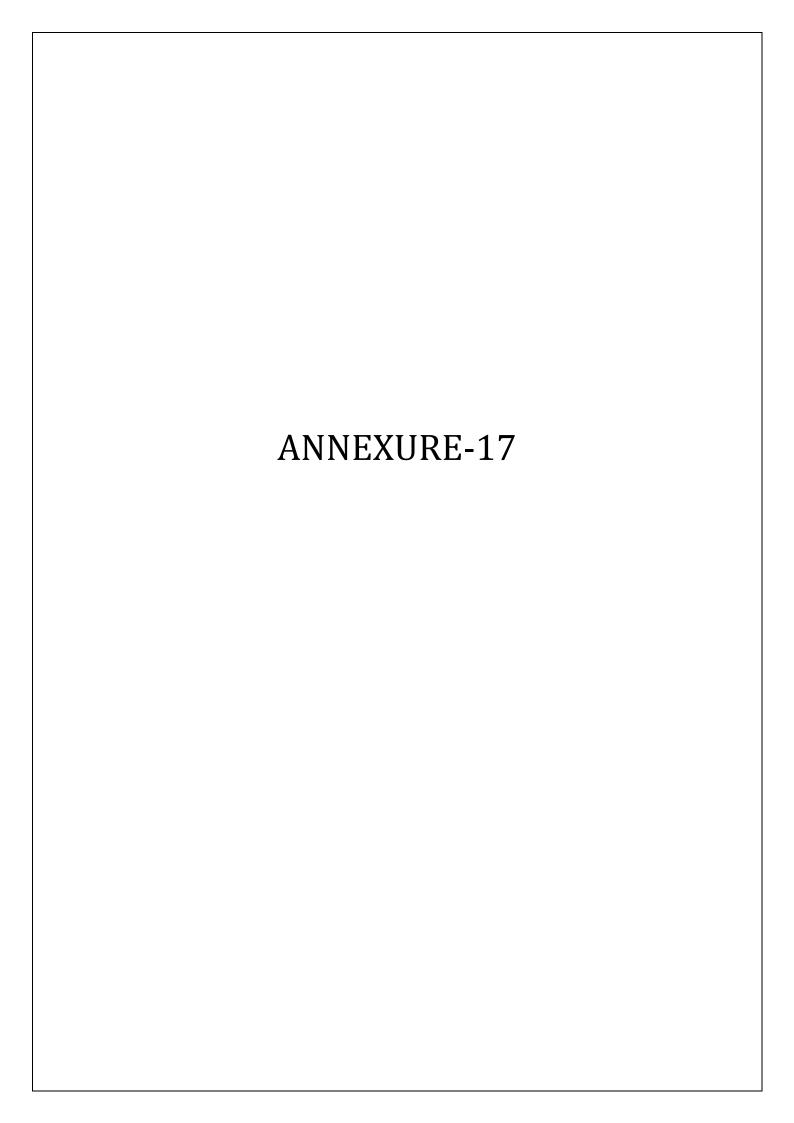
Medical Ochecked by Bravo Sponge IMedical Officer
Mahuse, P.O. Ruknichs Surulis AV.B.)

#### LOKESWARANANDA EYE FOUNDATION tient Record (A Project of NANRITAM) Barandanga, Para, Dist: Purulia, Pin: 723155 Ph. No.: 8335045423/8335045424, Email id: lef nanritam@gmail.com BLOCK VENUE 06/23 DISTRICT GP MR NO Relation Name: Bitty Roudal C/o: Male Female Age: 29 Address : Contact No. : District: OTHERS ST OBC SC AADHAR : Category: 6 C/o PH BR. ASTHMA IND ARTHRITIS OTHERS Medical History HTN DM with duration Family History H/O Allergy RE LE PGP VA TLE SLE LIDS CONJUNCTIVA CORNEA SCLERA ANT. CHAMBER IRIS NSNR PUPIL LENS OCULAR MOVEMENT IOP NLP

#### কি কি পরিষেবা দেওয়া হয় ?

- ১. ছানি অপারেশন আই.ও.এশ., ফেকো
- ২ প্রকোমা রোগ নির্ণয়, চিকিৎসা ও অপারেশন
- ৩. চোখের পর্দা (রেটিনা) রোগ নির্ণয় (ডা্য়াবেটিক ও হাইপারটেনসিভ্ রেটিনোপ্যাথি) চিকিৎসা ও অপারেশন
- চোখের মধ্যে রক্তক্ষরণ ও পর্দা সরে যাওয়ার (রেটিনাল ডিটাচ্মেন্ট) অপারেশন।

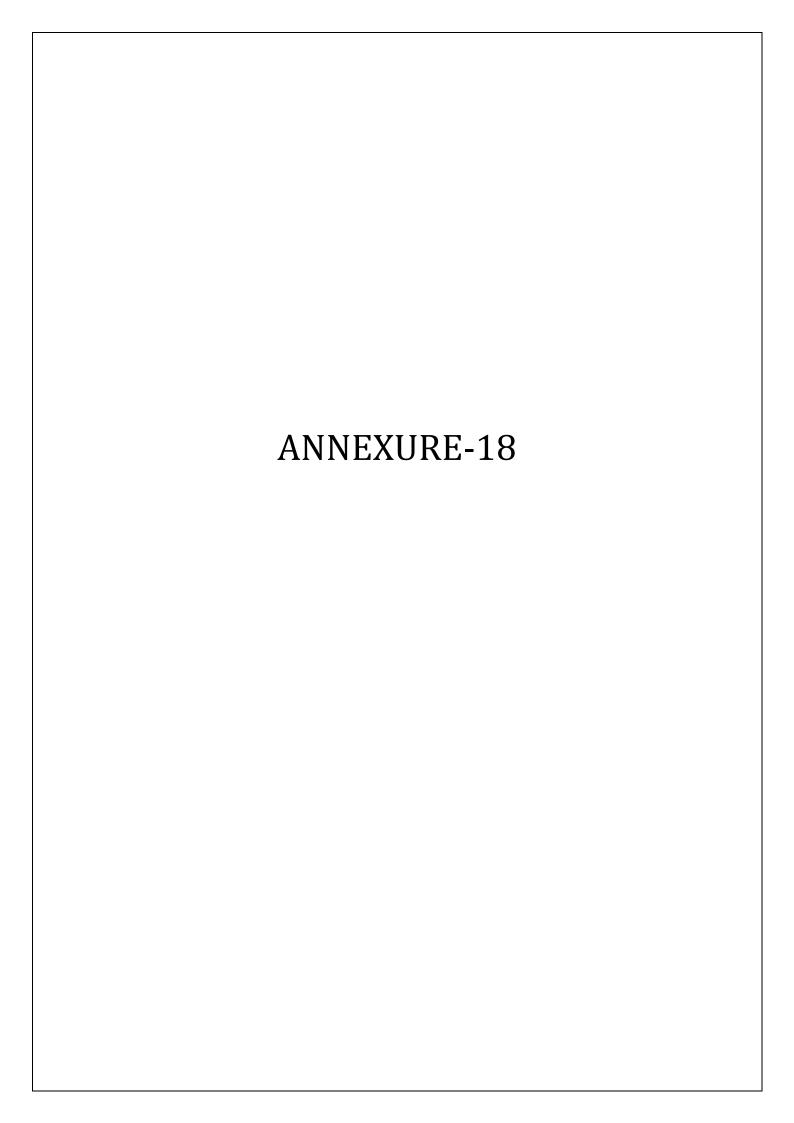
যে কোন প্রকার তথ্যের জন্য আমাদের হেললাইন নম্বর - ৭৬০২১৩১০১০ এবং ৮৩৩৫০৪৫৪২৩ তে ফোন করুল।



# SHARAD BHAKTIVEDANTA PUBLIC SCHOOL (PRIMARY EDUCATION)



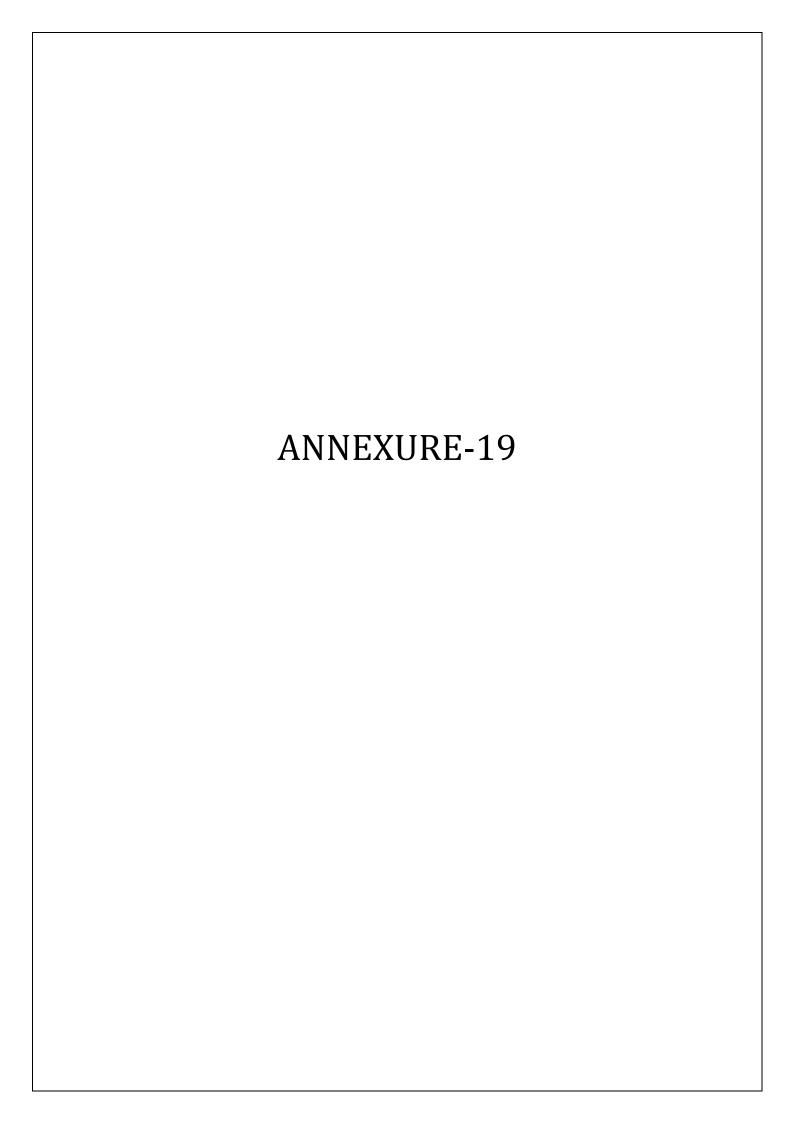




# SKILL DEVELOPMENT CENTER FOR WOMEN EMPOWERMENT AT VILLAGE KASHBERIA







11/7/2020



(http://www.technoglobalhospital.com)



(http://www.eaajkaal.in)



(http://www.technoglobalhospital.com)

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#### ফর্ম নং- আইএনসি-২৫এ

পাবলিক কোম্পানি থেকে প্রাইভেট কোম্পানিতে পরিবর্তন উপলক্ষে সংবাদপত্রে বিজ্ঞাপন প্রকাশ রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, কর্পোরেট বিষয়ক মন্ত্ৰক, কলকাতা সমীপে

কোম্পানি আইন, ২০১৩, কোম্পানি আইন ২০১৩-এর ১৪ ধারা

কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪–এর রুল ৪১ অনুসারে, বিষয়: মেসার্স দি ইভাস্ট্রিয়াল গ্যাসেস লিমিটেড, রেজিস্টার্ড অফিস: ১৫, গণেশচন্দ্র অ্যাভিনিউ, কলকাতা- ৭০০ ০১৩

#### ... আবেদনকারী

এতদ্ধারা জনসাধারণের প্রতি বিজ্ঞপ্তি জারি করা হচ্ছে যে, পাবলিক কোম্পানি থেকে প্রাইভেট কোম্পানিতে বদলের উদ্দেশ্যে ৩ নভেম্বর, ২০২০ তারিখে বিশেষ সাধারণ সভায় গৃহীত বিশেষ প্রস্তাব অনুযায়ী কোম্পানির সংযশ্মারকের রদবদলের অনুমোদন প্রার্থনা করে কোম্পানিজ আক্ট ২০১৩–এর ১৪ ধারা অনুসারে কেন্দ্রীয় সরকার-এর কাছে সংশ্লিষ্ট কোম্পানি একটি আবেদন করার প্রস্তাব করেছে।

কোম্পানির রেজিস্টার্ড অফিসের প্রস্তাবিত স্থাটাস পরিবর্তনের ফলে স্বার্থ ক্ষন্ত হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশের তারিখ থেকে চোন্দো দিনের মধ্যে রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, ২৩৪, এ জে সি বোস রোড, নিজাম প্যালেস, 🛭 এমএস ও বিশ্ডিং, ৪র্থ তল, কলকাতা-৭০০০২০-এর কাছে তাঁর/তাঁদের (স্ত্রী/পং) স্বার্থের ধরন এবং বিরোধিতার কারণ উল্লেখ করে একটি হলফনামা দ্বারা সমর্থিত আপত্তিসমূহ রেজিস্টার্ড ডাকযোগে পাঠাতে পারেন, তৎসহ নিচে বর্ণিত ঠিকানাতে অবস্থিত অফিসে, আবেদনকারী কোম্পানির কাছেও একটি কপি পাঠাতে পারেন।

আবেদনকারী: দি ইন্ডাস্ট্রিয়াল গ্যাসেস লিমিটেডের

স্বাঃ তেজেন্দ্র গর্গ ডিরেক্টর

তারিখ: ০৬.১১,২০২০ DIN: 01417829 স্থান: কলকাতা রেজিস্টার্ড অফিসের সম্পূর্ণ ঠিকানা:

১৫, গণেশচন্দ্র অ্যাভিনিউ, কলকাতা- ৭০০ ০১৩

#### প্রকাশ্য বিজ্ঞপ্তি

এতদ্বারা এই নোটিস জারি করা হচ্ছে যে, পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে রেজিস্টার্ড অফিস স্থানান্তর নিশ্চিতকরণের জন্য লিঙ্কলাইন ট্রেডলিঙ্ক এলএলপি দ্বারা রেজিস্ট্রারের অফিসে লিমিটেড লায়াবিলিটি পার্টনারশিপ আক্টি. ২০০৮-এর ১৩ নং ধারাধীনে একটি নোটিস পাঠানো হবে।

রেজিস্টার্ড অফিস পশ্চিমবন্ধ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে স্থানান্তরের উক্ত প্রস্তাবে কারও স্বার্থ ক্ষুর হওয়ার সম্ভাবনা থাকলে যে কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার তারিখ থেকে ২১ দিনের মধ্যে তাঁর (পুং/ স্ত্রী) স্বার্থের ধরন ও বিরোধিতার কারণ উল্লেখ করে রেজিস্ট্রারের কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই লিম্বলাইন টেডলিম্ব এলএলপি-এর নিম্নলিখিত রেজিস্টার্ড অফিসের ঠিকানায় পেশ করতে হবে:

রেজিস্টার্ড অফিসের ঠিকানা: ৩এ, আর কে চ্যাটার্জি রোড, কলকাতা-৭০০০৪২।

লিঙ্কলাইন ট্রেডলিঙ্ক এলএলপি-এর তরফে স্বাঃ- বিজ্ঞাল মোদি (বডি কর্পোরেট তারিখ: ০৬.১১.২০২০ ডিপি নমিনি)

স্থান: কলকাতা

ডিআইএন: 08413323

#### প্রকাশ্য বিজ্ঞপ্তি

এতদ্বারা এই নোটিস জারি করা হচ্ছে যে, পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে রেজিস্টার্ড অফিস স্থানান্তর নিশ্চিতকরণের জন্য গ্র্যামার শপার্স এলএলপি দ্বারা রেজিস্ট্রারের অফিসে লিমিটেড লায়াবিলিটি পার্টনারশিপ আর্ক্ট, ২০০৮-এর ১৩ নং ধারাধীনে একটি নোটিস পাঠানো হবে।

রেজিস্টার্ভ অফিস পশ্চিমবন্ধ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে স্থানান্তরের উক্ত প্রস্তাবে কারও স্বার্থ কর হওয়ার সম্ভাবনা থাকলে যে কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার তারিখ থেকে ২১ দিনের মধ্যে তাঁর (পুং/ স্ত্রী) স্বার্থের ধরন ও বিরোধিতার কারণ উল্লেখ করে রেঞ্জিস্ট্রারের কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই গ্ল্যামার

#### সংশোধনী

পত্রিকায ভলক্রমে ০৬.১১.২০২০ তারিখে ঋষি ট্রেডিং লিমিটেড কোম্পানি (CIN: U01409WB1980PTC195437)-এর বিজ্ঞাপন কনসোলিডেটেড ফটো অ্যান্ড ফিনভেস্ট লিমিটেড (CIN: U65993DL1996PLC081586)-এর নামে প্রকাশিত হয়েছিল। দয়া করে বিজ্ঞাপনের নাম **কনসোলিডেটেড ফটো** আভ ফিনভেস্ট লিঃ-এর স্থানে ঋষি **ট্রেডিং কোম্পানি লিমিটেড প**ড়তে হবে। অসবিধার জন্য দঃখিত।

#### 🤬 বিএমডব্লু ইভাস্ট্রিজ লিমিটেড

রেজিস্টার্ড অফিস: ১১৯, পার্ক স্ট্রিট, হোয়াইট হাউস, ৪র্থ তল, কলকাতা- ৭০০ ০১৬ টেলি: ০৩৩-৪০০৭১৭০৪, ০৩৩২২২৬৮৮৮২ ইমেল: info@bmwil.co.in Website; www.bmwil.co.in CIN: L51109WB1981PLC034212

#### বিজ্ঞপ্তি

সিকিউরিটিজ অ্যান্ড এক্সচেঞ্জ বোর্ড অফ ইন্ডিয়া (লিস্টিং অবলিগেশনস আভ ডিসক্লোজার রিক্যয়ারমেন্টস) রেগুলেশনস ২০১৫ ('লিস্টিং রেগুলেশনস') রেগুলেশন ২৯ এবং সূচী-৩-এর অংশ ক অনুযায়ী বিজ্ঞপ্তি প্রদান করা হচ্ছে যে, কোম্পানির দ্বিতীয় ত্রৈমাসিক এবং ষাগ্মাসিক সমাপ্ত ৩০শে সেপ্টেম্বর, ২০২০ সময়ের অপরীক্ষিত একক এবং একীকৃত আর্থিক ফলাফল বিবেচনা ও অনুমোদনের জন্য কোম্পানির পরিচালন পর্যদের একটি সভা কোম্পানির রেজিস্টার্ড অফিস: হোয়াইট হাউস, ১১৯, পার্ক স্ট্রিট, ৪র্থ তল, কলকাতা- ৭০০ ০১৬-তে শুক্রবার, ১৩ **নভেম্বর,** ২০২০ তারিখে অনুষ্ঠিত হবে।

বোর্ডের আদেশানুসারে

বিএমডব্লু ইন্ডাস্ট্রিজ লিমিটেডের পক্ষে স্বাঃ বিক্রম কাপুর কোম্পানি সেক্রেটারি

তারিখ: ৬ নভেম্বর, ২০২০ স্থান: কলকাতা

Acs No: A9812

#### NOTICE

My client Banibrata Sanyal died intestate on 23rd July 2016 leaving behind her sister Sovona Chakraborty as his sole legal heir in respect of one residential Flat being No C/4 on the 4th Floor of the Building known as "REVATI" having measurement of 1280 sq. ft. Super built up area more or less within Neelachal Abasan Co-operative Society Ltd situated at premises no 98, Rajdanga Gold Park, Kolkata-700107, Police Station Kasba, within the Kolkata Municipal Corporation, District-South 24 Parganas and the said Sovona Chakraborty died intestate on 10th August 2019 leaving behind her only daughter Mrs Sreeparna Chakraborty (Sengupta) as her sole legal heir. If any person has any claim of any nature in the said property please claim with documents within 15 days from this publication under my address otherwise it shall be deemed to have no claim of any nature the above said property.

Anirban Gope, Advocate 22, R.N.Mukherjee Road, 4th Floor Kolkata-700057

#### বিজ্ঞপ্তি

সকলকে জানানো যাইতেছে যে, আমরা ব্রাভো স্পঞ্জ আয়রন প্রাঃ লিঃ, পরিবেশ বন ও জলবায়ু পরিবর্তন মন্ত্রণালয়,

শপার্স এলএলপি-এর নিম্নলিখিত রেজিস্টার্ড অফিসের ঠিকানায় পেশ করতে হবে:

রেজিস্টার্ড অফিসের ঠিকানা: ৩এ, আর কে চ্যাটার্জি রোড, কলকাতা-৭০০০৪২।

> গ্ল্যামার শপার্স এলএলপি-এর তরফে স্বাঃ- কোভিড মুখার্জি (বডি কর্পোরেট ডিপি নমিনি) ডিআইএন: 03570652

তারিখ: ০৬.১১.২০২০ স্থান: কলকাতা

#### প্রকাশ্য বিজ্ঞপ্তি

এতদ্বারা এই নোটিস জারি করা হচ্ছে যে, পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে রেজিস্টার্ড অফিস স্থানান্তর নিশ্চিতকরণের জন্য গোল্ডস্মিথ শপার্স এলএলপি দ্বারা রেজিস্টারের অফিসে লিমিটেড लाग्नाविलिটि পার্টনারশিপ আক্টি, ২০০৮-এর ১৩ নং ধারাধীনে একটি নোটিস পাঠানো হবে।

রেজিস্টার্ড অফিস পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে স্থানান্তরের উক্ত প্রস্তাবে কারও স্বার্থ কুগ্ন হওয়ার সম্ভাবনা থাকলে যে কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার তারিখ থেকে ২১ দিনের মধ্যে তাঁর (পুং/ স্ত্রী) স্বার্থের ধরন ও বিরোধিতার কারণ উল্লেখ করে রেজিস্ট্রারের কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই গোল্ডস্মিথ শপার্স এলএলপি-এর নিম্নলিখিত রেজিস্টার্ড অফিসের ঠিকানায় পেশ করতে হবে:

রেজিস্টার্ড অফিসের ঠিকানা: ৩এ, আর কে চ্যাটার্জি রোড, কলকাতা-৭০০০৪২।

গোল্ডস্মিথ শপার্স এলএলপি-এর তরফে স্বাঃ- পবন কুমার অনছলিয়া (বডি কর্পোরেট তারিখ: ০৬.১১.২০২০ ডিপি নমিনি)

স্থান: কলকাতা

#### প্রকাশ্য বিজ্ঞপ্তি |লিমিটেড লাইবেলিটি পার্টনারশিপ রুলস ২০১৭, রুল ১৭ (৪) অনুযায়ী]

ডিআইএন: 02912037

এলএলপি-এর রেজিস্টার্ড অফিস এক রাজ্য থেকে অন্য রাজ্যে স্থানান্তরের উদ্দেশ্যে সংবাদপত্তে বিজ্ঞাপন প্রকাশ

সম্পর্কিত: ওয়ান্ডারফুল ডিলার এলএলপি (LL-PIN:AAT-8257) যার রেজিস্টার্ড অফিস প্রয়ম্মে বেদপ্রকাশ কান্দোই, ঘর নং ৫৫, ভূপেন্দ্র বোস আভিনিউ, ফ্লাট ২ বি, ৩য় তল, কলকাতা-৭০০ ০০৪ জনসাধারণকে এতদ্ধারা বিজ্ঞপ্তি প্রদান করা হচ্ছে যে, এল এল পি লিমিটেড লাইবেলিটি পার্টনারশিপ আক্ট ২০০৮ সেকশন ১৩ (৩) অনুযায়ী তাদের রেজিস্টার্ড অফিস 'পশ্চিমবন্ধ রাজ্য' থেকে 'আসাম রাজ্যে' স্থানান্তরের জন্য রেজিস্ট্রার-এর কাছে একটি আবেদন জমা করবার প্রস্তাব করেছেন।

এলএলপি-এর প্রস্তাবিত পরিবর্তনের ফলে স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশিত হওয়ার ২১ (একুশ) দিনের মধ্যে রেজিস্ট্রার অফ কোম্পানিজ, নিজাম প্যালেস, ২য় এম এস ও বিল্ডিং, ৩য় তল, ২৩৪/৪, এ জে সি বোস রোড, কলকাতা-৭০০ ০২০-এর কাছে তাদের স্বার্থের ধরন এবং বিরোধিতা উল্লেখ করে হলফনামা সহ সমর্থিত আপত্তিসমূহ পাঠাতে পারেন তৎসহ নীচে বর্ণিত ঠিকানাতে এলএলপি-এর অফিসে পাঠাতে পারেন।

#### ওয়াভারফুল ডিলার এলএলপি

প্রয়ত্নে বেদপ্রকাশ কান্দোই, ঘর নং ৫৫ ভূপেন্দ্র বোস অ্যাভিনিউ, ফ্ল্যাট ২ বি, ৩য় তল,

কলকাতা-৭০০ ০০৪

ওয়াভারফুল ডিলার এল এল পি-এর পক্ষে

প্রদীপকুমার আগরওয়াল তারিখ: ০৬.১১.২০২০ মনোনীত অংশীদার স্থান: কলকাতা DPIN: 01461392

#### প্রকাশ্য বিজ্ঞপ্তি [লিমিটেড লাইবেলিটি পার্টনারশিপ রুলস ২০১৭, রুল ১৭ (৪) অনুযায়ী

এলএলপি-এর রেজিস্টার্ড অফিস এক রাজ্য থেকে অন্য রাজ্যে স্থানান্তরের উদ্দেশ্যে সংবাদপত্রে বিজ্ঞাপন প্রকাশ সম্পর্কিত: নাইটেঙ্গল ভিনকম এলএলপি

(LLPIN:AAT-8267) যার রেজিস্টার্ড অফিস প্রয়ত্তে বেদপ্রকাশ কান্দোই, ঘর নং ৫৫, ভূপেন্দ্র বোস আভিনিউ, ফ্ল্যাট ২বি, ৩য় তল, কলকাতা-৭০০ ০০৪ জনসাধারণকে এতদ্বারা বিজ্ঞপ্তি প্রদান করা হচ্ছে যে. এল এল পি লিমিটেড লাইবেলিটি পার্টনারশিপ অ্যাক্ট ২০০৮ সেকশন ১৩ (৩) অনুযায়ী তাদের রেজিস্টার্ড অফিস 'পশ্চিমবঙ্গ রাজ্য' থেকে 'আসাম রাজ্যে 'স্থানান্তরের জন্য রেজিস্ট্রার-এর কাছে একটি আবেদন জমা করবার প্রস্তাব করেছেন।

এলএলপি-এর প্রস্তাবিত পরিবর্তনের ফলে স্বার্থ ক্ষম হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশিত হওয়ার ২১ (একুশ) দিনের মধ্যে রেজিস্ট্রার অফ কোম্পানিজ নিজাম প্যালেস, ২য় এম এস ও বিল্ডিং, ৩য় তল, ২৩৪/৪, এ জে সি বোস রোড, কলকাতা-৭০০ ০২০-এর কাছে তাদের স্বার্থের ধরন এবং বিরোধিতা উল্লেখ করে হলফনামা সহ সমর্থিত আপত্তিসমূহ পাঠাতে পারেন তৎসহ নীচে বর্ণিত ঠিকানাতে এলএলপি-এর অফিসে পাঠাতে পারেন। बाह्यराज्य जिन्नका अन्यक्रि

ভারত সরকার হইতে পঃ বঃ রাজ্যের পুরুলিয়া জেলার গ্রাম-মহদা, পোঃ রুকনি, সম্প্রসারণ করিয়া বাৎসরিক পেলেট প্লান্ট মারফত গ্রাইনডিং ফেসিলিটি সহযোগে (২ x ০.৮৫ MTPA), স্পঞ্জ আয়রন প্লান্ট (১ x ৩৫০ TPD ক্লিন), ইভাক্সনু ফারনেসের (৩ x ২৫ টি), ক্যাপাসিটি রিভিশন অনুমোদিত ৬০০ TPD হইতে ১০০০ TPD রোলিং মিল সঙ্গে ৭ MW ক্ষমতা সম্পন্ন ক্যাপটিভ পাওয়ার প্লান্ট (WHRB ভিত্তিক ইউটিলাইজিং ওয়েস্ট হিট হইতে প্রস্তাবিত স্পঞ্জ প্লান্ট) এবং প্রোডিউসার গ্যাস প্লান্ট (১২ x ৪০০০ Nm3/hr) উৎপাদন প্লান্ট স্থাপনে অনুমতি পাইয়াছি, মেমো নং. F. No. J-11011/758 / 2009-IA.II(I) তাং ০৫.১১.২০২০ আমরা সকলের সহযোগিতা কামনা করিতেছি।

ব্রাভো স্পঞ্জ আয়রন প্রাঃ লিঃ Sd/-

ফৰ্ম নং– আই এন সি–২৬

কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪-এর রুল ৩০ অনুযায়ী

এক রাজ্য থেকে অন্য রাজ্যে কোম্পানির রেজিস্টার্ড অফিস পরিবর্তন উপলক্ষে সংবাদপত্রে বিজ্ঞাপন প্রকাশ

রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, কলকাতা সমীপে কোম্পানি আইন, ২০১৩-এর ১৩ ধারার (৪) উপধারা অনুসারে এবং কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪-এর রুল ৩০-এর সাব-রুল (৫) উপধারার রুজ (এ) অনুসারে

এবং

নিম্নোক্ত সম্পর্কে: ইমেজ ক্রিয়েশন শাড়িস প্রাইভেট লিমিটেড ( CIN: U17122WB2008PTC123209), রেজিস্টার্ড অফিস: ৪/১/১বি, হরপ্রসাদ দে লেন, ২য় তল, ঢাকা পট্টির নিকটে, কলকাতা– ৭০০ ০০৭, পশ্চিমবঙ্গ

এতন্দারা জনসাধারণের প্রতি বিজ্ঞপ্তি জারি করা হচ্ছে যে, 'পশ্চিমবন্ধ রাজ্য' থেকে 'গুজরাট রাজ্যে' রেজিস্টার্ড অফিস স্থানান্তরের উদ্দেশ্যে ৬ অক্টোবর, ২০২০ তারিখে অনুষ্ঠিত বিশেষ সাধারণ সভায় গৃহীত বিশেষ প্রস্তাব অনুযায়ী কোম্পানির সঙ্গ্রস্মারকের রদবদলের অনুমোদন প্রার্থনা করে কোম্পানিজ আক্টি, ২০১৩–এর ১৩ ধারা অনুসারে কেন্দ্রীয় সরকার-এর কাছে সংশ্লিষ্ট কোম্পানি একটি আবেদন করার

কোম্পানির রেজিস্টার্ড অফিসের প্রস্তাবিত পরিবর্তনের ফলে স্বার্থ ক্ষুদ্র হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশের তারিখ থেকে ১৪ (চোন্দো) দিনের মধ্যে এমসিএ-২১ পোর্টাল (www.mca.gov.in)-এ ইনভেস্টর কমপ্লেইন ফর্ম পুরণ করে অথবা রেজিস্টার্ড ডাকযোগে রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, ২৩৪/৪, আচার্য জগদীশ চন্দ্র বোস রোড, নিজাম প্যালেস, 🛭 এম এস ও বিল্ডিং, ৪র্থ তল, কলকাতা-৭০০ ০২০-এর কাছে তাঁর/তাঁদের (স্ত্রী/পুং) স্বার্থের ধরন এবং বিরোধিতার কারণ উল্লেখ করে একটি হলফনামা দ্বারা সমর্থিত আপত্তিসমূহ পাঠাতে পারেন, তৎসহ ওপরে বর্ণিত ঠিকানাতে অবস্থিত অফিসে, আবেদনকারী কোম্পানির কাছেও একটি কপি পাঠাতে পারেন। যার ঠিকানা- রেজিস্টার্ড অফিস- ৪/১/২বি, হরপ্রসাদ দে লেন, ২য় তল, ঢাকা পট্টির নিকটে, কলকাতা- ৭০০ ০০৭, পশ্চিমবঙ্গ আবেদনকারী

ইমেজ ক্রিয়েশন শাড়িস প্রাইভেট লিমিটেড–এর পক্ষে স্বাঃ মনোজ কুমার জৈন

তারিখ: ০৭,১১,২০২০ স্থান: কলকাতা

ভিরেইর DIN: 01834584

ফর্ম নং- আইএনসি-২৫এ

কেন্দ্রীয় সরকার, রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, কর্পোরেট বিষয়ক মন্ত্রক, কলকাতা সমীপে কোম্পানি আইন, ২০১৩, কোম্পানি আইন ২০১৩-এর ১৪ ধারা এবং

কোম্পানিজ (ইনকপোরেশন) রুলস, ২০১৪-এর রুল ৪১ অনসারে

বিষয়: নটরাজ টেকনোসফট লিমিটেড, রেজিস্টার্ড অফিস: ৫ এফ, এভারেস্ট, ৪৬/সি, চৌরঙ্গি রোড, কলকাতা- ৭০০ ০৭১, পশ্চিমবঙ্গ

... আবেদনকারী

এতদ্দারা জনসাধারণের প্রতি বিজ্ঞপ্তি জারি করা হচ্ছে যে, পাবলিক কোম্পানি থেকে প্রাইভেট কোম্পানিতে বদলের উদ্দেশ্যে ৩০ অক্টোবর, ২০২০ তারিখে বিশেষ সাধারণ সভায় গৃহীত বিশেষ প্রস্তাব অনুযায়ী কোম্পানির সংখ্যারকের রদবদলের অনুমোদন প্রার্থনা করে কোম্পানিজ অ্যাক্ট ২০১৩-এর ১৪ ধারা অনুসারে কেন্দ্রীয় সরকার-এর কাছে সংশ্লিষ্ট কোম্পানি একটি আবেদন করার প্রস্তাব করেছে।

কোম্পানির রেজিস্টার্ড অফিসের প্রস্তাবিত স্ট্যাটাস পরিবর্তনের ফলে স্বার্থ ক্ষুপ্ত হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশের তারিখ থেকে চোন্দো দিনের মধ্যে রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, ২৩৪, এ জে সি বোস রোড, নিজাম প্যালেস, II এমএস ও বিল্ডিং, ৪র্থ তল, কলকাতা-৭০০০২০-এর কাছে তাঁর/তাঁদের (স্ত্রী/পং) স্বার্থের ধরন এবং বিরোধিতার কারণ উল্লেখ করে একটি হলফনামা দ্বারা সমর্থিত আপত্তিসমূহ রেজিস্টার্ড ডাকযোগে পাঠাতে পারেন, তৎসহ নিচে বর্ণিত ঠিকানাতে অবস্থিত অফিসে, আবেদনকারী কোম্পানির কাছেও একটি কপি পাঠাতে স্থান: কলকাতা

প্রযন্তে বেদপ্রকাশ কান্দোই, ঘর নং ৫৫ ভূপেন্দ্র বোস আভিনিউ, ফ্লাট ২বি, ৩য় তল, কলকাতা–৭০০ ০০৪ নাইটেঙ্গল ভিনকম এল এল পি–এর পক্ষে স্বাঃ/ ইশান্ত আগরওয়াল তারিখ: ০৬.১১.২০২০ মনোনীত অংশীদার

DPIN: 03482066

পারেন।
রেজিস্টার্ড অফিসের ঠিকানা: ৫ এফ, এভারেস্ট, ৪৬/সি,
টৌরঙ্গি রোড, কলকাতা – ৭০০ ০৭১, পশ্চিমবঙ্গ
আবেদনকারী: নটরাজ টেকনোসফট লিমিটেড–এর
পক্ষে
স্বাঃ অনিল কুমার আগরওয়াল
তারিখ: ০৭.১১.২০২০ ম্যানেজিং ডিরেক্টর
স্থান: কলকাতা DIN: 00479628

# Open A Zero Bal Account Online বিজ্ঞাপন Kotak 811

**Blazing Fast VPN** 

বিজ্ঞাপন NordVPN

<u>(i)</u>

#### **Online Cake Delivery**

বিজ্ঞাপন Winni

**FINANCIAL EXPRESS** 

#### NOTICE

We, Bravo Sponge Iron Pvt. Ltd. would like to inform everyone that we have obtained permission (EC) for setting up proposed expansion of the Steel Plant by installation of Pellet Plant with Grinding Facility (2x0.85 MTPA), Sponge Iron Plant (1x350 TPD Kiln), Induction Furnaces (3x25T), Capacity revision from approved 600 TPD to 1000 TPD Rolling Mill along with 7 MW capacity Captive Power Plant (WHRB based, utilized waste heat from the proposed sponge plant) and Producer Gas Plant (12x4000 Nm3/hr) located at Vill.: Mahuda, P.O.: Rukni, Dist.: Purulia, W.B. from Ministry of Environment, Forest & Climate Change (I.A. Division), Govt. of India vide Memo No. F. No. J. 11011/758 / 2009-IA.II(I) dated: 05.11.2020.

For Bravo Sponge Iron Pvt. Ltd.



Pursuant to Regulations 47 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, notice is hereby given that a meeting of Board of Directors of the Company is scheduled to be held on Friday, the 13th day of November, 2020 to consider, approve and take on record the un-audited Financial Results for the Quarter & Half Year ended on 30th September, 2020.

The said notice is also available on the website of the company i.e. www.psllimited.com and website of the stock exchanges i.e. www.bseindia.com and www.nseindia.com For PSL LIMITED

**NITIN JAIN** 

LIQUIDATOR

Place: NEW DELHI Date: 06 Nov. 2020

**DYNAMIC MICROSTEPPERS LIMITED** Read, Office: 506, Mattery Arcada, Above Aris Bank, Near Garword

Albhach Road We Parle (East), Mumbal - 400 057.

Tel Ma.: 022-26842631 | Faq No.: 022-26843782 Website: www.dynamicmicrostoppers.com Email: id : dynamicmicrosteppersämited@gmail.com NOTICE Pursuant to Regulation 47 read with Regulation 29 of the SEBI (Listing may be amended from time to time). Notice is hereby given that the

Menting of the Board of Directors of the Company is scheduled to be

held on friday: 13" November, 2020 inter alia to consider, approve and take on record the un-audited Financial Results of the Company for quarter and half year ended on September, 30, 2020. Further, in terms of the Company's Code of Conduct and SESI Prohibition of Insider Tradings Regulations, 2015, the trading window for dealing in securities of the Company by its designated persons, Soard Meeting convened for considering and approving Un-audited Ritancial results for the quarter and half year ended Segtember 30,

This Intimation is also available on the website of the company a www.dynamicrnicrosteppers.com and on the website of the Stock Exchange where the shares of the Company are listed at

For Dynamic Microsteppers Limited Place: Mumbai Ashwin Shah Date: 06.11.2020 Director

J. L. Morison (India) Limited CIN: L51109WB1934PLC088167

Regd. Office: 'Rasoi Court' 20, Sir R. N. Mukherjee Road, Kolkata – 700 001. Tel.: (033) 2248 0114/5, E-mail: investors@jlmorison.com , Website: www.jlmorison.com/corporate

REMOTE E -VOTING INFORMATION AND BOOK CLOSURE Pursuant to the provisions of Section 108 of the Companies Act, 2013 and Rule 20 of the Companies (Management and Administration) Rules, 2014, notice is hereby given that:

NOTICE OF 85<sup>TH</sup> ANNUAL GENERAL MEETING,

1. The 85<sup>th</sup> Annual General Meeting ('AGM') of the Company will be held on Monday the 30<sup>th</sup> November, 2020 at 11.45 a.m. at Club Ecovista, Ecospace Business Park Plot No. IIF/11, Action area II, Rajarhat, Newtown, Kolkata - 700160 to transact the business as set out in the Notice of AGM dated 3<sup>rd</sup> November, 2020.

2. The Notice of AGM along with Annual Report for the year ended 31<sup>st</sup> March, 2020 have been sent to all the members at their registered address through courier/post and e-mailed at their registered e-mail ids on 5<sup>th</sup> November, 2020.

Members holding shares either in physical form or dematerialized form, as on the cut-off date i.e. Friday, 20th November, 2020 may cast their vote electronically on the Ordinary and Special businesses as set out in the Notice of the 85th AGM through electronic voting system of National Securities Depository Limited (NSDL) from a place other than venue of AGM ("remote E-Voting"). **4.** All the members are informed that:

I. The Ordinary and the Special businesses set out in the Notice of 85th AGM may be transacted through voting by electronic means, i.e. remote e-voting;

The remote e-voting shall commence on Friday, 27<sup>th</sup> November, 2020 at 9.00 a.m.; III. The remote e-voting shall end on Sunday, 29th November, 2020 at 5.00 p.m.;

IV. The cut-off date for determining the eligibility to vote by electronic means or at the AGM is Friday, 20<sup>th</sup> November, 2020; V. Any person, who acquires shares of the Company and becomes member of the Company after dispatch of the Notice of the 85<sup>th</sup> AGM and holding shares as on the

cut-off date i.e. Friday, 20th November, 2020, may obtain the login ID and password by sending a request at evoting@nsdl.co.in or rta@cbmsl.com. However, if a person is already registered with NSDL for e-voting then existing user ID and password can be used for casting vote; VI. Members may note that: a) the remote e-voting module shall be disabled by NSDL after the aforesaid date and time for voting and once the vote on a resolution is cast

by the member, the member shall not be allowed to change it subsequently; b) the facility for voting through ballot papers shall be made available at the AGM; c) the members who have cast their vote by remote e-voting facility may also attend the AGM but shall not be entitled to cast vote again; and d) a person whose name is recorded in the Register of Members and Register of Beneficial Owners as on the cut-off date i.e. Friday, 20<sup>th</sup> November, 2020 only shall be entitled to avail the facility of remote e-voting as well as voting at the AGM through ballot/polling papers;

VII. The notice of the AGM is available on the NSDL's website www.evoting.nsdl.com and on the Company's website www.jlmorison.com/corporate;

VIII. In case of queries, members may refer to the Frequently Asked Questions (FAQs) for members and e-voting user manual for members at the Help Section of www.evoting.nsdl.com or call on helpdesk no: 1800222990 or contact Ms. Pallavi Mhatre Manager at telephone no. 022-24994545 who will also address the grievances connected with the voting by electronic means. Members may also write to the Company at the email ID investors@jlmorison.com or the Registered Office Address as mentioned above.

5. Pursuant to the provisions of Section 91 of the Companies Act, 2013 and Regulation 42 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Register of Members and the Share Transfer books of the Company will remain closed from Saturday, 21<sup>st</sup> November, 2020 to Monday, 30<sup>th</sup> November, 2020 (both days inclusive) for 85<sup>th</sup> Annual General Meeting and determining the entitlement of the shareholders for the dividend for the year ended 31<sup>st</sup> March, 2020.

Place: Mumbai **Date:** 6<sup>th</sup> November, 2020

**Company Secretary & Compliance Officer** 

For J. L. Morison (India) Limited



**TATA STEEL LIMITED**Registered Office: Bombay House, 24, Homi Mody Street, Fort, Mumbai - 400 001, India

Tel.: +91 22 6665 8282 Email: cosec@tatasteel.com Website: www.tatasteel.com CIN: L27100MH1907PLC000260

#### NOTICE

A meeting of the Board of Directors of Tata Steel Limited (the 'Company') will be held on Friday, November 13, 2020, inter alia, to consider and take on record the audited Standalone and unaudited Consolidated financial results of the Company for the quarter and half year ended September 30, 2020.

The financial results will be made available on the website of the Company at www.tatasteel.com as well as on the website of the National Stock Exchange of India Limited at www.nseindia.com and BSE Limited at www.bseindia.com.

#### **Tata Steel Limited**

Parvatheesam Kanchinadham

(All amount in Rupees lakhs unless otherwise stated)

November 6, 2020

Mumbai

Company Secretary & Chief Legal Officer (Corporate & Compliance)

**TATA STEEL** 

Home Credit India HOME Finance Private Limited CREDIT CIN: U65910HR1997PTC047448

Regd. Office: Third Floor, Tower C DLF Infinity Towers, DLF Cyber City-Phase II, Gurgaon, Haryana -122002, Website: www.homecredit.co.in Unaudited financial results for the six month ended September 30, 2020

S.	Particulars	Half year ended	Half year ended	Year ended 31 March 2020	
No.		30 September 2020	30 September 2019		
		(Unaudited)	(Unaudited)	(Audited)	
1,	Total income from operations	136,343.46	148,413.90	311,514.69	
2.	Net profit/(loss) for the period (before tax, exceptional and/or extraordinary items)	(49,506.21)	11,822,42	11,704.06	
3.	Net Profit/(loss) for the period before tax (after exceptional and/or extraordinary items)	(49,506.21)	11,822.42	11,704.06	
4.	Net Profit/(loss) for the period after tax (after exceptional and/or extraordinary items)	(37,339.58)	2,261.33	(4,514.42)	
5.	Total comprehensive income for the year [Comprising profit/ (loss) for the year (after tax) and other comprehensive income (after tax)]	(37,406.71)	2,196.65	(4,799.70)	
6.	Paid up equity share capital	97,658.32	97,658.32	97,658.32	
7.	Reserves (excluding revaluation reserve)	114,337,52	158,740.57	151,744.23	
8.	Net worth	211,995.84	256,398.89	249,402.55	
9.	Outstanding debt	542,043.03	537,949.11	610,637.96	
10.	Outstanding redeemable preference shares	3	3	-	
11.	Debt equity ratio	2.56	2.10	2.45	
12.	Earnings per share (of Rs. 10/- each)* - Basic - Diluted	(3.82) (3.82)	0.23 0.23	(0.46) (0.46)	
13.	Capital redemption reserve (refer note 5)	Not Applicable	Not Applicable	Not Applicable	
14.	Debenture redemption reserve (refer note 5)	Not Applicable	Not Applicable	Not Applicable	
15.	Debt service coverage ratio (refer note 5)	Not Applicable	Not Applicable	Not Applicable	
16.	Interest service coverage ratio	Not Applicable	Not Applicable	Not Applicable	

\*EPS for six months ended 30 September 2020 and 30 September 2019 has not been annualised

1) In accordance with Regulation 52 of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Company has published unaudited financial results for the six month ended 30 September 2020. The above unaudited financial results were reviewed by the Audit Committee at its meeting held on 06 November 2020 and approved by the Board of Directors at its meeting held on 06 November 2020

The above is an extract of the detailed unaudited financial results filed with Stock Exchange under Regulation 52 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations. 2015. The full financial results are available on the website of the Bombay Stock Exchange and the website of the Company (www.homecredit.co.in).

For the items in sub-clauses (a), (b), (d) & (e) of the Regulation 52(4) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, the pertinent disclosures have been made to the Bombay Stock Exchange and can be accessed on www.bseindia.com Previous year/period figures have been regrouped/rearranged, wherever considered

The pertinent items have not been disclosed since it is not required as per Regulation 52(4) of the SEBI (Listing and Other Disclosure Requirements) Regulations, 2015.

necessary, to confirm to the classification/ disclosure adopted in the current year.

For and on behalf of the Board of Directors of Home Credit India Finance Private Limited

Place: Gurugram Ondrej Kubik

(Amount in ₹ lakhs)

Date: 6 November 2020



(A Government of India Enterprise)

Shipping House, 245, Madam Cama Road, Mumbai-400 021. Website: www.shipindia.com Twitter: @shippingcorp; CIN No.: L63030MH1950GOI008033

	Particulars	STANDALONE			CONSOLIDATED		
Sr. No.		Quarter Ended 30.09.2020 (Unaudited)	Half Year Ended 30.09.2020 (Unaudited)	Quarter Ended 30.09.2019 (Unaudited)		Half Year Ended 30.09.2020 (Unaudited)	Quarter Ended 30.09.2019 (Unaudited
1	Total income from Operations	84,321	198,667	97,444	84,321	198,667	97,444
2	Net Profit/(Loss) for the period (Before Tax, Exceptional and/or Extraordinary items)		46,496	(4,054)	14,414	49,511	(2,491)
3	Net Profit/(Loss) for the period before tax (after Exceptional and/or Extraordinary items)		46,496	(4,054)	14,414	49,511	(2,491)
4	Net Profit/(Loss) for the period after tax (after Exceptional and/or Extraordinary items)		44,861	(5,654)	14,189	47,876	(4,091)
5	Total Comprehensive Income for the period [Comprising Profit/(Loss) for the period (after tax) and Other Comprehensive Income (after tax)]		46,225	(5,513)	15,168	47,484	(6,112)
6	Equity Share Capital	46,580	46,580	46,580	46,580	46,580	46,580
7	Reserves (excluding Revaluation Reserve) as shown in the Audited Balance Sheet of the previous year		-	-		22	

STATEMENT OF UNAUDITED FINANCIAL RESULTS FOR THE QUARTER ENDED 30.09.2020

a) The above is an extract of the detailed format of Quarterly/Half yearly Financial Results filed with the Stock Exchanges under Regulation 33 of SEBI (Listing and Other Disclosure Requirements) Regulations, 2015. The Full format of the Quarterly/Half yearly Financial Results are available on the Stock Exchange websites.(www.bseindia.com and www.nseindia.com) Company's website: www.shipindia.com

2.82

2.82

compliance with Indian Accounting Standards (Ind-AS). c) The above results have been reviewed by the Audit Committee and approved by the Board of Directors at their

b) Standalone & Consolidated Financial results for the guarter and half year ended 30th September 2020 are in

respective meetings held on 6th November 2020.

9.63

9.63

For The Shipping Corporation of India Ltd

Mrs. H. K. Joshi

Place: Mumbai Date: 06.11.2020

8 Earnings Per Share (of ₹ 10 each) (for continuing and discontinued operations)

(in ₹)

Basic:

Diluted:

financialexp.ep. in

Chairperson & Managing Director & Director (Finance) Addl.charge DIN - 07085755 -!HHH IAAAA

(1.21)

(1.21)

3.05

3.05

10.28

10.28

(0.88)

(0.88)

TRANSPORTING GOODS. TRANSFORMING LIVES.



### THE MANDHANA RETAIL VENTURES LIMITED

CIN: L52390MH2011PLC213349

Registered Office: Plot No. E-132, MIDC Tarapur Industrial Area, Boisar, Dist. Palghar - 401506 Corporate Office: 014, Peninsula Centre, Dr. S S Rao Road, Parel, Mumbai - 400012 Tel No:- 022 43539790 • Email:- cs@tmrvl.com • Website: www.mrvlindia.com

# Extract of Unaudited Financial Results for the Quarter ended 30th June, 2020

(Rs. In Lakh, except earnings per share)

Sr. No.	Particulars		Year Ended		
		30.06.2020	31.03.2020	30.06.2019	31.03.2020
		Unaudited	Audited	Unaudited	Audited
1	Total Income from Operations	171.60	2,041.04	4,627.46	16,073.17
2	Net Profit / (Loss) for the period (before tax, Exceptional and/or Extraordinary items)	(68.04)	(1,634.56)	23.54	(2,193.91)
3	Net Profit / (Loss) for the period before tax (after Exceptional and/or Extraordinary items)	(68.04)	(1,634.56)	23.54	(2,193.91)
4	Net Profit / (Loss) for the period after tax (after Exceptional and/or Extraordinary items)	(68.04)	(2,564.59)	33.87	(3,105.02)
5	Total Comprehensive Income for the period [Comprising Profit / (Loss) for the period (after tax) and Other Comprehensive Income (after tax)]	(10.47)	22.52	2.70	22,52
6	Equity Share Capital	2208.26	2208.26	2208.26	2208.26
7	Other Equity	828	20	W.	1,393.10
8	Earnings Per Share (of Rs. 10/- each) (for continuing and discontinued operations) -  1. Basic 2. Diluted	(0.31) (0.31)	(11.61) (11.61)	0.15 0.15	(14.06) (14.06)

#### Notes:

- 1. The above financial results have been reviewed by the Audit Committee and approved by the Board of Directors at their respective meeting held on 6th November, 2020.
- 2. The above is an extract of the detailed format of Unaudited Financial Results filed with the Stock Exchanges under Regulation 33 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015. The full format of the Unaudited Financial Results are available on the website of the BSE Limited at their website www.bseindia.com and National Stock Exchange of India Limited at their website www.nseindia.com and on the website of the Company at www.mrvlindia.com

By Order of the Board of Directors FOR THE MANDHANA RETAIL VENTURES LIMITED

PRIYAVRAT P. MANDHANA

**EXECUTIVE DIRECTOR** 

DIN: 02446722

Mumbai

06<sup>™</sup> November, 2020

ARTEMIS

ARTEMIS MEDICARE SERVICES LIMITED

Plot No.14, Sector 20, Dwarka, South West Delhi, Delhi- 110075

Ph.: +91-124-4511111; Fax: +91-124-4588899;

Email: info@artemishospitals.com; Web site: www.artemishospitals.com

CIN: L85110DL2004PLC126414

(₹ in Lakhs) EXTRACT OF CONSOLIDATED FINANCIAL RESULTS FOR THE QUARTER AND HALF YEAR ENDED SEPTEMBER 30, 2020

S. No.	Particulars	Quarter ended		Half Year ended		Year ended	
		30-Sep-20	30-Sep-19	30-Sep-20	30-Sep-19	31-Mar-2020	
		(Unaudited)	(Unaudited)	(Unaudited)	(Unaudited)	(Audited)	
1.	Total Income from Operations	9,232.94	14,733.98	15,505.76	28,304.74	56,501.79	
2.	Net Profit/(Loss) for the period (before Tax, Exceptional and/or Extraordinary Items)	(34.74)	912.72	(1,796.25)	1,578,49	3,062.91	
3.	Net Profit/(Loss) for the period before tax (after Exceptional and/or Extraordinary Items)	(34.74)	912.72	(1,796.25)	1,578,49	3,062.91	
4.	Net Profit/(Loss) for the period after tax (after Exceptional and/or Extraordinary Items)	2.61	538.20	(1,174.39)	964.80	1,946.01	
5.	Total Comprehensive Income for the period [comprising Profit for the period (aftertax) and Other Comprehensive Income (after tax)]	27.38	545.43	(1,157.66)	970.91	1,944.33	
6.	Paid-up Equity Share Capital (Equity Shares of Rs.10/-each)	1,323.77	1,323.77	1,323.77	1,323.77	1,323.77	
7.	Reserves (excluding Revaluation Reserve)					23,401.98	
8.	Earning per Equity Share (Face value Rs.10/-each) (a) Basic (b) Diluted (* Not annualised)	0.11* 0.11*	4.18* 4.18*	-8.73* -8.73*	7.45* 7.45*	14.95 14.95	

S. No.

The key standalone financial information of the Company is as under:

Net Profit/(Loss) for the period before Tax after Exceptional

Particulars

Net Profit/(Loss) for the period after Tax

Total Income from Operations

(₹ in Lakhs) Quarter ended Half Year ended Year ended 30-Sep-19 30-Sep-20 30-Sep-19 31-Mar-2020 (Unaudited) (Unaudited) (Unaudited) (Audited) 14,725.47 15,255.97 28,296.23 56,309.09 954.34 (1,723.00)1,634.97 3,196.54

1,026.24

2.042.83

The above is an extract of the detailed format of unaudited financial results filed with the Stock exchanges under Regulation 33 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015. The full format of the financial results (Consolidated/ Standalone) are available on the Stock Exchange websites. (National Stock Exchange of India Limited (www.nseindia.com) & BSE Limited (www.bseindia.com) and on the company's website (www.artemishospitals.com).

30-Sep-20

(Unaudited)

9.088.10

8.99

35.41

584.75

(1.119.53)

The above results for the guarter and half year ended were reviewed by the Audit Committee meeting held on November 05, 2020 and approved by the Board of Directors meeting held on November 05, 2020. The Statutory Auditors have expressed an unmodified opinion on the aforesaid results.

The above financial results have been prepared in accordance with the companies (Indian Accounting Standards) Rules, 2015 (Ind AS), as prescribed under Section 133 of the Companies Act 2013, and the other recognised accounting practices and policies to the extent applicable.

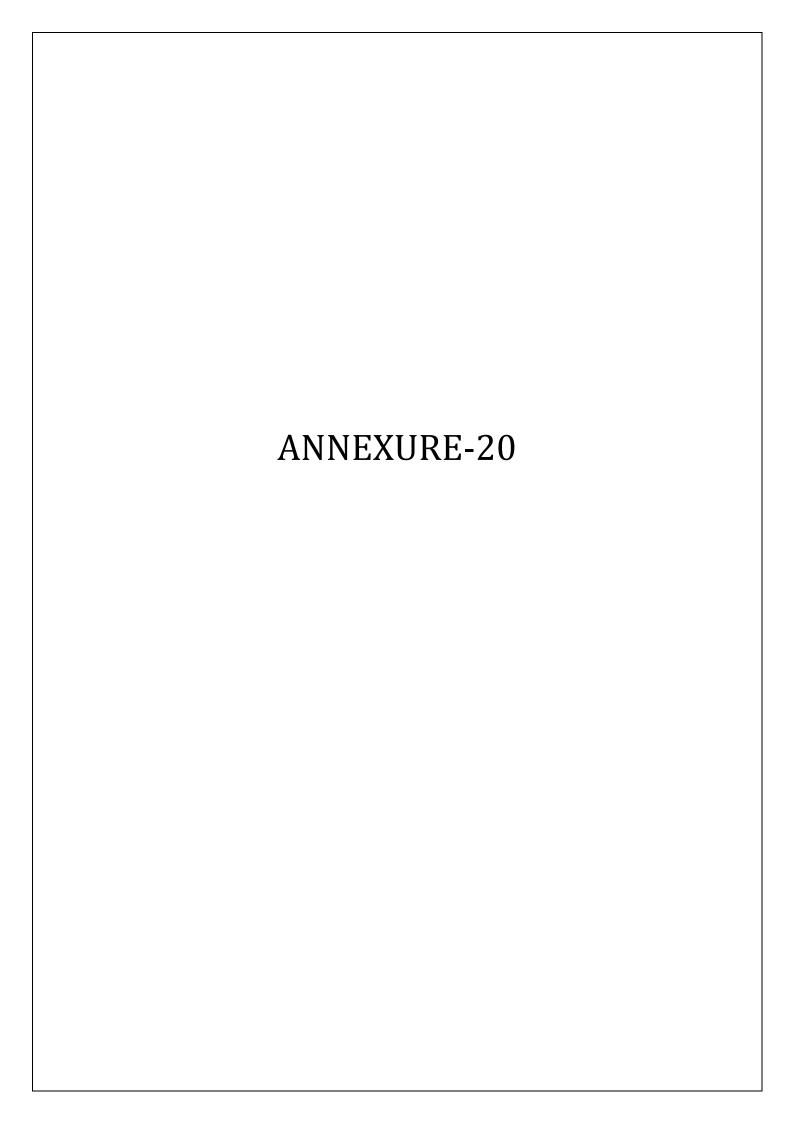
> For and on behalf of the Board of Directors of Artemis Medicare Services Limited

Place: New Delhi Dated: November 5th, 2020

Onkar S. Kanwar Chairman & Director



Kolkata



# Submission of Environment Statement (Form-V) for FY: 2022-23 of M/S Bravo Sponge Iron Pvt. Limited

#### R K Mishra <rk.mishra@shakambharigroup.in>

Fri 10/20/2023 8:48 PM

To:ee11.wbpcb-wb@bangla.gov.in <ee11.wbpcb-wb@bangla.gov.in>
Cc:Dr Soma Das <iro.kolkata-mefcc@gov.in>;Sanjeev Kumar Sachan <sanjeev.sachan@shakambharigroup.in>

1 attachments (2 MB)

BSIPL Env. Statement 2022-23.pdf;

Dear Sir,

With reference to the subject we are submitting attached herewith the Environment Statement (Form-V) for the financial year ending 31<sup>st</sup> March, 2023 of M/S Bravo Sponge Iron Pvt. Limited, Vill-Mahuda, PO-Rukni, Dist-Purulia (WB) for your kind consideration please.

Kindly acknowledge our submission

With regards,

Yours faithfully,

for Bravo Sponge Iron Pvt. Limited

R. K. Mishra DGM-EHS



# **BRAVO SPONGE IRON PRIVATE LIMITED**

CIN: U27106WE1997PTC082921 | GSTIN: 19AACCB5058J1ZH | PAN: AACCB5058J | State: West Bengal | State Code: 19

Ref.: BSIPL/ES/2022-23 Date: 18th Oct-2023

### The Environmental Engineer

West Bengal Pollution Control Board
Asansol Regional Office,
Kalyanpur Satellite Township Project,
Dr. B.C. Roy Road, PO- Dakshin Dhadka, Asansol-713302,
Dist.-Paschim Bardhaman (WB)

Sub: Environment Statement (FY: 2022-2023) of M/s Bravo Sponge Iron Pvt. Limited, Vill-Mahuda, PO-Rukni, Dist-Purulia (WB)-723145

Dear Sir,

With reference to above subject we are submitting herewith the Environment Statement (Form-V) for financial year ending 31st March, 2023 of M/s Bravo Sponge Iron Pvt, Limited, Vill-Mahuda, PO-Rukni, Dist-Purulia (WB) for your kind consideration please.

Kindly acknowledge our submission

Thanking you,

Yours faithfully,

For Bravo Sponge Iron Pvt. Limited

(Authorized

Encl: As above

Copy to:

The IGF, GOI, MoEF&CC, Integrated Regional Office, Kolkata, IB-198, Salt Lake City, Sector-III, Kolkata-700106

Regd. Office & Works: Vill - Mohuda, P.O. - Rukni, P.S.: Para, Near Rukhni. Railway Station, Dist - Purulia, West Bengal - 723145, India

## FORM – V ENVIRONMENTAL STATEMENT (See rule 14)

Environmental Statement for the financial year 2022-2023 ending with 31st March

#### PART-A

i. Name and address of the owner/occupier of the industry operation or process

Mr. Deepak Kumar Agarwal M/s Bravo Sponge Iron Pvt. Ltd. Village- Mahuda, P.O-Rukni, P.S-Para, Dist: Purulia, Pin- 723145.

- ii. Industry category Primary Large Secondary Red
- iii. Production category Iron & Steel
- iv. Year of establishment 2003-04 (Our Group has acquired this establishment in Sept- 2015)
- v. Date of the last environmental statement submitted- 30 September 2022

#### PART-B

#### Water and Raw Material Consumption:

#### i. Water consumption in m3/day

Process: - 865 m<sup>3</sup>/d Cooling: - 413 m<sup>3</sup>/d Domestic: - 25 m<sup>3</sup>/d

Name of Products	Process water consumption (m³) per unit of products							
	During the previous financial year (2021-22)	During the current financial year (2022-23)						
Sponge Iron	0.35 m <sup>3</sup> /T	0.36 m <sup>3</sup> /T						
MS Billet	0.47 m <sup>3</sup> /T	0.46 m <sup>3</sup> /T						
Pellet	0.29 m <sup>3</sup> /T	0.23 m <sup>3</sup> /T						
Electricity	0.56 m <sup>3</sup> /MW	0.58 m <sup>3</sup> /MW						

#### ii. Raw material consumption

Name of raw	Name of	Consumption of raw mate	erial per unit of output (Kg/T)
materials*	Products	During the previous financial year (2021-22)	During the current financial year (2022-23)
DRI DIVISION			
Iron Ore		610	352
Iron ore Pellet		976	1173
Coal	Sponge Iron	1057	1045
Dolomite		47	49

Name of raw	Name of	Consumption of raw material per unit of output (Kg/I					
materials*	Products	During the previous financial year (2021-22)	During the current financial year (2022-23)				
SMS Division							
Pig Iron		80	60				
Sponge Iron	NG Dille	908	978				
Scrap	MS Billet	216	266				
Ferro alloys		13	6				
PELLET DIVISION							
Iron ore fines	Pellet	1166	1181				
Bentonite		7	7				
Lime stone		13	12				
COAL		15	[1]				
CPP DIVISION			THE RESERVE OF THE PARTY OF THE				
Coal fines	Electricity	30 Kg/MW	20 Kg/MW				
Dolochar		692 Kg/MW	938 Kg/MW				
PRODUCER GAS PLAN	IT						
COAL	Gas production		0.438Kg/M <sup>3</sup>				

<sup>\*</sup> Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

### PART-C

# Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

# (a) Water

Pollutants	Quantity of Pollutants discharged (Kg/day)	Concentration of pollutants discharged (mg/Nm3)	Percentage of variation form prescribed standards with reasons		
a) Water	0	0	No Industrial waste water discharge outside the factory premises.		
B) Air					
PM-DRI (100TPD & 95 TPD)	54.109	26.8	Below Prescribed		
PM- DRI (100TPD & 100 TPD)	31.487	17.54	standards and Monitoring reports		
PM- SMS	7.615	37.06	attached		
PM- PELLET Plant	153.24	28.54			
PM- CPP (AFBC)	53.029	22.36	Below Prescribed		
SO2 -CPP	203.39	85.76	standards and		
NOx -CPP	187.62	79.11	Monitoring reports attached		

Monitoring reports attached



(As specified under Hazardous Wastes (Management & Handling Rules, 1989).

Hazardous Wastes	Total Quantity (MT)					
	During the current financial year (2021-22)	During the current financial year (2022-23)				
Used oil from operation/ Maintenance	0.625	1.108				
Cotton waste from cleaning	0.240	0.260				
From pollution control facility's	Nil	40.88				

#### PART-E

Solid Wastes	Total Quantity (MT)						
	During the previous financial year (2021-22)	During the current financial year (2022-23)					
From Process	54542	57838					
From Pollution Control Facilities	52499	61993					
Quantity recycled or reutilized within the unit	48297	48681					
Sold	38328	52111					
Disposed	20416	19040					

#### PART-F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Solid waste Type	Quantity (TPA)	Disposal System
Dolochar	37258	Used in CPP power plant as a fuel.
Fly Ash	52111	Sold to Brick manufacturing
Bottom Ash/Bed material	14511	land filling & road making
BF flue dust from DRI	5126	Used in Pellet pant and CPP pant
IF Slag	4435	Used in road construction and land filling
MS Scrap & Mill Skull	1142	Reused in SMS
Metal from SMS Slag	493	Reused in SMS
Pellet ESP Dust	4663	Used in Pellet plant
BF flue dust (SMS)	93	Used for land filling

#### PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

List of Environmental Management Programme (EMPs) are given below-

Description	Expenditure for Pollution Control measures on Conservation of Natural Resources (Rs. in lakbs)			
Total Cost towards Air Pollution Control Measures, Environmental Monitoring, EHS Management & training, Waste Management System, EHS, Green Belt Development (Plantation & Plant Maintenance), etc.	85.00			

#### PART-H

Additional measures/investment proposal for environmental protection including abatement of pollution.

Already included in Part G.

We have taken the massive plantation program for green belt/green cover development in and around the factory promises.

PART-I

#### MISCELLANEOUS

Any other particulars in respect of environmental protection and abatement of pollution.

- (1) We are complying with the directions given by the WBPCB, and getting regular Air & Water consents.
- (2) Periodic Environmental Monitoring being done by NABL accredited laboratory to ascertain the efficiency of pollution control systems installed.

#### **Enclosure List:**

Copies of analysis report -Annexure-1.

2) Copy of Form-4 Annual Return of Hazardous Waste as Annexure-2.







#### FORMAT NO: ENV/FM/38

Name of the Industry	3	Bravo Sponge	Туре	of In	dustry	1:	Steel & Power Unit			
Address : Vill. – Mohuda, P.O. – Rukni, P.S. – Para, Purulia – 723145		Sampling Date			1	24.02.202	3			
		723145	723145			Period of Analysis			3-	27.02.2023
				Date o	fIss	ue	:	28.02.202	3	
Sampling Plan & Procedure		ENV/SOP/01	Deviation from the Sampling Method	and Plan	:	No	Туре	of Sample	:	Stack Emission
Sample Condition	:	Sealed Samp	le ID No. : ENV/64/Feb./A/I	Report	Report No. :		ENV	/64/Feb./TF	(A)	The second secon

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	- :	Rotary Kiln (No. 1 & 2) attached to commo	on stack		
Shape of Stack	1	Circular	Height of Stack (mtr.) (from G. L.)	2.	30.0
Materials of Construction	2	M.S.	Stack LD. at sampling point (mtr.)		1.9
Capacity	:	No.1 - 100 TPD & No.2 - 95 TPD	Height of sampling port (mtr.) (from G.L.)	:	14.0
Emission Due to	1:	Oxidation of Coal & Reduction of Fe-Ore	positive and the second		
Fuel Used	Te in	Coal	Permanent Platform & Ladde	25.	: Yes
Working Fuel Consumption	3	5.12 MT/hr. (each Kiln)			111100
Pollution Control Device	1	E.S.P with W.H.R.B		45	en v

#### B. RESULTS

SL. No.	PARAMETERS	UNIT	METHOD NO.		RESULTS
ι.	Flue Gas Temperature	oC .	IS 11255 (Part 1)		151.0
2.	Barometric Pressure	mm of Hg.		:	758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)		12.0
1.	Quantity of Gas flow	Nm3/hr.	IS 11255 (Part III)		84125.12
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>2</sup>	IS 11255 (Part 2) 1985 RA 2003		555,33
5.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003		11.0
4	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	9	<1.0
3.	a) Concentration of Particulate Matter (at 11% CO <sub>2</sub> )	mg/Nm³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005):	1	26.80
	b) Concentration of Particulate Matter (at 12% CO <sub>2</sub> )		Sec. 11 (Vol. 3 11.07) : 2011	:	29.23

Reviewed By:

DURBADAL CHAKRABORTY Dy. Quality Manager

**Authorised Signatory:** 

Dr. AJOY PAUL Quality Manager

H.O.

: 63/B, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792891/ 25497490 = Fax : 033 25299141

Laboratory

189, 190 & 192, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792889

Info@envirocheck.in / envirocheck50@gmall.com = Website : www.envirocheck.in

Branch Office : Siliguri - Haldia - Durgapur - Dhanbad - Gangtok - Port Blair - Dehradun - New Delhi





#### FORMAT NO : ENV/FM/38

Name of the Industry	-	Bravo Sponge Iron Pvt. Ltd.					Type of Industry			1	: Steel & Power Unit		
Address		Vill. – Mohuda. 723145	All the second of the second o			- Mohuda. P.O Rukni, P.S Para, Purulia - Sampling Date  145 Period of Analysis			:	24.02.2023 25.02.2023 - 27.02.2023			
	L.N					Da	Date of Issue			1	28.02.20	23	
Sampling Plan & Procedure	-	ENV/SOP/01	Deviation from the Sampling Method		d and Pl	an	:	No	Турс	of Sample	:	Stack Emission	
Sample Condition		Sealed Samp	le ID No.	: ENV	64/Feb./A/II	Re	port.	No.		ENV	/64/Feb./1	R(A	/11/22-23

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln (No. 3 & 4) attached to com:	mon stack		
Shape of Stack	-	Circular	Height of Stack (mtr.) (from G. L.)	i	30.0
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	1.80
Capacity	:	100 TPD (each kiln)	Height of sampling port (mtr.) (from G.L.)	:	15.0
Emission Due to	:	Oxidation of Coal & Reduction of Fe-Ore		Y S	Market Land
Fuel Used	:	Coal	Permanent Platform & Lac	dder	: Yes
Working Fuel Consumption		5.12 MT/hr. (each Kiln)	100 100 100 100 100 100 100 100 100 100		
Pollution Control Device	1:	E.S.P with W.H.R.B		100	

#### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
l	Flue Gas Temperature	oC.	IS 11255 (Part 1)		158.0
2.	Barometric Pressure	mm of Hg.		100	758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	12.10
4.	Quantity of Gas flow	Nm3/hr.	IS 11255 (Part III)	:	74799.10
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	4	567.14
6.	Concentration of CO2	% (v/v)	IS 13270 1992 RA 2003		10.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003		<1.0
8.	a) Concentration of Particulate	mg/Nm3	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D		17.54
7.50	Matter (at 10.8% CO2)	O.	3685/D 3685M-98 (reapproved 2005):		
	b) Concentration of Particulate Matter (at 12% CO <sub>2</sub> )		Sec. 11 (Vol. 3 11.07): 2011		19.49

Remarks :

Reviewed By:

News -

DURBADAL CHAKRABORTY Dy. Quality Manager Authorised Signatory:

Mark

Dr. AJOY PAUL Quality Manager

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi





#### FORMAT NO: ENV/FM/38

Name of the Industry	;	Bravo Sponge I	ron Pvt. Ltd.	Туре	of In	dustry	1	US AS DESCRIPTION	iteel & Power Unit		
Address		Vill Mohuda. 723145	P.O. – Rukni, P.S. – Para, Purulia –	Sampl Period Date of	of	Analys	S :	24.02.2023 25.02.2023 - 27.02.2023 28.02.2023			
Sampling Plan & Procedure	2	ENV/SOP/01	Deviation from the Sampling Method			No	Туре	of Sample	:	Stack Emission	
Sample Condition	:	Sealed Samp	le ID No. : ENV/64/Feb./A/III	Repor	t No		ENV/	/64/Feb./TI	R(A)	/111/22-23	

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	1:	AFBC Boiler			
Shape of Stack	1:	Circular	Height of Stack (mtr.) (from G. L.)	:	45.0
Materials of Construction		M.S.	Stack LD, at sampling point (mtr.)	2	2,20
Capacity		20 TPH	Height of sampling port (mtr.) (from G.L.)		16,0
Emission Due to	1:	Oxidation of Coal & Reduction of Fe-Ore			W-00.W-
Fuel Used	1:	Coal & Dolochar	Permanent Platform & Ladde	r	: Yes
Working Fuel Consumption	:	Coal - 110 TPD & Dolochar - 130 TPD			
Pollution Control Device	:	E.S.P with W.H.R.B	and the second s		

#### B. RESULTS

SL. NO.	PARAMETERS	PARAMETERS UNIT METHOD NO.				
1.	Flue Gas Temperature	oC.	IS: 11255 (Part 1)	10	144.0	
2.	Barometric Pressure	mm of Hg.		*	758.0	
3.	Velocity of Gas flow	m/s	IS: 11255 (Part 3)	1	10,33	
4.	Quantity of Gas flow	Nm3/hr.	IS: 11255 (Part III)		98816.46	
5.	Concentration of SO <sub>2</sub> (at 6% O <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part 2): 2019	1	85.76	
6.	Concentration of NO <sub>x</sub> (at 6% O <sub>2</sub> )	mg/Nm³	IS 11255 (Part 7) : 2017 / ASTM D 1608-98, Sec. 11 (Vol. 11.07) : 2017		79.11	
7.	Concentration of CO2	% (v/v)	15 13270 : 2019	15	10.4	
8.	Concentration of O2	% (v/v)	EPA Method 3: 2017	:	8.4	
9.	Concentration of CO	%(v/v)	IS 13270 : 2019	:	<1.0	
	a) Concentration of Particulate Matter	mg/Nm <sup>3</sup>	IS 11255 (Part - 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11		22.36	
	b) Concentration of Particulate Matter (at 6% CO <sub>2</sub> )	mg/Nm³	(Vol.11.07):2017	1	26.61	

Reviewed By:

Dent of

DURBADAL CHAKRADORTY

Dy. Quality Manager

Authorised Signatory:

Ment

Dr. AJOY PAUL Quality Manager

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#### FORMAT NO: ENV/FM/38

Name of the Industry	:	Bravo Sponge I	ron Pvt. Ltd.	Туре	of In	dustry		•	Steel & Po	Steel & Power Unit				
Address	:	Vill Mohuda. 723145				723145 Period of Anal		Period of Analysis Date of Issue		is	:	PRODUCE AND ADDRESS OF	2023 - 27.02.2023	
	1	Contract to the second	and the second of the second o	Date o	f Iss	ue		:	28.02.202	3				
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method	and Plan	i	No	Тур	Type of Sample		:	Stack Emission			
Sample Condition	:	Sealed Samp	le ID No. : ENV/64/Feb./A/IV	Repor	t No	. :	EN	V/	64/Feb./TR	(A)	/IV/22-23			

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Hood Over 2 nos. Induction Furnace atta	iched to common stack		
Shape of Stack		Circular	Height of Stack (mtr.) (from G. L.)	:	30.6
Materials of Construction	-33	M.S.	Stack I.D. at sampling point (mtr.)	1	0.6
Capacity	1	15 MT/Charging (each furnace)	Height of sampling port (mtr.) (from G.L.)	:	
Emission Due to	156	Melting of Sponge Iron, Pig Iron Scraps of	etc.		We are the second
Fuel Used	:	Electricity Operated	Permanent Platform & Lac	lder	: Yes
Working Fuel , Consumption	•	Nil			
Pollution Control Device	1:3	Bag Filter	W military and a second	1115	

#### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	oC	IS 11255 (Part 1)	1	56.0
2.	Barometric Pressure	mm of Hg.			758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	. 5	9.31
4,	Quantity of Gas flow	Nm³/hr.	IS 11255 (Part III)		8561.54
5.	Concentration of Particulate	mg/Nm³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D		37.06
	Matter	191.0	3685/D 3685M-98 (reapproved 2005): Scc. 11		
			(Vol. 3 11.07): 2011		

Reviewed By:

James !

DOKBADAL CHAKKABORTY Dy. Quality Manager Authorised Signatory:

Mark

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#### FORMAT NO: ENV/FM/38

Name of the Industry		Bravo Sponge I	ron Pvt. Ltd.	Type o	f In	dustry		:	Steel & Por	wer	Unit
Address	: Vill Mohuda, P.O Rukni, P.S Para, Purulia - Sampling Date				: 24.02.2023						
		723145 Period of Analysi		s :		25.02.2023	3 -	27.02.2023			
				Date o	f Iss	ue		: [	28.02.2023	3	
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method	and Plan	10	No	Тур	Type of Sample		I	Stack Emission
Sample Condition	:	Sealed Samp	le ID No. : ENV/64/Feb./A/V	Repor	No		ENV	1/	64/Feb./TR	(A)	/V/22-23

#### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to		Fe-Ore Pallet Formation Stack			
Shape of Stack	::	Circular	Height of Stack (mtr.) (from G. L.)	:	50.0
Materials of Construction		Concrete	Stack I.D. at sampling point (mtr.)	2	3.0
Capacity		2500 MT/Day	Height of sampling port (mtr.) (from G.L.)	200	-
Emission Due to	:	Combustion of Producer Gas & PCI Co	oal		
Fuel Used		Producer Gas & PCI Coal	Permanent Platform & Ladd	er	: Yes
Working Fuel Consumption		2.78 MT/hr.			
Pollution Control Device	:	ESP			

#### B. RESULTS

SL.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	oC.	IS 11255 (Part 1)	 114.0
2.	Barometric Pressure	mm of Hg.	CENTRAL PROPERTY OF THE PROPER	758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	11.46
4.	Quantity of Gas flow	Nm3/hr.	IS 11255 (Part III)	223718.68
5.	Concentration of SO <sub>2</sub> (at 6% O <sub>2</sub> )	mg/Nm³	IS 11255 (Part 2) 1985 RA 2003	43.58
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	9.0
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	<1.0
8.	Concentration of Particulate	mg/Nm <sup>3</sup>	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D	28.54
	Matter		3685/D 3685M-98 (reapproved 2005): Sec. 11 (Vol. 3 11.07): 2011	

Remarks : Result relates only to the sample tested.

Reviewed By:

DURBADAI CHAERABORTY Dy. Quelly Manager Authorised Signatory:

Buch

Dr. AJOY PAUL Quality Manager

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#### FORM 4

## [See rules 6(5), 13(8), 16(6) and 20 (2)]

#### Annual Return

#### under

# Hazardous & Other Wastes(Management & Transboundary Movement) Rules, 2016 Transboundary Movement) Rules, 2016

To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March

Return No: 4170044

Period: 2022-2023

1. Name of facility/Industry Industry Address of facility/Industry		NGE IRON PVT. L PO-Rukni, PS-Par		2 (WB)				
2. UID	WB02996830	10						
3.Authorisation No Date of issue: Date of Expiry	252/2S(HW) 3 23/12/2022 31/07/2024	8675/2019						
4. (i) Name of the authorised person & Designation	Deepak Kumar Agarwal Director							
(ii) Correspondence Address	Village- Mahuda, P.O-Rukni, P.S-Para, Dist: Purulia, Pin- 723145.							
(iii) Mobile No	9233331111							
(iv) Land Line No (with area code)								
(iv) Fax number (with area code)	0 0 000							
(vi) e-mail	cmd@shakam	bharigroup.in						
(vii) Type of HW Handler	Generator		THU					
(viii) If involved in Interstate Movement of HW	Yes							
5. Production during the year (product wise), wherever applicable	Sr.no	Product Name	Quantity	Unit				
	I	SPONGE IRON	150567	Metric Ton				
	2	M.S. BILLET	28501	Metric Ton				
	3	PELLET	1036205	Metric Ton				

			Part	A. 10 DC	filled by ha	zardous w	aste gener	ators			
S r. n o	Name of Process	Cate	Waste Stream	Unit	Quantit y in stock at the beginnin g of the year	Total quantity of waste generate d	Quantit y dispatch ed to disposal facility	Quantit y dispatch ed to recycler or co- processo rs or pre- processo r	Quantit y dispatch cd to others	Quantit y utilised in house	Quantity in storage at the end of the yea

I	Schedule I - 35. Purification and treatment of exhaust air/gases, water and waste water from the processes in this schedule and common industrial effluent treatment plants (CETPs)	Exha ust Air or Gas clean ing resid ue	35.1	Metric Ton	0 Metric Tonnes/Y ear	41,16 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	40.88 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0.279999 9999999 9403 Metric Tonnes/Y ear
2	Schedule I - 13.Production of iron and steel including other ferrous alloys (electric furnaces; steel rolling and finishing mills; Coke oven and by product plant)	Used Oil	5.1	Metric Ton	0.025 Metric Tonnes/Y ear	1.1 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	I.108 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0.016999 9999999 99904 Metric Tonnes/Y ear
3	Schedule I - 13.Production of iron and steel including other ferrous alloys (electric furnaces; steel rolling and finishing mills; Coke oven and by product plant)	Used Cotto n	5.2	Metric Ton	0 Metric Tonnes/Y ear	0.26 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0.26 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear

		1 41 1	J. TO DE III	ica oj 11	eatment, st	Oxap, Cana	uisposui i	The state of the s			
S r. n o	Name of Process	Cate	Waste Stream	Unit	Quantit y in stock at the beginnin g of the year	Total quantity received	Quantit y treated	Quantit y disposed in landfills as such and after treatme nt	у	y processe d other	y in storage at the end of

- 1	201	Tait	C. To be ii	neu by re	eyelers or co		100	No description		
S r. n	Name of Process	Categ	Waste Stream	Unit	Quantity in stock at the beginnin g of the year	Quantity of waste received during the year from Domestic sources	Quantity of waste received during the year Imported	Quantity recycled or co- processe d or used	Quantity re- exported (whereve r applicabl e)	Quantity in storage at the end of the year

Part D. Details of Interstate Movement									
Sr.no	Name of Industry (Within State)	District	Receiving/S ending	Name of Industry (Other State)	State	Type of Waste	Qty.(MTA)	Purpose (Recycling Disposal/In cineration)	

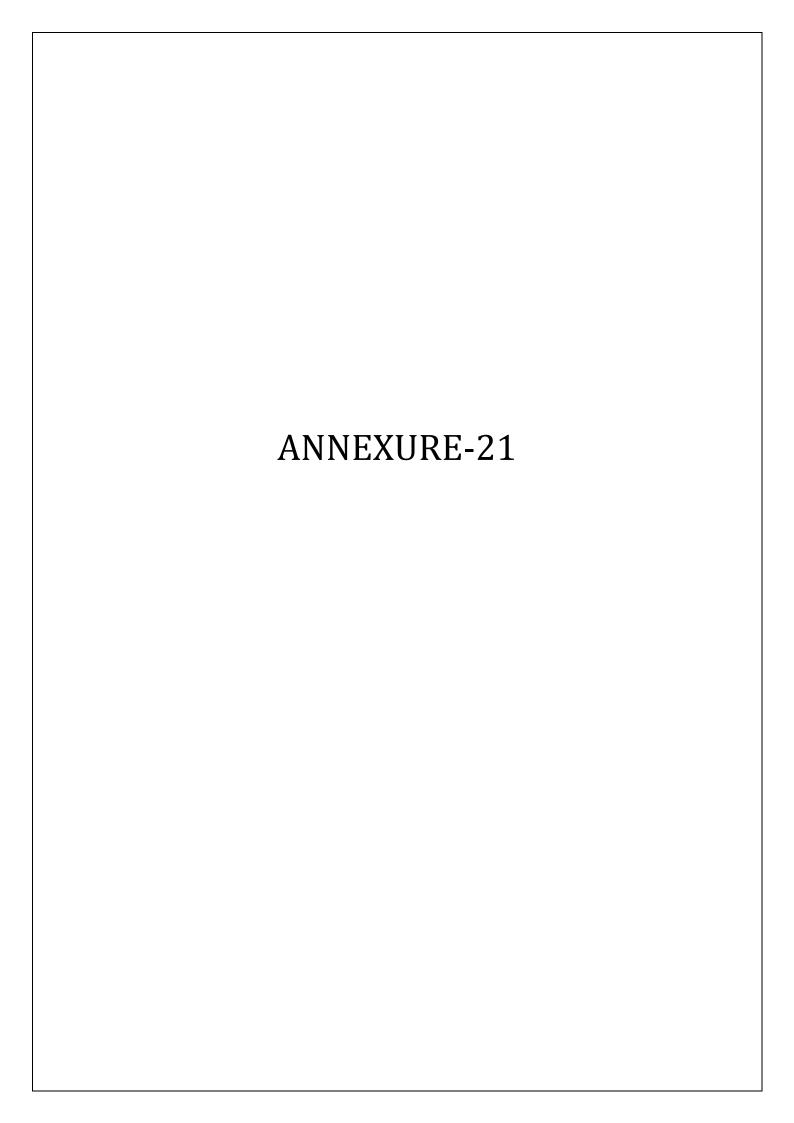
I	Bravo Sponge Iron Pvt. Limited	Purulia	Sending	Nilay Narayan Ploychem LLP	Jharkhand	Used Oil	1,108 MTA	Recycling
---	--------------------------------------	---------	---------	-------------------------------------	-----------	----------	-----------	-----------

	Part D. D	etails of Import of Ot	her Waste Import &	& Recycling	
Sr.no	Name of the Importer)	Imported from (country name)	Type of Other waste	Quantity Imported (MTA)	Quantity Recycled (MTA)

Date: 04/09/2023
Place: Purulia

DEEPAK KUMAR AGARWAL

Name of the Occupier or Operator of the disposal facility



# PROJECT DETAILS AS PER CTE/CTO APPLICATION

Name Of Occupier: DEEPAK KUMAR AGARWAL

Industry Id: WB0291697797

Industry Name: BRAVO SPONGE IRON PVT. LTD.
Industry Address: VIII-Mahuda, PO-Rukni, PS-Para,

Dist-Purulia (WB)-723145

District : Purulia
State : West Bengal
Category : RED

Industry Type: Iron & Steel (involving processing

from ore/integrated steel plants) and or Sponge Iron units

Occupier Email: cmdsipft@gmail.com

 Occupier Mobile :
 9233331111

 Application Number :
 274440

 Application Type :
 CTE

 Application Date :
 05-Nov-2020

 Approval Date :
 10-Nov-2020

Approval Date : 10-Nov-2020
Product Name : MS BILLET

Quantity: 22500 Metric Tonnes/Month

Unit:

#### RESPONSE OF PROJECT PROPONENT

Is EC Obtained ?: Yes

EC Proposal Number: IA/WB/IND/125425/2015

EC Grant Date : 2020-11-05

EC File Number: 3-11011/758/2009-IA-II I

Authorty: MoEFCC

Name of Authorized Person DEEPAK KUMAR AGARWAL

.

Designation of Authorized Director

Person:



E- Verification Completed

# RESPONSE OF THE PROJECT PROPONENT

Proposal No: IA/WB/IND/125425/2015

Registered Email Id: cmdsiph@gmail.com

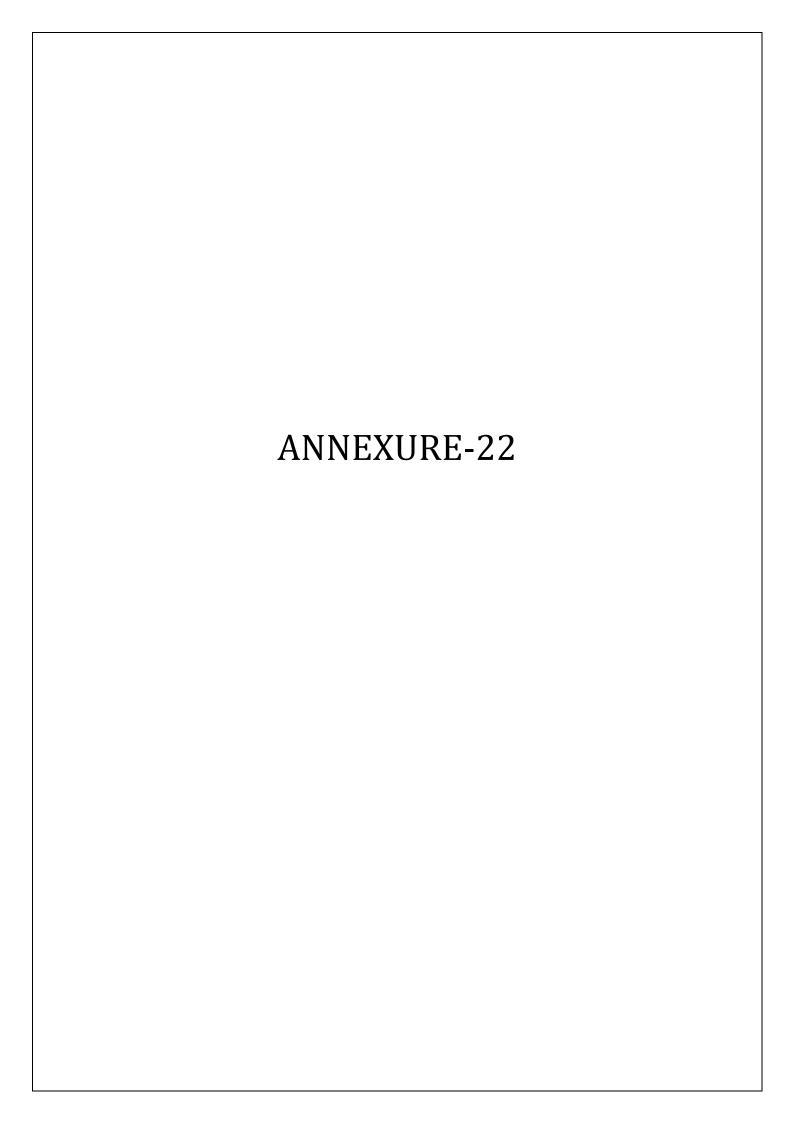
Status of Implementation of Project or Activity?: Project is operational for partial components/units envisaged in the EC

Date of CTO: 2021-12-08

Name of Authorized Person : Deepak

Designation of Authorized Person : Director











#### FORMAT NO. ENV/FM/40

#### TEST REPORT

Name of the Industry		:	Е	Bravo Sponge Iron	Pvt. Ltd.		Тур	e of Ir	ndustry	:	Stee	el & Power Unit
Address		:	V	/ill. – Mohuda. P.O.	- Rukni, P.S Para, Pui	ulia	San	Sampling Date : 17.09.203			09.203	
	- 723145				Per	Period of Analysis			17.0	9.2023 - 26.09.2023		
				EX (100 p. 100 s				Date of Issue		:	28.0	09.2023
Sampling Plar Procedure	ı &			ENV/SOP/01	Deviation from the Sampling Method and	Plar	:	No	Type of Samp	le		Surface Water
Location	ocation : Mahuda Village Pond Sample Condition :		Seal	ed	Sample ID No.		ENV	7/24/Sep./W/I				
Report No.	Report No. : ENV/24/Sep./TR(W)/I/23-24				/)/I/23-24							

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	рН	APHA 23 <sup>rd</sup> Ed., 4500 H+B : 2017		7.11
2.	Total Suspended Solids	APHA 23 <sup>rd</sup> Ed., 2540 D : 2017	mg/l	22.0
3.	Total Dissolved Solids	IS 3025 (Part 16) : 1984 : 2014	mg/l	240.0
4.	Dissolved Oxygen	APHA 23 <sup>rd</sup> Ed., 4500 – OC: 2017	mg/l	6.2
5.	COD	APHA 23 <sup>rd</sup> Ed., 5220 B/C/D: 2017	mg/l	60.0
6.	BOD [5 Day's at 20°C]	mg/l	8.0	
7.	Oil & Grease	APHA 23 <sup>rd</sup> Ed., 5520 B/D/: 2017	mg/l	<1.0
8.	Residual Chlorine	APHA 23 <sup>rd</sup> Ed., Cl-B : 2017	mg/l	<0.04
9.	Chloride	APHA 23 <sup>rd</sup> Ed., 4500 Cl-B/D : 2017	mg/l	24.05
10.	Iron	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg/l	0.18
11.	Arsenic	APHA 23 <sup>rd</sup> Ed., 3114 B : 2017	mg/l	<0.01
12.	Lead	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg/l	<0.005
13.	Mercury	APHA 23 <sup>rd</sup> Ed., 3112 B : 2017	mg/l	<0.001
14.	Copper	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg/l	0.31
15.	Zinc	APHA 23 <sup>rd</sup> Ed., 3111 B: 2017	mg/l	0.29
16.	Total Chromium	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg/l	<0.02

Remarks : a) Sample collected by Envirocheck and sent to lab for testing in sealed condition.
b) Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattackaryy

**Authorised Signatory:** 

Hand

Dr. AJOY PAUL Quality Manager

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#### FORMAT NO. ENV/FM/40

#### TEST REPORT

Name of the Industry		:	В	Bravo Sponge Iron	Pvt. Ltd.		Тур	e of Ir	ndustry	:	Stee	el & Power Unit
Address			V	ill. – Mohuda. P.O.	– Rukni, P.S. – Para, Pur	rulia	San	Sampling Date : 17.09.203			09.203	
	- 723145				Per	Period of Analysis			17.0	09.2023 - 26.09.2023		
				28 (Table				Date of Issue			28.0	09.2023
Sampling Plan Procedure	ı &		:	ENV/SOP/01	Deviation from the Sampling Method and	Plan	:	No	Type of Samp	le		Surface Water
Location	ocation : Rukmi Village Road Sample Condition :		Seal	ed	Sample ID No.		ENV	V/24/Sep./W/II				
Report No.	Report No. : ENV/24/Sep./TR(W)/II/23-24						- 10					

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	рН	APHA 23 <sup>rd</sup> Ed., 4500 H+B: 2017		7.26
2.	Total Suspended Solids	APHA 23 <sup>rd</sup> Ed., 2540 D : 2017	mg/l	21.0
3.	Total Dissolved Solids	IS 3025 (Part 16): 1984: 2014	mg/l	184.0
4.	Dissolved Oxygen	APHA 23 <sup>rd</sup> Ed., 4500 – OC : 2017	mg/l	6.4
5.	COD	APHA 23 <sup>rd</sup> Ed., 5220 B/C/D: 2017	mg/l	20.0
6.	BOD [5 Day's at 20°C]	mg/l	5.0	
7.	Oil & Grease APHA 23 <sup>rd</sup> Ed., 5520 B/D/: 2017		mg/l	<1.0
8.	Residual Chlorine	APHA 23 <sup>rd</sup> Ed., Cl-B : 2017	mg/l	<0.04
9.	Chloride	APHA 23 <sup>rd</sup> Ed., 4500 Cl-B/D : 2017	mg/l	16.80
10.	Iron	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg/l	0.09
11.	Arsenic	APHA 23rd Ed., 3114 B: 2017	mg/l	<0.01
12.	Lead	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg/l	< 0.005
13.	Mercury	APHA 23 <sup>rd</sup> Ed., 3112 B : 2017	mg/l	< 0.001
14.	Copper	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg/l	<0.04
15.	Zinc	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg/l	0.23
16.	Total Chromium	APHA 23 <sup>rd</sup> Ed., 3111 B: 2017	mg/l	< 0.02

Remarks : a) Sample collected by Envirocheck and sent to lab for testing in sealed condition.
b) Result relates only to the sample tested.

Reviewed By:

INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Indrani Blattackaryye

**Authorised Signatory:** 

Hand

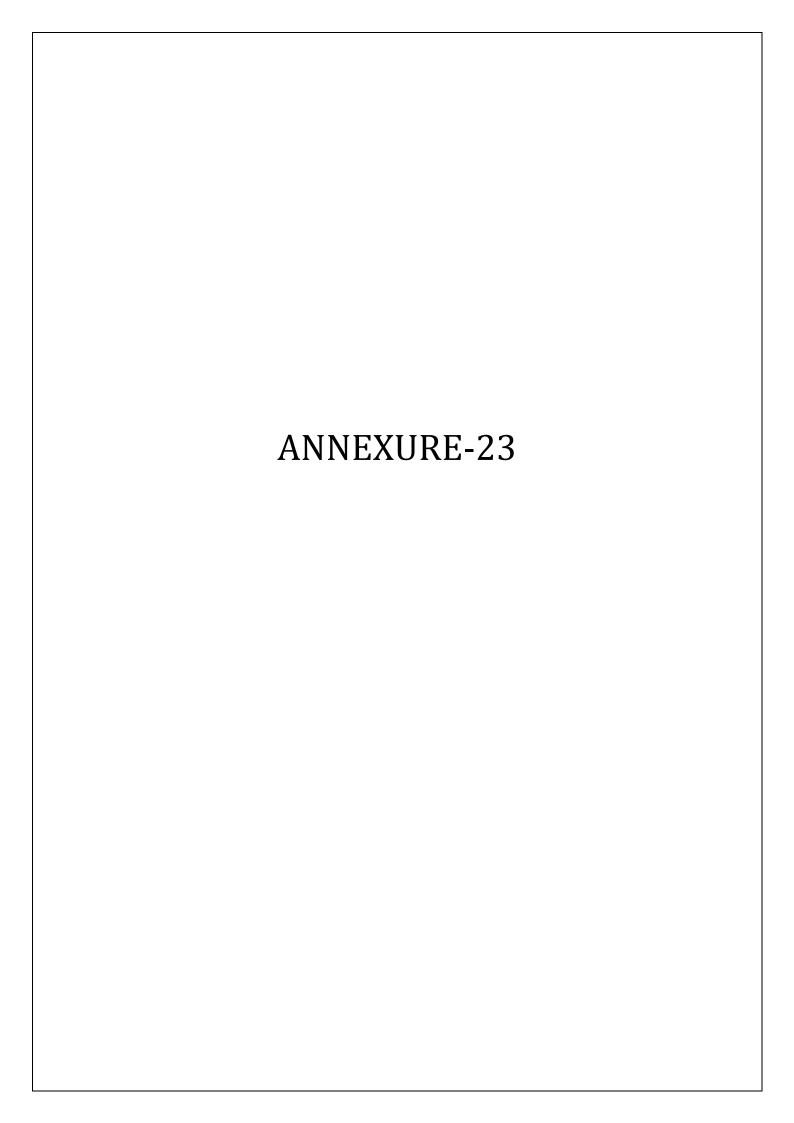
Dr. AJOY PAUL Quality Manager

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Branch Office : Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi











# TCLP REPORT

1.	Name of the Industry		Bravo Sponge Iron Pvt. Ltd.
2.	Address	:	Vill. – Mahuda, P.O. – Rukni, P.S. – Para, Purulia – 723145
3.	Date of sampling		13.09.2023
4.	Report No.		Env/399A/S/M(ii)/23-24
5.	Reporting date		21.09.2023
6.	Type of sample	·	SMS Slag
7.	Location	:	Near SMS Division

PARAMETERS (mg/lt.)					
Zn.	Cr.	<u>Cu</u>	<u>Ni</u>	<u>Pb</u>	<u>Cd</u>
3.20	1.26	3.50	1.10	0.80	<0.002

Reviewed By:

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By:

Hand

Dr. AJOY PAUL Quality Manager

<End of Report>

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