

Ref: -BSIPL/SMC/MoEFCC/OCT-2023 to MAR-2024

Date: 03.06.2024

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 (Oct-2023 to March-2024) 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 October-2023 to March-2024) of M/s Bravo Sponge Iron Private Limited, Vill- Mahuda, P.O- Rukni, 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 **Bravo Sponge Iron Pvt. Limited**

Authorized Signatory

Encl: as above



Copy to:

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)

SIX MONTHLY COMPLIANCE REPORT

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 05 th November, 2020 and F. No.: J-11011/758/2009-IA. II(I), Dated: 18 th April, 2017
Period of Compliance Report	:	October 2023 to March 2024

Environmental Clearance F. No.: J-11011/758/2009-IA-II(I) dated 05th November, 2020

S No	Conditions	Compliance Status
A. Specific conditions		
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 ₂ and NO _x 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 re-processors 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 Gobindapur village for rain water harvesting.



S No	Conditions	Compliance Status
vii.	A sum of Rs. 3.8125Cr shall be allocated to CER Activities as per list furnished and all CER Activities shall be completed within three years.	CER activities are under implementation as mentioned in 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 at Mahuda-Kashiberia & Gobindapur village 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.	Total plant area inclusive of previous & current EC is 31.73Ha out of which company has already achieved the target of 33% green belt development by plantation of 13500 plants of different indigenous species covering 5.38 Ha against 16.30 Ha area of previous EC. In the ongoing project under current EC 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 after implementation of rolling mill project.
xii.	Air cooled condensers shall be used.	Complied. Air cooled condensers are already installed.
xiii.	PM emission from the stacks shall be less than	It shall be complied with under implementation and to be



S No	Conditions	Compliance Status
	30mg/Nm ³ .	implemented projects. Existing projects complies with emission standards as stipulated in previous EC and by 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 required 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. 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. It is being/shall be adhered. 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 th November, 2020, the CTE for proposed expansion projects. CTOs for 2x0.85 MTPA Pellet Plant & 12x4000Nm ³ 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	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 technically 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.	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 on regular basis 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.	Sufficient ventilation system 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.



S No	Conditions	Compliance Status
III.	Water quality monitoring and preservation	
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 30 th May 2008; G.S.R 277 (E) dated 31 st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7 th 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 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 NABL 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 obtained new EC for expansion of existing project vide File No: J-11011/758/2009-IA-II(IND-I) dated 02/05/2024. 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.	Concreted raw material yard with garland drain has been constructed to check the water pollution due to surface run off. All such run off being collected in collection tank and reused in thickener of the pellet division. Stock piles are kept suitably covered with tarpaulin to check and prevent water contamination due to rain.
IV.	Noise monitoring and prevention	
i.	Noise quality shall be monitored as per the	It is being complied.

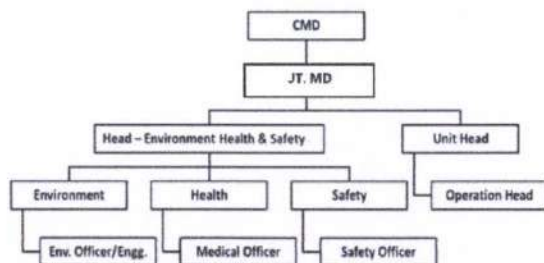


S No	Conditions	Compliance Status
	prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Latest Ambient & Work Zone Noise monitoring reports are enclosed as Annexure- 10 & 11.
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.
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	
i.	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.	Total plant area inclusive of previous & current EC is 31.73Ha out of which company has already achieved the target of 33% green belt development by plantation of 13500 plants of different indigenous species covering 5.38 Ha against 16.30 Ha area of previous EC. In the ongoing project under current EC 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. Green belt/green cover development process shall be continued as per directions and guidelines. Post plantation work for nourishment of the plants being done on regular basis.



S No	Conditions	Compliance Status
		Some photographs of plantation are attached as Annexure-3
ii.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.	It is complied. GHG report is attached as Annexure-13
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 1 st 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 at village Mahuda-Kashberia, and Gobindapur, 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 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.



S No	Conditions	Compliance Status
		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.
ii.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	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	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 http://shakambhariispat.com/environmental-orders



S No	Conditions	Compliance Status
	project proponent's website permanently.	
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied.
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.	It is being complied. Compliance status being periodically uploaded on the company website http://shakambhariispat.com/environmental-compliance
iv.	The project proponent shall monitor the criteria pollutants level namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	It is being complied. Monitoring of criteria pollutants being carried out for PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ and stack monitoring for PM, SO ₂ , and NO _x . Monitored data being displayed for public at main gate of the company and also on the company website with six monthly compliance report. 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. The environment statement (Form-V) for Financial Year 2022-23 has already been submitted and for FY 2023-24 will be submitted to WBPCB with copy to Integrated Regional Office of the MOEF&CC, Kolkata. The report is uploaded on the company's website as per direction. http://shakambhariispat.com/environmental-compliance
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.	On the basis of EC granted by Hon'ble MoEF&CC, BSIPL has obtained CTE from West Bengal Pollution Control Board (WBPCB) and after that land development work and other project related activities were started. The date of financial closer is 17.11.2020 and land land development work started w.e.f 12.11.2020. Pellet plant (2x0.85 MTPA), PGP (12x4000Nm3), 1x350 TPD DRI



S No	Conditions	Compliance Status
		with 13.9 MW CPP has been implemented and under operation after taking CTO from WBPCB. Copy of CTOs attached as Annexure-5 E-verification of the project status has been submitted on the link as asked by MoEFCC. E-verification copy attached as Annexure-20 .
viii.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Noted. The commitments made during public hearing, recommendations made in the EIA/EMP report and also that during presentation to the Expert Appraisal 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 centers and operating with qualified medical staff, safety appliances to the workers, skill development 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 Kashiberia. 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.	Noted. 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	Noted. It shall be adhered.



**Six-Monthly Compliance Report
(October 2023 to March 2024)**

M/s Bravo Sponge Iron Pvt. Limited

S No	Conditions	Compliance Status
	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: 18 th 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 .
	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
	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
	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.
	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/Nm ³ 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



Efforts shall further be made to use maximum 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 requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. ETP sludge should be disposed off scientifically.	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.
All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.	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 development 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. Mehagani, 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
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.	It is being followed. Latest Ambient Air Quality Monitoring report is attached as Annexure-6
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.	Suitable control measures have been undertaken to keep Gaseous emission levels including secondary fugitive emissions within the latest permissible limits. Latest work zone (Fugitive Emission) monitoring report is enclosed as Annexure-7
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.	It is being complied. Latest effluent, ground water & surface water analysis report is enclosed as Annexure-8, Annexure-9 & Annexure-21
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	Proper handling, storage, utilization and disposal of solid waste being done.



of solid / hazardous waste shall be submitted to the Ministry's Regional Office, SPCB or CPCB.	Analysis of toxic metal content in the solid waste being periodically carried out by approved agency. The monitoring report is enclosed as Annexure-22
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.
Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office.	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
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.
10-15 m wide green belt should be developed all 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 the CPCB guidelines. The complete plantation should be completed in 3 years.	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.
All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.	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.



An amount equal to Rs. 400.87 Lakhs, shall 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 project proponent shall be implemented. Action taken report in this regard shall be submitted to the Ministry's Regional Office.	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.
The Company shall submit within three 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 issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.	It is compiled and already submitted. BSIPL has implemented standard operating procedure to look into any infringement / deviation/violation of environmental or forest 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.
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.
The project proponent shall provide for LED lights in their offices and residential areas.	Complied.
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.	It is being complied.
B-GENERAL CONDITIONS:	
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



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.
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 ₁₀ , PM _{2.5} , SO ₂ and NO _x 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 Bhubaneswar 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 ₁₀ , PM _{2.5} , SO ₂ , NO ₂ and stack monitoring report is enclosed in Annexure-6 & Annexure-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
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
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 Annexure-16
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.
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	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)



programmes, educational programmes, drinking water supply and health care etc.	and books, pencil box, water bottle etc.) of nearby villages, and contributing towards social causes etc. Drinking water supply to villagers, primary health center at village Mahuda-Mashiberia and Gobindapur village, pond development for rain water harvesting etc. A primary school with study classes from standard 1 to 5 class has been started in the village Kashberia. (Annexure-17).
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.
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.
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. http://shakambhariispat.com/environmental-compliance
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)	Six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data



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.	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
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 (Form-V) for Financial Year 2022-23 has already been submitted and for FY 2023-24 will be submitted to WBPCB with copy to Integrated Regional Office of the MOEF&CC, Kolkata. The report is uploaded on the company's website as per direction.
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.
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.	Financial closure as well as date of start of land development work has already been informed.



Annexure- 1

FORM 10
(See rule 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	BRABO SPONGE IRON PVT LTD Vill-Mohuda, PO-Rakea, PS-Para, Dist- Purulia, West Bengal, Pin-723145 Email-bravospunge15@gmail.com
2	Sender's authorisation No.	252/23 (H40)-3645/2019
3	Manifest Document No.	9212490128 dt.02.04.2024
4	Transporter's name and address (including Phone No. and e-mail)	C
5	Type of vehicle	Tanker
6	Transporter's registration No.	
7	Vehicle registration No.	WB917145
8	Receiver's name and mailing address (including Phone No. and e-mail)	CHOUDHARY HYDRO CARBON PVT LTD, Jalan Industrial Complex, PO- Begri, PS-Domjur, Howrah-711411, West Bengal. (M)-9339740130
9	Receiver's authorisation No.	CG 125025 MEMO NO 16/11-PCB-HOW-367-2005
10	Waste description	TARRY RESIDUE FROM PGP PLANT
11	Total quantity No. of Containers	20.230 MT ONE TANKER
12	Physical form	SEMI LIQUID
13	Special handling instructions and additional information	USE PPEs
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
Name and stamp:		Signature: Month Day Year 02 04 2024
15	Transporter acknowledgement of receipt of Wastes	
Name and stamp		Signature: Month Day Year 02 04 2024
16	Receiver's certification for receipt of hazardous and other waste	
Name and stamp		Signature: Month Day Year 02 04 2024

Bravo Sponge Iron Pvt. Ltd.

Authorized Signatory

FORM 10
[See rule 10 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE

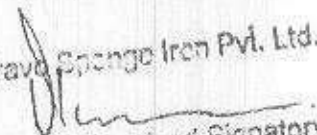
1	Sender's name and mailing address (including Phone No. and e-mail)	BRAVO SPONGE IRON PVT LTD Vill Mohuda, PO-Rukm, PS-Para, Dist- Purulia, West Bengal, Pin-723145 Email: bravaspongs15@gmail.com		
2	Sender's authorisation No.	252/25(HD)-3675/2019 9223029007 dt. 04-03-2021		
3	Manifest Document No.			
4	Transporter's name and address (including Phone No. and e-mail)			
5	Type of vehicle	Tanker		
6	Transporter's registration No.	WBTC7049		
7	Vehicle registration No.	CHOUHARY HYDRO CARBON PVT LTD, Jalan Industrial Complex, PO- Begn, PS-Dumur, Howrah-711411, West Bengal, (M)-9339740130		
8	Receiver's name and mailing address (including Phone No. and e-mail)			
9	Receiver's authorisation No.	CO 125025 MEMO No 16/H-PCB-HQW-367-2005		
10	Waste description	24 410 MT		
11	Total quantity No. of Containers	ONE TANKER		
12	Physical form	SEMI LIQUID		
13	Special handling instructions and additional information			
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations.		
Name and stamp:		Signature:	Month	Day
			04	03
15. Transporter acknowledgement of receipt of Wastes		Signature:	Month	Day
Name and stamp:				
16. Receiver's certification for receipt of hazardous and other waste		Signature:	Month	Day
Name and stamp:			04	03

Bravo Sponge Iron Pvt. Ltd.
Authorized Signatory

FORM 10
(Serials 19 (1))

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1	Sender's name and mailing address (including Phone No. and e-mail)	BRAVO SPONGE IRON PVT. LTD. Vill. Mohuda, PO. Rudra, PS. Para, Dist. Purba, West Bengal, Pin-723145 E-mail: bravosponge15@gmail.com			
2	Sender's authorisation No.	252/25(HW)-3675/2019 9228019684 dt. 29-01-2019			
3	Manifest Document No.				
4	Transporter's name and address (including Phone No. and e-mail)				
5	Type of vehicle	Tanker			
6	Transporter's registration No.	WBHC 7049			
7	Vehicle registration No.				
8	Receiver's name and mailing address (including Phone No. and e-mail)	CHOUDHARY HYDRO CARBON PVT LTD, Jalan Industrial Complex, PO- Begri, PS-Domjur, Howrah-711411, West Bengal, (M)-9339740130			
9	Receiver's authorisation No.	CO125025 Memo No 16/11-PLB-HOW-3673005			
10	Waste description	24.620 MT			
11	Total quantity No. of Containers	ONE TANKER			
12	Physical form	SEMI LIQUID			
13	Special handling instructions and additional information				
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labelled, and are in all respects in proper conditions for transport by road according to applicable national government regulations			
Name and stamp.		Signature:	Month	Day	Year
			02	02	2019
15	Transporter acknowledgement of receipt of Wastes				
Name and stamp.		Signature:	Month	Day	Year
16	Receiver's certification for receipt of hazardous and other waste				
Name and stamp		Signature:	Month	Day	Year
			02	02	2019

Bravo Sponge Iron Pvt. Ltd.

Authorized Signatory

Annexure -2

PHOTOGRAPHS OF MAIN GATE AND OTHER SIDE





Annexure -3











Annexure -4

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 – 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/I
			Report No.	:	ENV/03/March/TR(A)/I/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

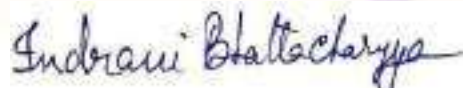
Stack Attached to	:	AFBC Boiler
Shape of Stack	:	Circular
		Height of Stack (mtr.) (from G. L.) : 45.0
Materials of Construction	:	M.S.
		Stack I.D. at sampling point (mtr.) : 2.20
Capacity	:	20 TPH
		Height of sampling port (mtr.) (from G.L.) : 16.0
Emission Due to	:	Combustion of Coal & Dolochar
Fuel Used	:	Coal & Dolochar
		Permanent Platform & Ladder : Yes
Working Fuel Consumption	:	Coal – 110 TPD & Dolochar – 130 TPD
Pollution Control Device	:	E.S.P with W.H.R.B

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS : 11255 (Part 1)	: 138.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS : 11255 (Part 3)	: 11.93
4.	Quantity of Gas flow	Nm ³ /hr.	IS : 11255 (Part III)	: 115035.40
5.	Concentration of SO ₂ (at 6% O ₂)	mg/Nm ³	IS 11255 (Part 2) : 2019	: 86.50
6.	Concentration of NO _x (at 6% O ₂)	mg/Nm ³	IS 11255 (Part 7) : 2017 / ASTM D 1608-98, Sec. 11 (Vol. 11.07) : 2017	: 48.20
7.	Concentration of CO ₂	% (v/v)	IS 13270 : 2019	: 7.4
8.	Concentration of O ₂	% (v/v)	EPA Method 3 : 2017	: 10.6
9.	Concentration of CO	% (v/v)	IS 13270 : 2019	: <1.0
	a) Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11	: 16.99
	b) Concentration of Particulate Matter (at 6% CO ₂)	mg/Nm ³	(Vol.11.07) : 2017	: 24.50

Remarks : Result relates only to the sample tested.

Reviewed By :


INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :


Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/II
			Report No.	:	ENV/03/March/TR(A)/II/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

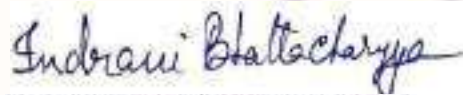
Stack Attached to	:	Rotary Kiln (No. 1 & 2) attached with common stack
Shape of Stack	:	Circular
		Height of Stack (mtr.) (from G. L.) : 30.0
Materials of Construction	:	M.S.
		Stack I.D. at sampling point (mtr.) : 1.9
Capacity	:	No.1-100 TPD & No.2-95TPD
		Height of sampling port (mtr.) (from G.L.) : 14.0
Emission Due to	:	Oxidation of Coal & Reduction of Fe-Ore
Fuel Used	:	Coal
		Permanent Platform & Ladder : Yes
Working Fuel Consumption	:	5.12 MT/hr. (each Kiln)
Pollution Control Device	:	E.S.P with W.H.R.B

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 162.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 10.55
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 71256.67
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 112.0
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 11.0
7.	Concentration of CO	% (v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 11% CO ₂)	mg/Nm ³	IS 11255 (Part - 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11	: 37.04
	b) Concentration of Particulate Matter (at 12% CO ₂)	mg/Nm ³	(Vol.11.07) : 2017	: 40.40

Remarks : Result relates only to the sample tested.

Reviewed By :


INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :


Dr. AJAY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/III
			Report No.	:	ENV/03/March/TR(A)/III/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln (No. 3 & 4) attached with common stack
Shape of Stack	:	Circular
		Height of Stack (mtr.) (from G. L.) : 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
Fuel Used	:	Coal
		Permanent Platform & Ladder : Yes
Working Fuel Consumption	:	5.12 MT/hr. (each Kiln)
Pollution Control Device	:	E.S.P with W.H.R.B

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 158.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 12.11
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 74199.58
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 130.50
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 11.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 11.8% CO ₂)	mg/Nm ³	IS 11255 (Part - 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11	: 28.59
	b) Concentration of Particulate Matter (at 12% CO ₂)	mg/Nm ³	(Vol.11.07) : 2017	: 29.07

Remarks :

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA

Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul

Dr. AJOY PAUL

Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 – 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/IV
			Report No.	:	ENV/03/March/TR(A)/IV/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

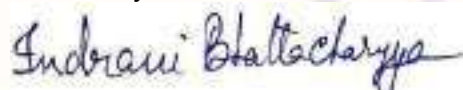
Stack Attached to	:	Rotary Kiln – 350 TPD
Shape of Stack	:	Circular
		Height of Stack (mtr.) (from G. L.) : 45.0
Materials of Construction	:	RCC
		Stack I.D. at sampling point (mtr.) : 2.0
Capacity	:	350 TPD
		Height of sampling port (mtr.) (from G.L.) : --
Emission Due to	:	Combustion of Coal & Reduction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

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 204.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 12.74
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 86925.19
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 121.84
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 12.2
7.	Concentration of CO	% (v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 12.2% CO ₂)	mg/Nm ³	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11	: 31.32
	b) Concentration of Particulate Matter (at 12% CO ₂)	mg/Nm ³	(Vol.11.07) : 2017	: 30.80

Remarks : Result relates only to the sample tested.

Reviewed By :


INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :


Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/V
			Report No.	:	ENV/03/March/TR(A)/V/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

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

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 68.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 9.50
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 5823.33
5.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	: 43.20

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya
INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul
Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/VI
			Report No.	:	ENV/03/March/TR(A)/VI/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Hood Over 2 nos. Induction Furnace (attached with 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.
Fuel Used	:	Electricity Operated
		Permanent Platform & Ladder : Yes
Working Fuel Consumption	:	Nil
Pollution Control Device	:	Bag Filter

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	64.0
2.	Barometric Pressure	mm of Hg.	--	755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	9.45
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	8438.91
5.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	34.51

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya
INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul
Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 – 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/VII
			Report No.	:	ENV/03/March/TR(A)/VII/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Fe-Ore Pellet Formation Stack (No.1)
Shape of Stack	:	Circular
		Height of Stack (mtr.) (from G. L.) : 50.0
Materials of Construction	:	RCC
		Stack I.D. at sampling point (mtr.) : 3.0
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 & Ladder : Yes
Working Fuel Consumption	:	2.78 MT/hr.
Pollution Control Device	:	E.S.P

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 115.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 11.47
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 222452.35
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 17.06
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 9.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	: 26.50

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul

Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/VIII
			Report No.	:	ENV/03/March/TR(A)/VIII/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Fe-Ore Pellet Formation Stack (No.2)
Shape of Stack	:	Circular
		Height of Stack (mtr.) (from G. L.) : 50.0
Materials of Construction	:	RCC
		Stack I.D. at sampling point (mtr.) : 3.0
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 & Ladder : Yes
Working Fuel Consumption	:	2.78 MT/hr.
Pollution Control Device	:	E.S.P

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 125.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 11.63
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 219847.43
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 15.30
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 10.0
7.	Concentration of CO	% (v/v)	IS 13270 1992 RA 2003	: <1.0
8.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	: 23.50

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya
INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul
Dr. AJOY PAUL
Quality Manager

Annexure -5

"Expansion"
WEST BENGAL POLLUTION CONTROL BOARD

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



Consent Letter Number: CO/32107

Memo Number: 294-WPBA/Red(P&C)/cont(135)/54 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 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 Pvt. Ltd.

(Address of Regd. office/Head Office/City Office)

(hereinafter referred to as Applicant) for its unit located at Vill: Mahuda, P.O. - Rukni,

P.S. - Para, Dist - Purulia, Pin - 723145

(Detailed address of the manufacturing unit)

for a period from Date of issue 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 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

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

Harshi
08/12/21
Sr. Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell



ANNEXURE

Consent to M/s. Brave Sponge Iron Pvt. Ltd.
 for its unit at Villi Mahuda, P.O. - Rukni, P.S. - Pura, 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 Nm ³ /hr.
03		
04		
05		
06		
07		
08		
09		
10		
11		
12		

02. The Applicant shall remain responsible for quantity and quality of liquid effluent and air emissions.
03. Daily discharge of industrial liquid effluent shall not exceed recycled KL.
04. Daily discharge of domestic liquid effluent shall not exceed 4 KL.
05. Daily discharge of mixed (industrial & domestic) liquid effluent shall not exceed Nil KL.
06. The Applicant shall discharge liquid effluent to Septic tank after treatment in STP (place of discharge) through 01 (one) 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. Engr. / Env. Engr. / Asst. Env. Engr.)

Hardi
08/12/21
 Sr. Environmental Engineer
 W. B. Pollution Control Board (Continued.....)
 Operation & Execution Cell

20132107

(3)

Consent to M/s. Bravo Sponge Iron Pvt. Ltd.
for its unit at Villi Mahuda, P.O. - Buxari, P.S. - Para, Dist - Purnia,
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: 150 mg/l.	
		Biochemical Oxygen Demand (3day at 27°C)	Not to exceed: 30 mg/l.	
		Chemical Oxygen Demand	Not to exceed: 250 mg/l.	
		Oil & Grease	Not to exceed: 10 mg/l.	
		(Industrial effluent to be treated in ETP and recycled to maintain Zero liquid discharge as stipulated in Ec conditions.)		

09. The Applicant falls in the Red Category of the Water (Prevention 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.

10. **Daily water consumption** for the following purposes should not exceed:

- | | | | |
|---|---|-----|----|
| <ul style="list-style-type: none"> Industrial cooling, spraying in mine pits and boiler feed water
(Water used for gardening should be included in this category of use) | → | 745 | KL |
| <ul style="list-style-type: none"> Domestic purpose | → | 5 | KL |
| <ul style="list-style-type: none"> Processing whereby water gets polluted and the pollutants are easily biodegradable | → | — | KL |
| <ul style="list-style-type: none"> Processing whereby water gets polluted and the pollutants are not easily biodegradable | → | — | 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. Envr. Engr. / Envr. Engr. / Asst. Envr. Engr.)

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

Consent to M/s. Gnavo Spence Iron Pvt. Ltd.

for its unit at Vill: Mahuda, P.O: Rukni, P.S: Parag, Dist: Pauri,

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 facilitate 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 G.L. (in mts.)	Stack attached to (sources and control system, if any):	Volume Nm ³ /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed					Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)				
S-1	50m	Pellet Plant (1x0.85MTPA) with bag filter			30	-				Half Yearly
S-2	42m	PCI Unit (6500 MT/month) with bag filter			30	-				Half Yearly
S-3	16.5m	01x500KVA D.G. Set			150	1				Yearly
S-4	17m	01x625KVA D.G. Set			150	1				Yearly
S-5										
S-6										
S-7										
S-8										
S-9										
S-10										

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

Hardi
08/12/25
Sr. Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

Continued.....

C0132107

(5)

Consent to M/s. Bravo Sponge Iron Pvt. Ltd.
 for its unit at Vill: Mahuda, P.O. - Rukni, P.S. - Para, Dist - Purulia,
Pin - 723165

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	—	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/month	—	reused in pellet plant
Tare from PGP	297 MT/month	—	reused as fuel BRF / 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) L_{eq}
Day Time (06 a.m. to 09 ⁴⁵ p.m.)	75
Night Time (09 ⁴⁵ 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.)

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

Continued.....

Consent to M/s. Brava Sponge Foam Pvt. Ltd.
 for its unit at Vill. Mahuda, P.O. - Rukni, P.S. - Pana, Dist - Purulia,
Pin - 723145

24. The *Applicant* shall maintain a separate register showing consumption of chemicals used in pollution control systems.
25. The *Applicant* shall get the samples of hazardous wastes/leachates analysed at least once in _____ 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 *Applicant* 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-Engg./ Sr. Env. Engr./ Env. Engr. (Poll. & W. Engr.))

Hardi
 08/12/21
 Environmental Engineer
 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.

1. The unit shall abide by all other condition as mentioned in Environmental Clearance (EC) issued vide no. J-11011/758/2009-1A-II(1) dated 05.11.2020 and NOC(NO164516) issued vide memo no.349-2N-117/2007 (E)-PI 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.
5. The unit should install Continuous Ambient Air Quality Station(CAAQS) within 31st 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 16th 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.
9. This consent to Operate is valid for operation of Pellet Plant (1x0.85 MTPA) & Producer Gas Plant (12x4000 Nm³/hr).


08/12/21
Sr. Environmental Engineer
West Bengal Pollution Control Board
Sr. 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 : CO131807

Memo Number : 894 - WPCB/Red (Pol)/Cont(135)/04
Part II

Date : 23/12/2021

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 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 P.L. Ltd.

WEST BENGAL

(Address of Regd. office/Head/Office/City Office)

(hereinafter referred to as Applicant) for its unit located at vill - Mahuda, P.O. - Rukni,

P.S. - Para, Dist - Purulia, Pin - 723145

(Detailed address of the manufacturing unit)

for a period from 01.01.2022 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 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

[Signature] 23.12.2021

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



ANNEXURE

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

for its unit at vill - 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	Sponge Iron	11500 Ton/month
02	M.S. Billet	7200 Ton/month
03	Captive Power	10 MW
04		
05		
06		
07		
08		
09		
10		
11		
12		

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

03. Daily discharge of industrial liquid effluent shall not exceed Nil KL.

04. Daily discharge of domestic liquid effluent shall not exceed 1'5 KL.

05. Daily discharge of mixed (industrial & domestic) liquid effluent shall not exceed Nil KL.

06. The Applicant shall discharge liquid effluent to septic tank to soak pit (place of discharge) through 01 (one) 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.

23.12.2021

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

Continued.....

Consent to M/s. Bravo Sponge Iron Pvt. Ltd. ⁽³⁾
for its unit at vill - Mahenda, P.O. - Reukri, P.S. - Parnali - Purulia
Pin - 723195

Table-I

[illegible]

09. The Applicant falls in the Category of the Water (Prevention 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.

10. **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) | → | 520.0 | KL |
| ● Domestic purpose | → | 15.0 | KL |
| ● Processing whereby water gets polluted and the pollutants are easily biodegradable | → | nil | KL |
| ● Processing whereby water gets polluted and the pollutants are not easily biodegradable | → | 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.)

Continued.....

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

for its unit at vill - Mahuda, P.O. - Rukni, 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 facilitate 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 No.	Stack height from G.L., (in mts.)	Stack attached to (sources and control system, if any):	Volume Nm ³ /hr	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)			
S-1									
S-2									
S-3									
S-4									
S-5									
S-6									
S-7									
S-8									
S-9									
S-10									

K. Manoj / 23.12.2021
 (Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Continued.....

(5)

Consent to M/s. Bravo Sponge Iron Pvt. 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	Coal	11600 Ton/month	DRI Kiln (1, 2, 3 & 4)
02	Coal fines	1100 Ton/month	AFBC Boiler
03	HSD	-	D.G. Set (2x500 kVA)
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
Dolochar	2350 Ton/month	-	To be used in AFBC Boiler.
FLY Ash	3200 Ton/month	-	Brick/cement manufacturing & land filling.
APCD Dust	600 Ton/month	-	To be used in Pellet Plant
EF Slag	470 Ton/month	-	To be used in land filling & stone

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_{eq}
Day Time (06 a.m. to 10 p.m.)	65
Night Time (10 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

[Signature] 23.12.2021
 (Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Continued.....

Consent to M/s. Bravo Sponge Iron 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.
25. The Applicant shall get the samples of hazardous wastes/leachates analysed at least once in 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 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 quantity 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 ¹²⁰~~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.

1. This Consent Letter may be revoked at any time on the ground of valid public complaint regarding Additional Conditions water, Air or Noise Pollution against your unit or in case of any Environment Hazards created by your unit.
 2. Conditions mentioned in the Environmental clearance issued by MOEF & CC vide no. J11011/758/2009-1A (1) dated 18/04/2012 (Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.) must be complied with.

[Signature] 23.12.2022

Annexure-I

Annexure to Consent Letter Number : CO/31807

Additional conditions issued to M/s. Bravo Sponge Iron Pvt Ltd. located at Vill : Mahuda , P.O. Rukni, P.S. Para , Dist : Purulia , Pin : 723145.

Stack No.	Stack height from G.L. (in mtr)	Stack attached to (sources and control system, if any)	Volume (Nm ³ /hr)	Velocity of gas emission (m/sec)	Concentration of parameters not to exceed				Frequency of emission sampling
					PM (mg/Nm ³)	CO (% v/v)	-	-	
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	-	-	100	1.0	-	-	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	-	-	Quarterly
4	30.0	Cooler Discharge (Common with DRI Kiln 1 & 2 provided with Bag filter and stack)	-	-	100	-	-	-	Quarterly
5	30.0	Cooler Discharge (Common with DRI Kiln 3 & 4 provided with Bag filter and stack)	-	-	50	-	-	-	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)	-	-	50	-	-	-	Quarterly
8	30.0	Intermediate Bin (Common with DRI Kiln 1,2,3 & 4) provided with Bag filter and separate stack	-	-	50	-	-	-	Quarterly
9	30.0	Coal screening (Common with DRI Kiln 1,2,3 & 4) provided with Bag filter and separate stack	-	-	50	-	-	-	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 Tons/Heat each) provided with individual suction hood & spark arrestor followed by common Bag filter and stack for all Induction Furnaces & SEAFs.	-	-	50	-	-	-	Quarterly
12	9.0	1 x 500 KVA D.G. Set	-	-	150	1.0	-	-	Yearly
13	9.0	1 x 500 KVA D.G. Set	-	-	150	1.0	-	-	Yearly

[Signature] 23.12.2021
 Senior Environmental Engineer
 West Bengal Pollution Control Board
 Asansol Regional Office



WEST BENGAL POLLUTION CONTROL BOARD

(Department of Environment, Government of West Bengal)

Asansol Regional Office

Kalyanpur Satellite Township Project (K.S.T.P)

Dr. B.C. Roy Road, Asansol, P.O.- Dakshin Dhadka,

Asansol - 713 302, Dist- Paschim Bardhaman.

Phone : (0341) 2999280/2999281

Memo No. **347**- WPBA/Red(Pri)/Cont(135)/04(Part II)

Date: **06/05/2022**

To

M/s. Bravo Sponge Iron Pvt Ltd

Vill- Mahuda, P.O. Rukni, P.S. Para,

Dist- Purulia, Pin- 723145.

Subject : Amendment of the 'Consent to Operate' no. CO131807 issued vide memo no. 894-WPBA/Red(Pri)/Cont(135)/04(Part II) dated 23/12/2021.

Reference : Your letter dated 02/05/2022.

Sir,

With reference to the above this is to inform you that the 'Consent to Operate' no. CO131807 issued vide memo no. 894-WPBA/Red(Pri)/Cont(135)/04(Part II) dated 23/12/2021 is hereby amended as follows :

In Annexure- I of the said Consent to Operate under Stack No. 4 & 5 of attached to "Cooler Discharge (common with DRI Kiln 1 & 2 provided with Bag filter and stack)" should be read as "Cooler Discharge (common with DRI Kiln 1, 2, 3 & 4 provided with Bag filter and stack)".

In Annexure - I of the said Consent to Operate under Stack No. 9 of attached to "Coal screening (Common with DRI Kiln 1, 2, 3 & 4) provided with Bag filter and separate stack" should be read as "Coal screening (Common with DRI Kiln 1, 2, 3 & 4) provided with Bag filter".

In Annexure - I of the said Consent to Operate under Stack No. 10 of attached to "Iron Ore screening (Common with DRI Kiln 1, 2, 3 & 4) provided with Bag filter and separate stack" should be read as "Coal screening (Common with DRI Kiln 1, 2, 3 & 4) provided with Bag filter".

In Annexure - I of the said Consent to Operate under Stack No. 11 of attached to "Induction Furnaces (2 x 12 Ton/Heat each) provided with individual suction hood & spark arrestor followed by common Bag filter and stack for all Induction Furnaces & SEAFs" should be read as "Induction Furnaces (2 x 15 Ton/Heat each) provided with individual suction hood & spark arrestor followed by common Bag filter".

All other terms and conditions as mentioned in the "Consent to Operate" letter number **CO131807** dated 23/12/2021 will remain unchanged.

This letter may be treated as annexure of the aforesaid "Consent to Operate" letter (CO131807).

Yours faithfully

Senior Environmental Engineer
Asansol Regional Office.

Application No. 2813629
WEST BENGAL POLLUTION CONTROL BOARD

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



"Expansion"

Consent Letter Number : CO141013

Memo Number : 491-WPBA/Red(PM)/cont-(135)/04 part-II

Date : 22/12/2022

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 Pvt. Ltd.

(Address of Regd. office/Head/Office/City Office)

(hereinafter referred to as Applicant) for its unit located at Vill - Mahuda, P.O. - Rukni,
P.S. - Para, Dist. - Purulia, Pin - 723145

(Detailed address of the manufacturing unit)

for a period from date of issue 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 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

22/12/2022
(Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst. Engr.)

W. B. Pollution Control Board
Operation & Execution Cell



(2)

ANNEXURE

Consent to M/s. Bravo Sponge Iron Pvt. Ltd.
 for its unit at Vill.- 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	Sponge Iron	350 Metric Tonnes / Day
02	Iron Ore Pallet	0.85 MTPA
03	Captive Power	13.9 MW
04		
05		
06		
07		
08		
09		
10		
11		
12		

02. The Applicant shall remain responsible for quantity and quality of liquid effluent and air emissions.
03. Daily discharge of industrial liquid effluent shall not exceed KL.
04. Daily discharge of domestic liquid effluent shall not exceed KL.
05. Daily discharge of mixed (industrial & domestic) liquid effluent shall not exceed KL.
06. The Applicant shall discharge liquid effluent to Septic tank/ Soak Pit (place of discharge)
 through 01 (one) 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.

R. B. Chatterjee
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

(4)

Consent to M/s. Bravo Sponge Iron Pvt. Ltd.for its unit at Vill.- Mahuda, P.O.- Rukni, 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 facilitate 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 G.L. (in mts.)	Stack attached to (sources and control system, if any):	Volume $\text{Nm}^3/\text{hr.}$	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm^3)	CO $(\% \text{v/v})$			
S-1									
S-2									
S-3									
S-4									
S-5									
S-6									
S-7									
S-8									
S-9									
S-10									

Rakshita 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

CO141013

(5)

Consent to M/s. Bravo Sponge Iron Pvt. 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	—	D.G. Set
02	Coal	13247 Ton/Month	DRI Kiln & Pellet Plant
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
Dolachan	2100 Metric Tonnes/Month	—	Used in CPP
Fly Ash	1155 Metric Tonnes/Month	Brick/element manufacturing units and abandoned mines and road filling	
Apco dust	1050 Metric Tonnes/Month	To be used 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) L_{eq}
Day Time (06 a.m. to 10 p.m.)	65
Night Time (10 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.

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

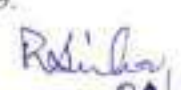
Posilla 29/12/2022
 Environmental Engineer
 W. B. Pollution Control Board
 Operation & Execution Cell

Consent to M/s. Brava Sponge Iron 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.
25. The *Applicant* shall get the samples of hazardous wastes/leachates analysed at least once in 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 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 - II


 (Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst. Env. Engr.)
 Environmental Engineer
 W. B. Pollution Control Board
 Operation & Execution Cell

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

Annexure – I

Stack No.	Stack height from G.L. (in mtr.)	Stack attached to (sources and control system, if any)	Volume: Nm^3/hr	Velocity of gas emission m/sec	Concentration of parameters not to exceed				Frequency of emission sampling
					PM (mg/Nm^3)	CO $(\% \text{ v/v})$			
1	72.0 m	DRI Kiln of capacity 350TPD- 1(one) no. with WTRB-1(one) no. provided with 4- field ESP and separate stack	-	-	50	-			Quarterly
2	30.0 m	Cooler Discharge & Intermediate Bin provided with bag filter and separate stack	-	-	50	-			Quarterly
3	30.0 m	Day Bin & Iron Circuit. provided with bag filter and separate stack	-	-	50	-			Quarterly
4	30.0 m	Coal circuit provided with bag filter and separate stack	-	-	50	-			Quarterly
5	30.0 m	Product Storage Bunker provided with bag filter and separate stack	-	-	50	-			Quarterly

Polindia
 22/12/2022

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

Stack No.	Stack height from G.L. (in mts.)	Stack attached to (sources and control system, if any)	Volume Nm^3/hr	Velocity of gas emission m/sec	Concentration of parameters not to exceed				Frequency of emission sampling
					PM (mg/Nm^3)	CO $(\% \text{ v/v})$			
6	50.0 m	01x01.85 MTPA Pellet Plant provided with 4-field ESP and separate stack	-	-	50	-			Quarterly
7	12.5 m	D.G. Set - 01x1010 KVA	-	-	150	-			Yearly
8	14.0 m	D.G. Set - 01x1500 KVA	-	-	150	-			Yearly

Rabindra 22/12/2022
 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

1. 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.
2. 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.
4. 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.

Robindro 22/12/2022

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

Annexure -6

TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024 - 20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Ambient Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/IX
			Report No.	:	ENV/03/March/TR(A)/IX/23-24

A] GENERAL INFORMATION

1. Location of Sampling : Near Railway Siding Area (North Side)
2. Duration of Sampling : 24 hrs. (09:00 a.m. - 09:00 a.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 21.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Clear

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5}	µg/m ³	IS 5182 (Part 24) : 2019	58.77
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2019	88.20
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017& ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	8.26
4.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	32.56
5.	Concentration of CO	mg/m ³	IS 5182 (Part 10) : 2019	0.16
6.	Concentration of Pb	µg/m ³	IS 5182 (Part 22) : 2019	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m ³	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 ₆ H ₆)	µg/m ³	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74
9.	Ozone (O ₃)	µg/m ³	IS 5182 (Part-9) : 2019	30.0
10.	Ammonia (NH ₃)	µg/m ³	IS 5182 (Part 25) : 2018	<4.18
11.	Nickel (Ni)	ng/m ³	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m ³	EPA IO 3.2, 1999& APHA 23 rd Ed 3114C : 2017	<0.01

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul

Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024 - 20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Ambient Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/X
			Report No.	:	ENV/03/March/TR(A)/X/23-24

A] GENERAL INFORMATION

1. Location of Sampling : Near Main Gate (Western Side)
2. Duration of Sampling : 24 hrs. (10:00 a.m. - 10:00 a.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 20.0
2. Average Relative Humidity (%) : 68.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Clear

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5}	µg/m ³	IS 5182 (Part 24) : 2019	55.46
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2019	82.67
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017& ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	9.20
4.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	33.57
5.	Concentration of CO	mg/m ³	IS 5182 (Part 10) : 2019	0.18
6.	Concentration of Pb	µg/m ³	IS 5182 (Part 22) : 2019	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m ³	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 ₆ H ₆)	µg/m ³	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74
9.	Ozone (O ₃)	µg/m ³	IS 5182 (Part-9) : 2019	36.0
10.	Ammonia (NH ₃)	µg/m ³	IS 5182 (Part 25) : 2018	<4.18
11.	Nickel (Ni)	ng/m ³	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m ³	EPA IO 3.2, 1999& APHA 23 rd Ed 3114C : 2017	<0.01

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul

Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024 - 20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Ambient Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XI
			Report No.	:	ENV/03/March/TR(A)/XI/23-24

A] GENERAL INFORMATION

1. Location of Sampling : Mahuda Village (Southern Side) 0.5 km. from Plant
2. Duration of Sampling : 24 hrs. (10:30 a.m. - 10:30 a.m.)

B] METEOROLOGICAL INFORMATION

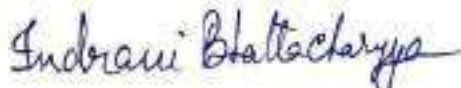
1. Average Temperature (°C) : 21.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Clear

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5}	µg/m ³	IS 5182 (Part 24) : 2019	48.21
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2019	74.48
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017& ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	6.61
4.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	26.20
5.	Concentration of CO	mg/m ³	IS 5182 (Part 10) : 2019	0.11
6.	Concentration of Pb	µg/m ³	IS 5182 (Part 22) : 2019	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m ³	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 ₆ H ₆)	µg/m ³	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74
9.	Ozone (O ₃)	µg/m ³	IS 5182 (Part-9) : 2019	34.0
10.	Ammonia (NH ₃)	µg/m ³	IS 5182 (Part 25) : 2018	<4.18
11.	Nickel (Ni)	ng/m ³	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m ³	EPA IO 3.2, 1999& APHA 23 rd Ed 3114C : 2017	<0.01

Remarks : Result relates only to the sample tested.

Reviewed By :



INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :



Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145	Sampling Date	:	19.02.2024 – 20.02.2024
			Period of Analysis	:	02.03.2024 – 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Ambient Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XII
			Report No.	:	ENV/03/March/TR(A)/XII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : Near Administrative Building (Eastern Side)
2. Duration of Sampling : 24 hrs. (11:00 a.m. – 11:00 a.m.)

B] METEOROLOGICAL INFORMATION

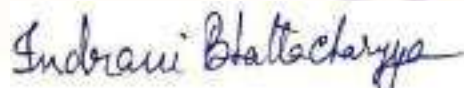
1. Average Temperature (°C) : 21.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Clear

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5}	µg/m ³	IS 5182 (Part 24) : 2019	57.13
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2019	81.56
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017& ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	8.02
4.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	30.46
5.	Concentration of CO	mg/m ³	IS 5182 (Part 10) : 2019	0.14
6.	Concentration of Pb	µg/m ³	IS 5182 (Part 22) : 2019	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m ³	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 ₆ H ₆)	µg/m ³	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74
9.	Ozone (O ₃)	µg/m ³	IS 5182 (Part-9) : 2019	46.0
10.	Ammonia (NH ₃)	µg/m ³	IS 5182 (Part 25) : 2018	<4.18
11.	Nickel (Ni)	ng/m ³	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m ³	EPA IO 3.2, 1999& APHA 23 rd Ed 3114C : 2017	<0.01

Remarks : Result relates only to the sample tested.

Reviewed By :



INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :



Dr. AJOY PAUL
Quality Manager

Annexure -7



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCU
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XIII
			Report No.	:	ENV/03/March/TR(A)/XIII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : AFBC Boiler Area
2. Duration of Sampling : 08 hrs. (10:00 a.m. - 06:00 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 23.0
2. Average Relative Humidity (%) : 73.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	IS 5182 (Part 4) : 2019	564.25

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya
INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul
Dr. AJOY PAUL
Quality Manager

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Branch Office : Siliguri ■ Haldia ■ Durgapur ■ Dhanbad ■ Gangtok ■ Port Blair ■ Dehradun ■ New Delhi
Overseas : UAE ■ Qatar ■ Netherlands

**ENVIROCHECK**

Recognised by MoEF&CC, WBPCB & JSPCB
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018

**TEST REPORT****FORMAT NO : ENV/FM/57**

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XIII
			Report No.	:	ENV/03/March/TR(A)/XIII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : AFBC Boiler Area
2. Duration of Sampling : 08 hrs. (10:00 a.m. - 06:00 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 23.0
2. Average Relative Humidity (%) : 73.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	7.62
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	29.41

Remarks : Result relates only to the sample tested.

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

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ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XIV
			Report No.	:	ENV/03/March/TR(A)/XIV/23-24

A] GENERAL INFORMATION

1. Location of Sampling : SMS Area
2. Duration of Sampling : 08 hrs. (10:10 a.m. - 06:10 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 23.0
2. Average Relative Humidity (%) : 72.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	IS 5182 (Part 4) : 2019	445.50

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya
INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul
Dr. AJOY PAUL
Quality Manager

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Overseas : UAE • Qatar • Netherlands



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & (SPCR)
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XIV
			Report No.	:	ENV/03/March/TR(A)/XIV/23-24

A] GENERAL INFORMATION

1. Location of Sampling : SMS Area
2. Duration of Sampling : 08 hrs. (10:10 a.m. - 06:10 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 23.0
2. Average Relative Humidity (%) : 72.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	7.45
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	29.82

Remarks : Result relates only to the sample tested.

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

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 Overseas : UAE • Qatar • Netherlands



ENVIROCHECK

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Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XV
			Report No.	:	ENV/03/March/TR(A)/XV/23-24

A] GENERAL INFORMATION

1. Location of Sampling : DRI - 350 TPD Area
2. Duration of Sampling : 08 hrs. (10:25 a.m. - 06:25 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 24.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	IS 5182 (Part 4) : 2019	945.30

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya
INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul
Dr. AJOY PAUL
Quality Manager

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Overseas : UAE ■ Qatar ■ Netherlands



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XV
			Report No.	:	ENV/03/March/TR(A)/XV/23-24

A] GENERAL INFORMATION

1. Location of Sampling : DRI - 350 TPD Area
2. Duration of Sampling : 08 hrs. (10:25 a.m. - 06:25 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 24.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	7.84
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	30.34

Remarks : Result relates only to the sample tested.

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJAY PAUL
Quality Manager

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XVI
			Report No.	:	ENV/03/March/TR(A)/XVI/23-24

A] GENERAL INFORMATION

1. Location of Sampling : Cooler Discharge - DRI - 100 TPD Area
2. Duration of Sampling : 08 hrs. (10:20 a.m. - 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

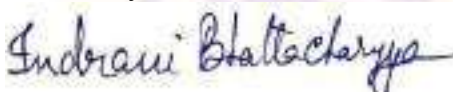
1. Average Temperature (°C) : 22.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	IS 5182 (Part 4) : 2019	1135.30

Remarks : Result relates only to the sample tested.

Reviewed By :


INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :


Dr. AJOY PAUL
Quality Manager

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.				Type of Industry	:	Steel & Power Unit				
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145				Sampling Date	:	20.02.2024				
						Period of Analysis	:	02.03.2024 – 02.03.2024				
						Date of Issue	:	04.03.2024				
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan				:	No	Type of Sample	:	Work Zone Air	
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XVI		Report No.	:	ENV/03/March/TR(A)/XVI/23-24			

A] GENERAL INFORMATION

1. Location of Sampling : Cooler Discharge - DRI - 100 TPD Area
2. Duration of Sampling : 08 hrs. (10:20 a.m. - 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 22.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	7.70
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	29.62

Remarks : Result relates only to the sample tested.

Reviewed By :

INDRANI BHATTACHARYA
 Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJAY PAUL
 Quality Manager

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XVII
			Report No.	:	ENV/03/March/TR(A)/XVII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : DRI - 100 TPD Area
2. Duration of Sampling : 08 hrs. (10:25 a.m. - 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 23.0
2. Average Relative Humidity (%) : 72.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	IS 5182 (Part 4) : 2019	981.30

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya
INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul
Dr. AJOY PAUL
Quality Manager

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XVII
			Report No.	:	ENV/03/March/TR(A)/XVII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : DRI - 100 TPD Area
2. Duration of Sampling : 08 hrs. (10:25 a.m. - 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 23.0
2. Average Relative Humidity (%) : 72.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	8.12
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	24.66

Remarks : Result relates only to the sample tested.

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XVIII
			Report No.	:	ENV/03/March/TR(A)/XVIII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : Pellet Formation Area
2. Duration of Sampling : 08 hrs. (10:30 a.m. - 06:30 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 21.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	IS 5182 (Part 4) : 2019	548.98

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya
INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. Ajoy Paul
Dr. AJOY PAUL
Quality Manager

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	19.02.2024
			Period of Analysis	:	02.03.2024 - 02.03.2024
			Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Work Zone Air
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/XVIII
			Report No.	:	ENV/03/March/TR(A)/XVIII/23-24

A] GENERAL INFORMATION

1. Location of Sampling : Pellet Formation Area
2. Duration of Sampling : 08 hrs. (10:30 a.m. - 06:30 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 21.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	6.81
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	26.24

Remarks : Result relates only to the sample tested.

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJAY PAUL
Quality Manager

<End of Report>

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Annexure-8

FORMAT NO. ENV/FM/40

TEST REPORT

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	21.02.2024 – 27.02.2024
			Date of Issue	:	29.02.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Industrial Effluent Water (Grab)
Location	:	E.T.P Outlet	Sample Condition	:	Sealed
			Sample ID No.	:	ENV/609A/Feb./W/M/IV
Report No.	:	ENV/609A/Feb./TR(W)/M/IV/23-24			

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS	LIMIT
1.	pH	4500 H+B APHA 23 rd Edition, 2017	-	6.80	5.5 – 9.0
2.	Total Suspended solids	2540 D APHA 23 rd Edition, 2017	mg/l	30.0	100.0
3.	Oil & Grease	5520 B/D APHA 23 rd Edition, 2017	mg/l	4.50	10.0
4.	Chemical Oxygen Demand	5200 B/C/D APHA 23 rd Edition, 2017	mg/l	120.0	250.0
5.	Biochemical Oxygen Demand for 5 days at 20°C	5210 B APHA 23 rd Edition, 2017	mg/l	<2.0	30.0

Remarks : a) Result shows that above tested parameters are within limit 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

Authorised Signatory :



Dr. AJAY PAUL
Quality Manager

<End of Report>

Annexure-9

FORMAT NO. ENV/FM/55

TEST REPORT

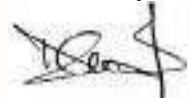
Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	21.02.2024 – 28.02.2024
			Date of Issue	:	29.02.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Ground Water
Location	:	Tubewell of Mahuda Village	Sample Condition	:	Sealed
			Sample ID No.	:	ENV/609A/Feb./W/M(i)
Report No.	:	ENV/609A/Feb./TR(W)/M(i)/23-24			

PARAMETERS	METHOD	UNIT	RESULTS
1. Colour	APHA 23 rd Ed., 3111 B : 2017	Hazen	1.0
2. Odour	APHA 23 rd Ed., 2150 B : 2017	--	Odourless
3. pH	APHA 23 rd Ed., 4500 – H ⁺ B : 2017	--	6.80
4. Taste	APHA 23 rd Ed., 2160 B : 2017	--	Acceptable
5. Turbidity	APHA 23 rd Ed., 2130 B : 2047	NTU	1.62
6. Total Dissolved Solids	APHA 23 rd Ed., 2540 B : 2017	mg./l	490.0
7. Calcium	APHA 23 rd Ed., 3500 Ca-B : 2017	mg./l	24.05
8. Chloride	APHA 23 rd Ed., 4500 Cl-B/D : 2017	mg./l	53.09
9. Iron	APHA 23 rd Ed., 3111 B : 2017	mg./l	0.68
10. Magnesium	APHA 23 rd Ed., 3500 Mg-B : 2017	mg./l	7.2
11. Nitrate	APHA 23 rd Ed., NO ₃ -E : 2017	mg./l	2.60
12. Sulphate	APHA 23 rd Ed., 4500 SO ₄ -E : 2017	mg./l	46.50
13. Total Alkalinity	APHA 23 rd Ed., 2320 B : 2017	mg./l	120.0
14. Total Hardness	APHA 23 rd Ed., 2340 C : 2017	mg./l	90.0
15. Arsenic	IS 3025 (Part 37) : 1988 : 2014	mg./l	<0.01
16. Chromium	APHA 23 rd Ed., 3111 Cr-B : 2017	mg./l	<0.02
17. Boron	APHA 23 rd Ed., 4500 B-C : 2017	mg./l	<0.1

Remarks : a) Sample collected by Envirocheck and sent to lab for testing in sealed condition.

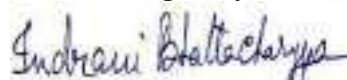
b) Result relates only to the sample tested.

Reviewed By :



DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :



INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

FORMAT NO. ENV/FM/55

TEST REPORT

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	21.02.2024 – 28.02.2024
			Date of Issue	:	29.02.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Ground Water
Location	:	Tubewell of Rukmi Village	Sample Condition	:	Sealed
			Sample ID No.	:	ENV/609A/Feb./W/M(ii)
Report No.	:	ENV/609A/Feb./TR(W)/M(ii)/23-24			

PARAMETERS	METHOD	UNIT	RESULTS
1. Colour	APHA 23 rd Ed., 3111 B : 2017	Hazen	1.0
2. Odour	APHA 23 rd Ed., 2150 B : 2017	--	Odourless
3. pH	APHA 23 rd Ed., 4500 - H ⁺ B : 2017	--	6.90
4. Taste	APHA 23 rd Ed., 2160 B : 2017	--	Acceptable
5. Turbidity	APHA 23 rd Ed., 2130 B : 2047	NTU	1.78
6. Total Dissolved Solids	APHA 23 rd Ed., 2540 B : 2017	mg./l	480.0
7. Calcium	APHA 23 rd Ed., 3500 Ca-B : 2017	mg./l	33.26
8. Chloride	APHA 23 rd Ed., 4500 Cl-B/D : 2017	mg./l	59.0
9. Iron	APHA 23 rd Ed., 3111 B : 2017	mg./l	0.82
10. Magnesium	APHA 23 rd Ed., 3500 Mg-B : 2017	mg./l	8.88
11. Nitrate	APHA 23 rd Ed., NO ₃ -E : 2017	mg./l	4.80
12. Sulphate	APHA 23 rd Ed., 4500 SO ₄ -E : 2017	mg./l	62.50
13. Total Alkalinity	APHA 23 rd Ed., 2320 B : 2017	mg./l	110.0
14. Total Hardness	APHA 23 rd Ed., 2340 C : 2017	mg./l	120.0
15. Arsenic	IS 3025 (Part 37) : 1988 : 2014	mg./l	<0.01
16. Chromium	APHA 23 rd Ed., 3111 Cr-B : 2017	mg./l	<0.02
17. Boron	APHA 23 rd Ed., 4500 B-C : 2017	mg./l	<0.1

Remarks : a) Sample collected by Envirocheck and sent to lab for testing in sealed condition.

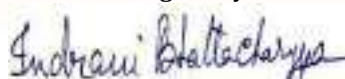
b) Result relates only to the sample tested.

Reviewed By :



DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :



INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

<End of Report>

Annexure-10

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/02/Mar/(TR)N/I/23-24

Sampling Locations :	Mohuda Village (South East Side)	Date of Study :	20/02/2024
Category :	Integrated Steel Plant	Day time :	6 AM to 10 PM

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Day time L _{eq}
6:00 AM to 7:00 AM	45.3	49.1	47.60	52.32
7:00 AM to 8:00 AM	46.2	50.6	48.93	
8:00 AM to 9:00 AM	50.1	53.2	51.92	
9:00 AM to 10:00 AM	51.6	54.9	53.56	
10:00 AM to 11:00 AM	51.9	53.2	52.60	
11:00 AM to 12:00 PM	50.4	55.1	53.36	
12:00 PM to 1:00 PM	52.5	57.6	55.76	
1:00 PM to 2:00 PM	51.4	56.2	54.43	
2:00 PM to 3:00 PM	50.3	54.9	53.18	
3:00 PM to 4:00 PM	50.9	53.6	52.46	
4:00 PM to 5:00 PM	51.7	54.2	53.13	
5:00 PM to 6:00 PM	50.2	53.7	52.29	
6:00 PM to 7:00 PM	50.0	52.5	51.43	
7:00 PM to 8:00 PM	49.3	51.2	50.35	
8:00 PM to 9:00 PM	48.2	50.6	49.56	
9:00 PM to 10:00 PM	46.4	49.2	48.02	

Date of Study :	20/02/2024 To 21/02/2024	Night time :	10 PM to 6 AM
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Time(hrs.)	L _{min}	L _{max}	L _{eq}	Night time L _{eq}
10:00 PM to 11:00 PM	41.5	44.3	43.12	44.40
11:00 PM to 12:00 AM	40.3	43.9	42.46	
12:00 AM to 1:00 AM	39.9	41.6	40.83	
1:00 AM to 2:00 AM	38.3	40.1	39.29	
2:00 AM to 3:00 AM	40.7	43.2	42.13	
3:00 AM to 4:00 AM	41.6	45.9	44.26	
4:00 AM to 5:00 AM	44.9	48.3	46.92	
5:00 AM to 6:00 AM	45.3	50.2	48.41	

L_{min} : Minimum Noise level

L_{max} : Maximum Noise level

L_{eq} : Equivalent sound energy

Compiled by : (Signature)
Dr. Ajay Paul

Envirocheck Seal
Date : 24/02/2024



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 { 033-25792809
Email : info@envirocheck.in/envirocheck50@gmail.com / Website : www.envirocheck.in
Branch Office : • Siliguri • Haldia • Durgapur • Dhanbad • Gangtok • Port Blair • Dharwad • New Delhi
Overseas : • UAE • Qatar • Netherlands



ENVIROCHECK

Recognized by MoEF&O, WPCB & (SPCB)
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



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/02/Mar/(TR)N/II/23-24

Sampling Locations :	Raw Material Yard (Western Side)	Date of Study :	20/02/2024
Category :	Integrated Steel Plant	Day time :	6 AM to 10 PM

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Day time L _{eq}
6:00 AM to 7:00 AM	55.4	59.3	57.77	63.49
7:00 AM to 8:00 AM	58.6	61.5	60.29	
8:00 AM to 9:00 AM	61.3	65.4	63.82	
9:00 AM to 10:00 AM	62.8	66.2	64.82	
10:00 AM to 11:00 AM	63.9	67.4	65.99	
11:00 AM to 12:00 PM	62.7	68.3	66.35	
12:00 PM to 1:00 PM	64.6	69.1	67.41	
1:00 PM to 2:00 PM	60.4	65.0	63.28	
2:00 PM to 3:00 PM	61.3	63.8	62.73	
3:00 PM to 4:00 PM	63.8	65.7	64.85	
4:00 PM to 5:00 PM	61.2	64.5	63.16	
5:00 PM to 6:00 PM	60.5	63.8	62.46	
6:00 PM to 7:00 PM	60.4	63.2	62.02	
7:00 PM to 8:00 PM	58.6	61.4	60.22	
8:00 PM to 9:00 PM	56.3	60.5	58.89	
9:00 PM to 10:00 PM	55.4	58.1	56.96	

Date of Study :	20/02/2024 To 21/02/2024	Night time :	10 PM to 6 AM
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Time(hrs.)	L _{min}	L _{max}	L _{eq}	Night time L _{eq}
10:00 PM to 11:00 PM	52.1	57.5	55.59	52.16
11:00 PM to 12:00 AM	50.8	55.4	53.68	
12:00 AM to 1:00 AM	46.1	50.4	48.76	
1:00 AM to 2:00 AM	44.8	48.3	46.89	
2:00 AM to 3:00 AM	42.5	47.6	45.76	
3:00 AM to 4:00 AM	48.3	51.4	50.12	
4:00 AM to 5:00 AM	51.8	53.5	52.73	
5:00 AM to 6:00 AM	52.8	55.4	54.29	

L_{min} : Minimum Noise level

L_{max} :Maximum Noise level

L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 24/02/2024



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

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 [033-25792891/25497490, Fax : 033-25209141
Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 [033-25792889
Email : info@envirocheck.in/envirocheck50@gmail.com / Website : www.envirocheck.in
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ENVIROCHECK

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Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



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/02/Mar/(TR)N/III/23-24

Sampling Locations :	Near Administrative Building – Eastern Side	Date of Study :	20/02/2024
Category :	Integrated Steel Plant	Day time :	6 AM to 10 PM

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Day time L _{eq}
6:00 AM to 7:00 AM	61.4	65.8	64.13	65.15
7:00 AM to 8:00 AM	62.3	66.7	65.03	
8:00 AM to 9:00 AM	62.8	68.6	66.60	
9:00 AM to 10:00 AM	63.5	69.2	67.22	
10:00 AM to 11:00 AM	62.6	65.7	63.91	
11:00 AM to 12:00 PM	64.2	68.6	66.90	
12:00 PM to 1:00 PM	64.7	69.1	67.78	
1:00 PM to 2:00 PM	62.5	70.9	64.80	
2:00 PM to 3:00 PM	63.7	68.5	65.35	
3:00 PM to 4:00 PM	60.2	65.6	63.68	
4:00 PM to 5:00 PM	64.1	67.9	65.65	
5:00 PM to 6:00 PM	60.7	68.1	65.89	
6:00 PM to 7:00 PM	60.7	65.7	63.91	
7:00 PM to 8:00 PM	61.6	64.2	63.09	
8:00 PM to 9:00 PM	59.1	63.5	61.83	
9:00 PM to 10:00 PM	58.4	61.2	60.02	

Date of Study :	20/02/2024 To 21/02/2024	Night time :	10 PM to 6 AM
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Time(hrs.)	L _{min}	L _{max}	L _{eq}	Night time L _{eq}
10:00 PM to 11:00 PM	50.6	55.1	53.41	57.85
11:00 PM to 12:00 AM	49.4	51.3	50.45	
12:00 AM to 1:00 AM	41.6	49.4	47.06	
1:00 AM to 2:00 AM	40.3	50.6	47.98	
2:00 AM to 3:00 AM	52.1	58.4	55.89	
3:00 AM to 4:00 AM	51.7	53.5	52.71	
4:00 AM to 5:00 AM	60.6	62.8	61.84	
5:00 AM to 6:00 AM	62.8	64.4	63.67	

L_{min} : Minimum Noise level

L_{max} :Maximum Noise level

L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 24/02/2024



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
Email : info@envirocheck.in/envirocheck50@gmail.com / Website : www.envirocheck.in
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ENVIROCHECK

Recognized by MAF&CC, WBPHD & JSPH
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



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/02/Mar/(TR)N/IV/23-24

Sampling Locations :	Railway Siding Area – North East Side	Date of Study :	20/02/2024
Category :	Integrated Steel Plant	Day time :	6 AM to 10 PM

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Day time L _{eq}
6:00 AM to 7:00 AM	58.6	62.8	61.19	63.86
7:00 AM to 8:00 AM	59.2	63.0	61.50	
8:00 AM to 9:00 AM	60.6	63.2	62.09	
9:00 AM to 10:00 AM	61.9	64.8	63.59	
10:00 AM to 11:00 AM	62.3	65.1	63.92	
11:00 AM to 12:00 PM	63.8	66.7	65.49	
12:00 PM to 1:00 PM	64.6	67.5	66.29	
1:00 PM to 2:00 PM	61.8	64.7	63.45	
2:00 PM to 3:00 PM	60.7	62.3	61.48	
3:00 PM to 4:00 PM	61.8	62.9	62.56	
4:00 PM to 5:00 PM	60.7	67.7	65.90	
5:00 PM to 6:00 PM	62.8	66.2	64.15	
6:00 PM to 7:00 PM	63.8	67.3	65.10	
7:00 PM to 8:00 PM	62.3	67.1	63.90	
8:00 PM to 9:00 PM	61.2	65.4	63.79	
9:00 PM to 10:00 PM	60.4	64.8	63.13	

Date of Study :	20/02/2024 To 21/02/2024	Night time :	10 PM to 6 AM
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Time (hrs.)	L _{min}	L _{max}	L _{eq}	Night time L _{eq}
10:00 PM to 11:00 PM	51.5	56.4	54.61	54.41
11:00 PM to 12:00 AM	50.2	56.9	54.73	
12:00 AM to 1:00 AM	49.9	55.1	53.24	
1:00 AM to 2:00 AM	48.6	54.8	52.72	
2:00 AM to 3:00 AM	43.4	52.6	50.08	
3:00 AM to 4:00 AM	53.8	55.4	54.67	
4:00 AM to 5:00 AM	53.8	56.7	55.49	
5:00 AM to 6:00 AM	54.2	58.4	56.79	

L_{min} : Minimum Noise level

L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 24/02/2024



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
Email : info@envirocheck.in/envirocheck50@gmail.com / Website : www.envirocheck.in
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Annexure-11



ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & QSPCB
Accredited by NABL (ISO/IEC 17025:2005)
Certified by ISO 9001:2008, ISO 14001 : 2015 & OHSAS 18001:2007



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/02/Mar/(TR)N/I/23-24		
8.	Date of Study	:	20/02/2024		
9.	Reporting Date	:	24/02/2024		
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. Sujoy Dasgupta		
RESULT OF NOISE LEVEL STUDY				Time :10:00 – 10:20A.M	
DAY TIME					
1. Location : Pallet Formation Area					
Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	63.4	70.4	68.18	East Side
02.	dB(A)	62.8	71.8	69.30	West Side
03.	dB(A)	65.6	69.8	68.19	North Side
04.	dB(A)	66.8	70.2	68.82	South Side
Average dB(A) Leq				68.62	

Reviewed By:

Approved By:

Dy. Quality Manager

Quality Manager

>End of Report<



ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & USPCB
Accredited by NABL (ISO/IEC 17025:2005)
Certified by ISO 9001:2008, ISO 14001 : 2015 & OHSAS 18001:2007



Certificate No. TC-6614

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/02/Mar/(TR)N/II/23-24
8.	Date of Study	:	20/02/2024
9.	Reporting Date	:	24/02/2024
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. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time : 10:30 - 10:50 A.M

DAY TIME

2. Location : DRI Area (100 TPD)

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	68.4	72.8	71.13	East Side
02.	dB(A)	70.6	74.4	72.90	West Side
03.	dB(A)	72.2	76.0	74.50	North Side
04.	dB(A)	70.5	75.5	73.68	South Side
Average dB(A) Leq				73.05	

Reviewed By:

Approved By:

Dy. Quality Manager

Quality Manager

>End of Report<



ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & OSPCB
Accredited by NABL (ISO/IEC 17025:2005)
Certified by ISO 9001:2008, ISO 14001 : 2015 & OHSAS 18001:2007



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/02/Mar/(TR)N/III/23-24
8.	Date of Study	:	20/02/2024
9.	Reporting Date	:	24/02/2024
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. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time :11:00 – 11:20 A.M

DAY TIME

3. Location : Cooler Discharge Area

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	66.8	70.4	68.96	East Side
02.	dB(A)	71.5	74.4	73.19	West Side
03.	dB(A)	68.6	73.8	71.94	North Side
04.	dB(A)	70.4	75.6	73.74	South Side
Average dB(A) Leq				71.95	

Reviewed By:

Approved By:

Dy. Quality Manager

Quality Manager

>End of Report<



ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & USPCB
Accredited by NABL (ISO/IEC 17025:2005)
Certified by ISO 9001:2008, ISO 14001 : 2015 & OHSAS 18001:2007



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/02/Mar/(TR)N/IV/23-24
8.	Date of Study	:	20/02/2024
9.	Reporting Date	:	24/02/2024
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. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time : 10:00 - 10:20A.M

DAY TIME

4. Location : DRI Area (350 TPD)

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	65.6	70.4	68.63	East Side
02.	dB(A)	70.8	73.6	72.42	West Side
03.	dB(A)	71.5	75.5	73.95	North Side
04.	dB(A)	70.3	74.7	73.03	South Side
Average dB(A) Leq				72.00	

Reviewed By:

Approved By:

Dy. Quality Manager

Quality Manager

>End of Report<



ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & QSPCB
Accredited by NABL (ISO/IEC 17025:2005)
Certified by ISO 9001:2008, ISO 14001 : 2015 & OHSAS 18001:2007



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/02/Mar/(TR)N/V/23-24
8.	Date of Study	:	20/02/2024
9.	Reporting Date	:	24/02/2024
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. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time : 10:00 - 10:20A.M

DAY TIME

5. Location : SMS Area

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	66.2	75.8	73.24	East Side
02.	dB(A)	68.4	74.5	72.44	West Side
03.	dB(A)	62.8	72.2	69.66	North Side
04.	dB(A)	63.4	71.9	69.46	South Side
Average dB(A) Leq				71.20	

Reviewed By:

Approved By:

Dy. Quality Manager

Quality Manager

>End of Report<



ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & QSPCB
Accredited by NABL (ISO/IEC 17025:2005)
Certified by ISO 9001:2008, ISO 14001 : 2015 & OHSAS 18001:2007



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/02/Mar/(TR)N/VI/23-24
8.	Date of Study	:	20/02/2024
9.	Reporting Date	:	24/02/2024
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. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time : 10:00 - 10:20A.M

DAY TIME

6. Location : AFBC Boiler Area

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	67.6	72.4	70.63	East Side
02.	dB(A)	68.2	73.5	71.61	West Side
03.	dB(A)	72.2	73.8	73.07	North Side
04.	dB(A)	71.8	74.4	73.29	South Side
Average dB(A) Leq				72.15	

Reviewed By:

Approved By:

Dy. Quality Manager

Quality Manager

>End of Report<

Annexure-12



Ref. No. 01/16-17/DRWO

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) of the ONE part

And

M/S. Drishti Fire Bricks, a partnership firm and having its factory at Inanpur, 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.

DRISHTI FIRE BRICKS

Proprietor



पश्चिम बंगाल 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:

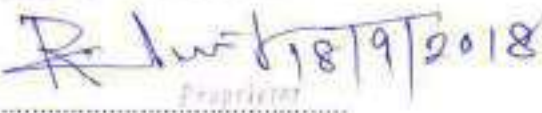
1. That the Agreement shall come into force immediately and shall remain valid for a period of 8 years w. e. f. The date of agreement.

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.
9. 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.
10. 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 18TH day of SEPTEMBER 2018 for and on behalf of the Supplier and Purchaser as follows:

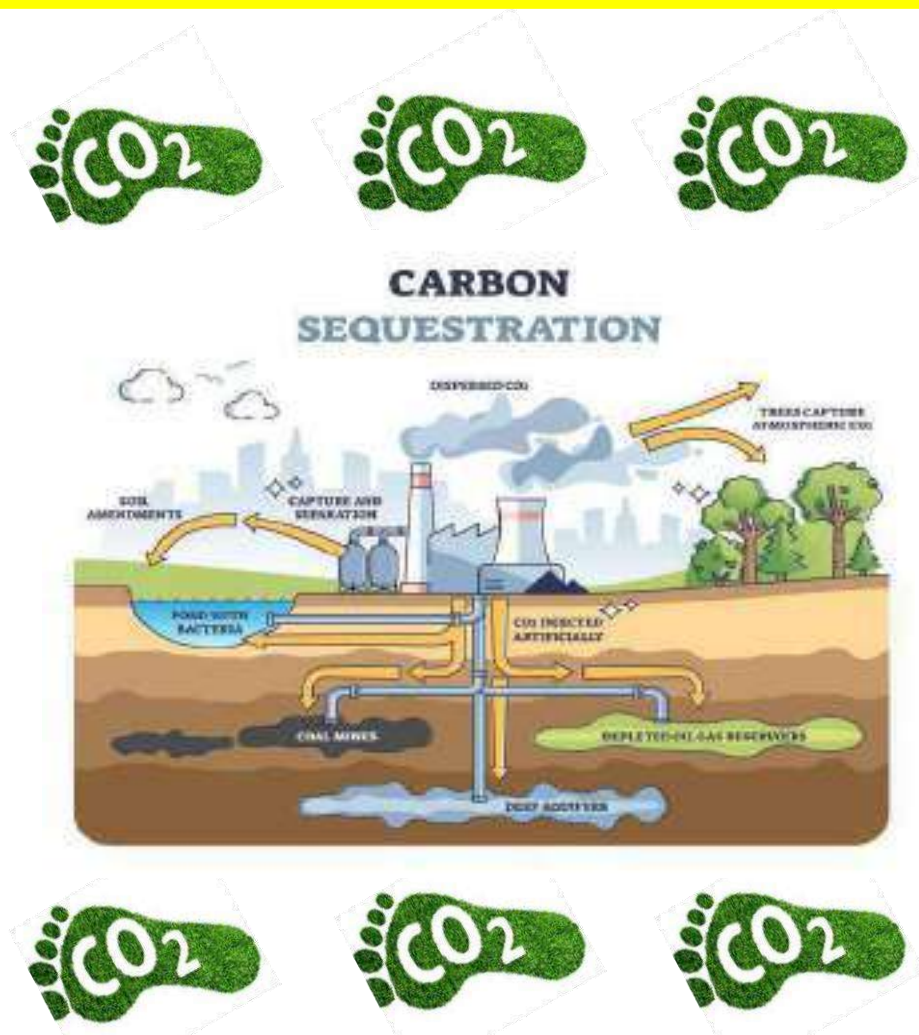
Supplier
Bravo Sponge Iron Pvt. Ltd.

1. _____
Authorized Signatory

PURCHASER
DIAMOND FLY ASH EXPORTS

2. _____
Purchaser

Annexure- 13

Bravo Sponge Iron Pvt. Ltd.



GHG STUDY (CARBON FOOTPRINT)

BRAVO SPONGE IRON PVT.LIMITED

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 tons 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 Bravo Sponge iron private 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 Bravo sponge iron private 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 Bravo sponge iron private limited based on the emission factors.

1. Sponge Iron Unit (DRI)

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

Table 01: CO₂ e Emission from Sponge iron plant

Unit	Production (TPA)	Emission Factor (ton CO ₂ /Ton of steel)	CO ₂ e Emissions of the plant (TPA)
DRI (3x100 TPD,1x 95TPD & 1x350 TPD)	246302	0.7	172411.3

* 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.

Table 02: CO₂ e Emission from Induction furnace

Unit	Raw Materials	Quantity (TPA)	Carbon Content (W/W)	Total Carbon (TPA)	Carbon Retained in Billet (TPA)	Carbon Burnt (TPA)	CO ₂ e Emissions of the plant (TPA)
SMS	Pig Iron	7,137.31	0.04	285.49	237.47	1631.87	5988.96
	Sponge Iron	78,091.68	0.02	1,561.83			
	Ferro Alloys	1,100.82	0.02	22.02			
	Scrap	17,865.05	0.04	714.60			

3. Pellet Plant

Following table shows the CO₂ emissions from the operation of 2x0.85 MTPA Pellet Plant.

Table 03: CO₂ e Emission from Pellet plant

Configuration	Production Capacity	Emission Co-efficient	CO ₂ e Emission of the plant (TPA)
1X0.85 MTPA	1272850	0.03	38185.5

4. Captive Power Plant (WHRB+AFBC 23.9 MW)

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.

Table 04: CO₂ e Emission from Captive Power Plant

Required Fuel	Quantity TPA	Carbon Content (W/W)	Combustion Rate	CO ₂ e Emissions of the plant (TPA)
Coal	8554.55	0.67	95%	19983.04
Dolochar	71311.36	0.25	95%	62156.76
Total CO ₂ e Emissions of the plant (T/Year)				82139.81

Thus, the cumulative CO₂e emitted from the existing project with sum of table 1-4 is **2,98,725.57 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;)

Mitigation measures to reduce Carbon Footprints

With the growing concern over climate change, steel makers are faced with the challenge of finding ways of lowering CO₂ emissions without seriously undermining process efficiency or considerably adding to costs. The iron and steel industry are the largest industrial source of CO₂ emissions due to the energy intensity of steel production, its reliance on carbon-based fuels and reductants.

The technological compendium of industries suggests the need to shift from traditional carbon intensive technologies for iron and steel production to low-carbon environment friendly technologies. Following are the measures which shall be adopted in coming years by the industries to reduce the overall carbon footprints

- Regenerative Burners in Re-heating Furnaces of Rolling Mills after its implementation.
- Hot charging process of continuously cast products at higher temperature directly to Rolling Mills which eliminate the need for re-heating furnaces.
- Scoping the minimum use of Reheating Furnaces

- Adoption of Variable Voltage Variable Frequency (VVVF) Drives for high capacity electric motors
- Minimizing energy consumption and improving the energy efficiency of the process
- Sufficient and affordable renewable energy needs to be implemented in the industry
- Installing state of art cleaner technologies
- Afforestation and Plantation
- The continuation and reinforcement of the promotion of sustainable means of transport for commuters, such as bicycles, public transport and, most of all, car-pooling would contribute to reducing carbon emissions.

Measures being taken by Bravo Sponge Iron Pvt. Limited

The Company has taken some plan under this expansion proposal, which shall be considered as attempts towards clean technology.

- Promoting minimum use of vehicles during plant visit.
- Installation solar light system on the roof top of administrative building ect. for office lighting purpose.
- Increasing afforestation in and around the factory premises.
- Promotion of adequate affordable renewable energy in the industry.
- The use of sensible heat generated during the sponge-iron-making process for power generation at CPP through WBRB which falls under criteria of green energy generation.
- Thus, by using the green energy through WHRB BSIPL shall contribute in carbon sequestration with restricting the CO₂ e Emission. The United Nations Framework Convention on Climate Change also considers electricity generated through WHR System as green, therefore, such projects are eligible for earning carbon credits.
- BSIPL has purchased 08 nos. of EV (Electric Vehicle) cars and re-charging of these batteries shall be through electricity generated from solar panel planned to be installed.

Attempts to reduce Carbon emission/to bring down Carbon intensity

- Bravo Sponge Iron Pvt. Limited shall prefer direct charging of hot billets to rolling mills from SMS and it shall be executed with installation of rolling mills. This attempt will remarkably reduce dependency on re-heating furnace and burning of fossil fuel like LSHS/LDO and consequently reduce the CO₂ emission. Company shall always scope the optimal use of reheating furnaces proposed in expansion project.
- Max. Recycling of iron scrap to obtain molten metal from induction furnaces.

These moves should be considered as its positive attempts to bring down Carbon intensity.

Moreover, the company proposes uses of Variable Frequency Drive ID Fans, Energy Monitoring & Management System, Regenerative Burners in Re-heating Furnace of Rolling Mills, Adoption of Variable Voltage Variable Frequency (VVVF) Drives for high capacity electric motors, Installing state of art cleaner technologies.

Carbon Sequestration and Carbon Credit

Carbon sequestration is defined as the removal of carbon dioxide from the atmosphere and storage in a system. Carbon sequestration is gaining its importance in carbon credit and trading. Identification of many CDM (Clean Development Mechanism) projects has offered special flexibility and relevance in the carbon reduction and has helped improve the national economy. These projects have estimated the

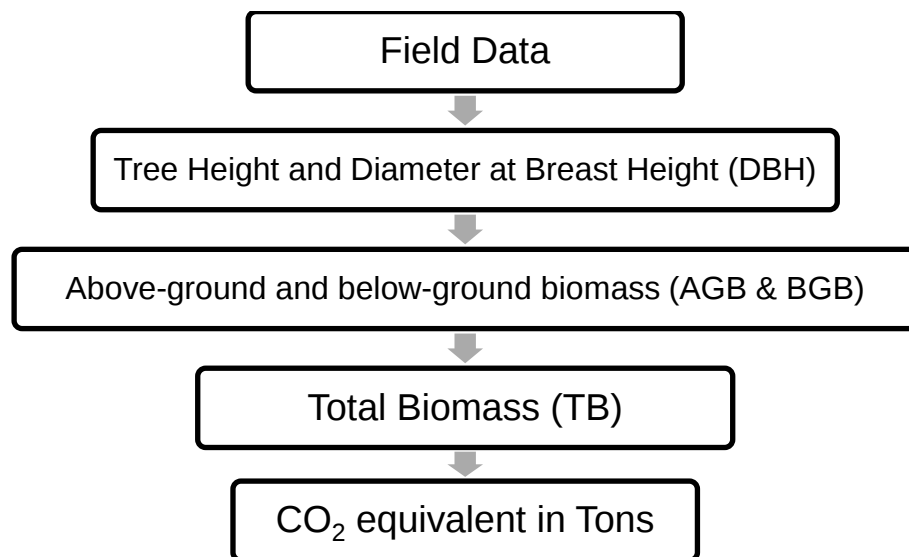
quantity of carbon in various systems and their dynamics associated with it. With these estimations, several strategies and formulations have evolved quantifying and reducing the carbon foot print.

Carbon credit by recycling and reuse of iron scrap in induction furnaces of SMS, BSIPL shall reduce the carbon footprint (Ref: World Steel Association Fact Sheet on use of return & purchased scrap), and by using the green energy through WHRB BSIPL shall contribute in carbon sequestration with restricting the CO₂ e Emission up to a considerable amount.

No doubt carbon sequestration can be achieved through various systems, but trees form to be the largest terrestrial sink of carbon dioxide. Therefore, the plantation is granted as the most efficient and biggest terrestrial carbon sequestration method. Out of the five most important terrestrial carbon sequestration system (above ground biomass, below ground biomass, litter, wood debris, and soil organic carbon), the above and below ground biomass are the top two in the pool. Biomass of trees develops when plants take in carbon dioxide from the atmosphere in the presence of sunlight and convert them into starch in their tissues. Several studies have revealed that the carbon content in these tissues is half their biomass. So, with their growth and development, trees go on sequestering CO₂ from the atmosphere and store in their tissues as carbohydrates. This continues until the death of the tree. The rate of carbon sequestration is however maximum during the early stages of growth in trees when trees try to produce more and more amount of food to grow, meet the energy required by them and to stabilize in their respective environmental conditions.

Estimation of Carbon Sequestration Potential of Trees

There are generally two methods to estimate carbon sequestration in plant biomass. Direct method that involves cutting of the tree and Indirect method that is calculated through the above ground biomass and below ground biomass method without slashing the tree. Being ethically and ecologically sound, the second method was preferred for the present study.



Methodology for Carbon Sequestration from Trees

The girth at breast height (GBH) of the trees was measured using a measuring tape at a height of 1.96 m from the ground surface. The height of the trees was measured using reference method (referring to the height of a nearby building or tower), pencil method and angle method as per the convenience. The above ground biomass (AGB) and below ground biomass (BGB) were then calculated as per the formula is given below.

$$\text{Basal area (m}^2\text{)} = (\text{GBH})^2/4\pi$$

$$\text{Bio-volume (m}^3\text{)} = \text{Basal area} \times \text{Height of the tree}$$

$$\text{AGB (kg)} = \text{Bio-volume} \times \text{Wood density (kg/m}^3\text{)}$$

$BGB\ (kg) = AGB \times 0.26$ (Where 0.26 = Root to Shoot ratio)

Total Biomass (TB) in kg/tree = $AGB + BGB$

Total Carbon Sequestered (TC) in kg/tree = $TB/2$

The Carbon content in trees was taken on an average as 50% of the tree biomass. The wood density of the individual tree species was derived from secondary sources. The CO₂ equivalent was calculated using the following formula:

$CO_2e = (TC \times 44)/12$

Where, 44 and 12 are the molecular and atomic weight of CO₂ and C, respectively.

Bravo Sponge Iron Pvt. Limited has cover more than 33% (31.73Ha.) land of total project area with plantation of 16900 plants. The carbon sequestration by plantation shown in the following table:

Table 05:

CARBON SEQUESTRATION THROUGH GREENBELT DEVELOPMENT IN AND AROUND THE PLANT PREMISES OF BRAVO SPONGE IRON PVT. LIMITED

Sl. No.	Plant Specices	Local Name	Periphery (cm.)	Basal Area (M2)	Height (M)	Basal Volume (M3)	Density (Kg/M3)	AGB (Kg)	BGB (Kg)	TB (Kg)	TC (Kg)	CO2e (Kg)	No. Tree	Total CO2e (TPA)
1	Azadirachta indica	Neem	68	0.037	6.5	0.239	900	215.37	56.00	271.37	135.68	497.50	1200	597
2	Polyalthia longifoila	Debdaru	30	0.007	4	0.029	875	25.08	6.52	31.60	15.80	57.93	105	6
3	Acacia auriculiformis	Sonajhuri	48	0.018	5	0.092	625	57.32	14.90	72.22	36.11	132.41	375	50
4	Dalbergia sissoo	Shishu	59	0.028	8	0.222	800	177.38	46.12	223.50	111.75	409.75	120	49
5	Ficus benghalensis	Bot	78	0.048	7	0.339	700	237.35	61.71	299.06	149.53	548.28	700	384
6	Ficus religiosa	Peepal	95	0.072	10	0.719	700	502.99	130.78	633.77	316.88	1161.91	850	988
7	Anthocephalus cadamba	Kadam	59	0.028	6	0.166	600	99.77	25.94	125.71	62.86	230.47	2200	507
8	Mimusops elengi	Bakul	58	0.027	3.5	0.094	1008	94.49	24.57	119.06	59.53	218.27	80	17
9	Albizzia lebbeck	Sreesh	85	0.058	8	0.460	630	289.92	75.38	365.30	182.65	669.72	2100	1,406
10	Conocarpus	Conocarpus	54	0.023	7	0.163	580	94.26	24.51	118.77	59.38	217.74	2500	544
11	Caesalpinia pulcherrima	Radhachura	64	0.033	4.5	0.147	530	77.78	20.22	98.00	49.00	179.67	3000	539
12	Delonix regia	Krishnachura	54	0.023	4.5	0.104	510	53.28	13.85	67.13	33.57	123.08	150	18
13	Lagerstroemia speciosa	Jarul	45	0.016	3	0.048	700	33.86	8.80	42.66	21.33	78.22	160	13
14	Millettia pinnata	Karanj	61	0.030	4	0.119	680	80.58	20.95	101.53	50.77	186.14	50	9
15	Alstonia scholaris	Chhatim	72	0.041	4	0.165	700	115.57	30.05	145.62	72.81	266.97	70	19
16	Wodyetia bifurcata	Fox Tail Palm	45	0.016	2.8	0.045	540	24.38	6.34	30.72	15.36	56.32	65	4
17	Dysoxylum procerum	Lamboo	68	0.037	4.5	0.166	600	99.4	25.84	125.24	62.62	229.61	125	29
18	Syzygium cumini	Jamun	68	0.037	4.2	0.155	700	108.24	28.14	136.38	68.19	250.03	200	50
19	Terminalia arjuna	Arjun	68	0.037	7	0.258	750	193.28	50.25	243.53	121.77	446.48	1500	670
20	Areca catechu	Areca Palm	68	0.037	3	0.110	880	97.19	25.27	122.46	61.23	224.51	120	27
21	Tecoma stans	Ttikoma	68	0.037	3	0.110	580	64.06	16.66	80.72	40.36	147.98	70	10
22	Swietenia	Mehguni	68	0.037	5	0.184	750	138.06	35.90	173.96	86.98	318.92	1000	319
23	Hibiscus rosa-sinensis	Hibiscus	38	0.011	2.5	0.029	700	20.12	5.23	25.35	12.68	46.48	100	5
24	Hyophorbe lagenicaulis	Bottle palm	68	0.037	6	0.221	900	198.8	51.69	250.49	125.24	459.23	60	28
												TOTAL	16,900	6,287

CARBON SEQUESTRATION BY INSTALLATION OF SOLAR SYSTEM:

M/s BSPL has proposed to install 1500Kwp Solar panels to produce non-conventional green energy for office & auxiliary usage. It will be helpful in carbon sequestration as follows shown in Table 7.

Table-6(a)

The capacity of Solar Panel	1500KWp
Av. Units (KW) power generation per day (considering 85% efficiency)	5100 KW/day
Av. Power Generation KW hour	212.5 KWh
Av. Power Generation MW hour	0.213 MWh
Power generation in 24 hours	5.11 MW
Power generation in a year	1865.88MW

Table-6(b)

CARBON SEQUESTRATION	
Total Power generation per year	1865.88 MW
Av Coal consumption per MW	0.90 T
Total Coal consumption for 1865.88MW	1679.29 T
Total Carbon as FC	1125.13 T
Total CO₂e emission Sequestration/Annum	5149.40 T

Table 05 shows that the total CO₂e sequestration potential from greenbelt development (16900 nos. trees) is **6287 tons CO₂ e/Annum**. This number is aimed to be maintained on a yearly basis target by plantations & gap filling to reduce & sequester CO₂ e emissions.

In addition to afforestation, installation of the solar panel shall contribute carbon sequestration up to **5149.40 CO₂e/Annum** i.e. around 14.10Ton/day (Table 6a & 6b).

Thus, through various small-scale & large-scale methodologies, the organization aims to minimize its carbon footprint.

CONCLUSION

M/s Bravo Sponge Iron Private limited (BSIPL) is committed to reducing the overall Green House Gases and Ambient pollution levels by adopting cleaner technologies and carrying out ecological development activities. The company aims to reduce carbon emissions by introducing different energy-efficient technologies with usages of renewable energy resources, Further, with the implementation of Carbon capture and storage (CCS) plants in steel industries, steel plants could progress to become near-zero emitters of CO₂. The commercial viability of CCS partly depends on the price of carbon emissions which is set by government policy. Developing new technologies, such as the Hlsarna process, that are designed to generate a nitrogen-free and CO₂-rich off gas which will make CO₂ capture & control easier and cheaper.

To conclude, no single option can yield the necessary CO₂ emission reductions but a combination of technologies available can be retrofitted to achieve significant reductions, which is possible after commercial deployment of the same by the Government of India.

Annexure-14

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

JANUARY

2023



BRAVO SPONGE IRON PVT. LIMITED

RISK & DISASTER MANAGEMENT PLAN

LOCATION

VILL-MAHUDA PO-RUKNI, PS- PARA, DIST- PURULIA-723145



Risk and Disaster Management Plan

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3	Manpower and working shift	4
4	Nature of Hazards	4
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6	Inventory of Raw Material and Hazardous Waste	7-8
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8	Identification of Hazards	9
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10	Action Plan for Risk & Disaster Management	14
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13	Emergency Command Structure	21
14	Emergency Contact Numbers	22





SHAKAMBHARI
GROUP

M/s Bravo Sponge Iron Pvt. Limited.

Vill: Mahuda, P.O: Raghunathpur, District: Purulia, (West Bengal)

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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
- 2 x 0.95 MTPA Pellet plant with grinding facility.
- 12 x 4000 Nm³ Producer Gas Plant
- 1 x 350 TPD DRI Kiln with WHRB
- 13.9 MW Capacity power plant

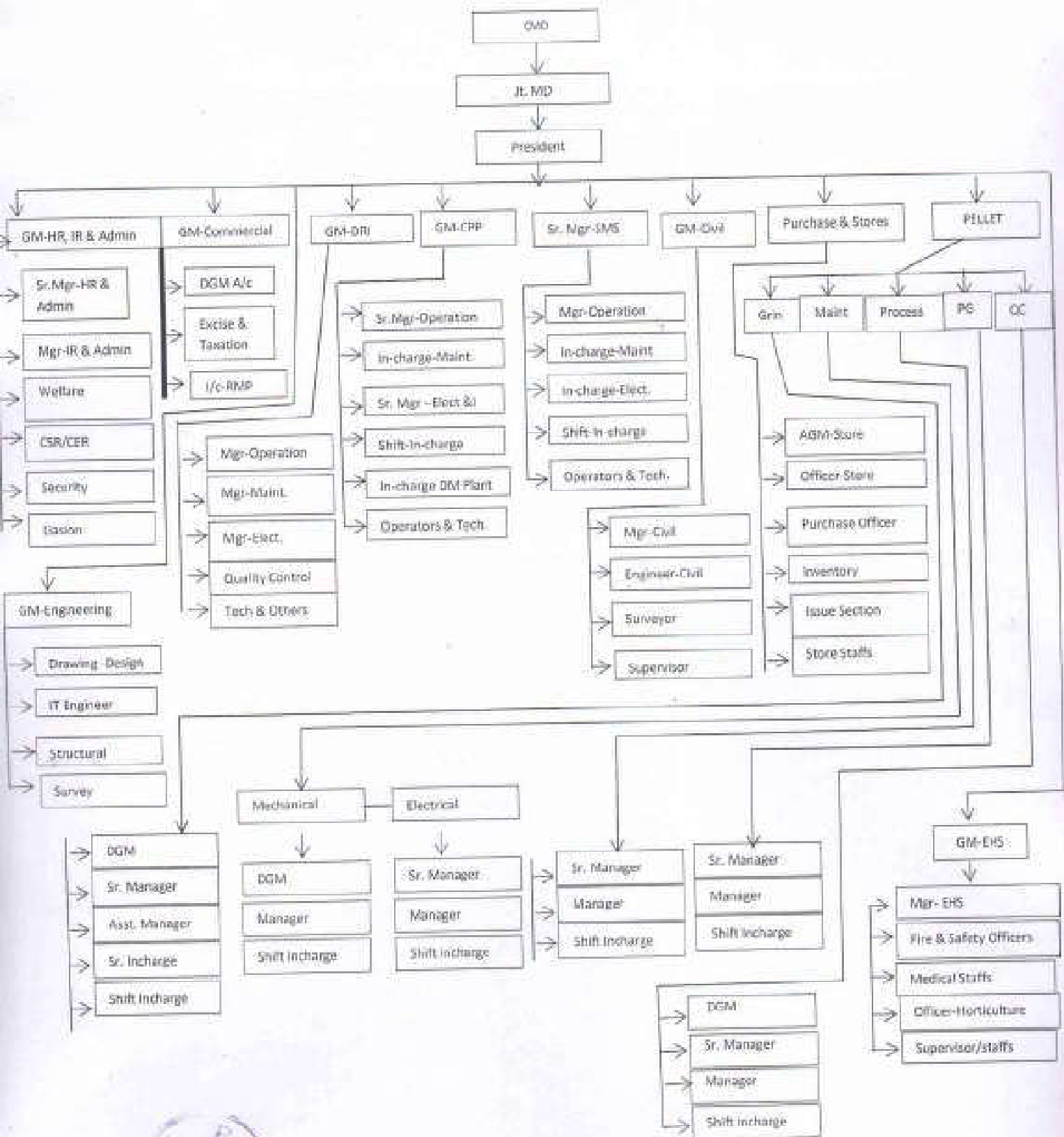
Under Implementation Project
1x15 T Induction Furnace

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

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

Risk and Disaster Management Plan

Organizational Structure:



Signature

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
1.	A	06:00-14:00 Hrs	285
2.	B	14:00-22:00 Hrs	450
3.	C	22:00-06:00 Hrs	360
4.	G	09:00-18:00 Hrs (Lunch Break: 13:00-14:00 Hrs)	512
Total			1607

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 Oil, 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



 SHAKAMBHARI GROUP	M/s Bravo Sponge Iron Pvt. Limited, Vill: Mahuda, P.O: Raghunathpur, District: Purulia, (West Bengal) Risk and Disaster Management Plan	Page 5
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PROCESS DESCRIPTION (In Brief)

> DRI

Sponge iron is manufactured through the coal-based route in which iron ore is 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 in-plant 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).



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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 further 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.

➤ **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



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



➤ 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 DRI kiln cold start up (Under Ground). As per norms of "explosive authority"	1 X 20 KL
2	LDO ALL MS VERTICAL TANK PLACED	2 X 200KL 2 x 25KL

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



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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" demarked.
	LDO	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" demarked.
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, 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.
Heat Exposure	SMS, CCP, DRI, PELLET PLANT, & PCP	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



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		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 & Alarm 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.



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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.



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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)

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.



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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.
- 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/Santalidih and Purulia fire station, if required.
- Send communications to District Hospital Purulia for rendering services.
- Inform the relatives of casualties and send them to their residence or hospital as necessary requirement.



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- 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.

ACTION PLAN FOR RISK AND DISASTER MANAGEMENT

STEP NO	INITIATOR	ACTION TO TAKE
1.	The person noticing the emergency	• 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.
2.	Combat team Leader (CTL)	• 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. • Take charge of the situation and put down the emergency by extinguish fire through firefighters. • To start combating, shut-down equipment's, arrest the leakage of gas/fire.
3.	Site Incident Controller (SIC)	• Inform works Main Controller (WMC) and rush to emergency site. • Discuss with Combat Team Leader (CTL), assesses the situation and call the Rescue Team Leader (RTL) & Auxiliary Team Leader (ATL). • Organize the Rescue Team and Auxiliary Team and send the rescue Team to site. • Arrange to evacuate the unwanted persons and call for additional help. • Pass information to the works main controller (WMC) periodically about the position at site.
4.	Works main Controller (WMC)	• Rush to emergency site and observe the ongoing activities. • Take stock of the situation in consultation with the SIC. • Move to Emergency Control Room. • Take decision on declaration for emergency. • Advise Auxiliary Team Leader to inform the statutory authorities and seek help of mutual aid from partners as required. • Decide on declaration to end emergency. • Ensure that the emergency operations are recorded as per chronologically.



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



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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.
- Auxillary 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.
- Auxillary 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.



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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.



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

FACILITIES AVAILABLE

Fire Hydrant System

For the control fire incident water pipe line spread at designated place in fire prone operation area. Suitable capacity pumps are connected with water storage tank of 25,000M³ sufficient capacities to mitigate the water requirement for firefighting.

Fire Extinguishers

Required types of fire extinguishers are provided at different locations of the plant.

Fire Buckets

Fire buckets filled with dry sand are provided 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. Telephone directory is available in all the departments.

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 sent to referred 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,



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Security Office-Main gate,

General Canteen.

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 or 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.



Risk and Disaster Management Plan**ELEMENTS OF DISASTER MANAGEMENT PLAN:**

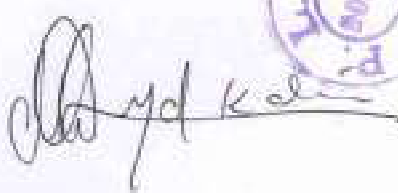
In order to effectively achieve the above mentioned objectives, the critical elements of the Disaster management plan (DMP) are follows;

- 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.



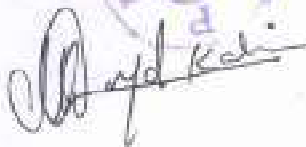

Risk and Disaster Management Plan

EMERGENCY COMMAND STRUCTURE

Works Main Controller (WMC)
Mr. Sanjay Kumar Singh - President

Site Incident Controller (SIC)
Mr. Rewati Raman Pathak (Sr.GM)
Mr. Mahesh Rana (Sr. DGM-Pellet plant)
Mr. Sanjeev Kr Singh (AGM-CPP)
Mr. Sumanta Nandi (AGM-SMS)

Auxiliary Team Leader (ATL)	Combat Team Leader (CTL)	Rescue Team Leader (RTL)
1. Mr. Mrityunjoy Chattopadhyay (Group Head,HR,Admin & IR)	1. Mr. RK Sarangi (DGM-Pellet plant)	1. Mr. Arun Singh (DGM-DRI)
2. Mr. R. K. Mishra (GM-EHS)	2. Mr. Balwant Singh (Manager-CPP)	2. Mr. Arvind Rai (AGM-Security)
3. Mr. Srikanth Mandal (HR&IR)	3. Mr. Sanatan Singh (Dy. Manager-Mech.)	3. Mr. Rajiv Mukherjee (AGM-IT, Utility & Electrical)
4. Mr. Debasish Tewary (Admin & IR)	4. Mr. Sanjay Dubey Security Officer	4. Mr. Mr. Baljeet Singh (AGM-DRI)
5. Mr. K.N Singh (Sr. DGM- Accounts.)	5. Mr. Sanjay Pandit (Forman-CCM)	4 Mr. Mohammad Kalim (Manager-EHS)





SHAKAMBHARI
GROUP

M/s Bravo Sponge Iron Pvt. Limited,

VIII- Mahuda, P.O: Raghunathpur, District: Purulia, (West Bengal)

Page | 22

Risk and Disaster Management Plan

Members	Members	Members
1. Mr. Sunil Shaw (Dy. manager-Admin.)	1. Mr. Soumitro Shee Sr. Mgr-Electrical	1. Mr. K.J Lawrence AGM Stores
2. Mr. Sandeep paul (Asst. Manager-HR)	2. Mr. Vijay Singh Manager-Mechanical	2. Mr. Syed Hassan Safety Officer
3. Subhasis Pradhan (Asst. Manager-Esic)	3. Mr. Abani Mahata Sr. Safety Officer	3. Mr. Abhilash Kumar Manager-Electrical
4. Mr. Rajesh Mondal (In-Charge OHC)	4. Mr. P S Dubey Sr. Security Officer	4. Mr. Rahul Kumar Security Officer
5. Rinku Singh (Security Officer)	5. Mr. Mahadev Samanta (In charge-Utility)	

[Signature]

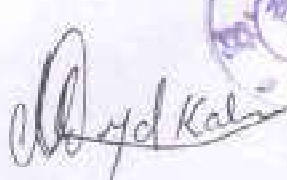
Risk and Disaster Management Plan

TELEPHONE NUMBERS OF EMERGENCY COMMAND TEAM

Sl No.	Name	Position in Team	Mob. Number
1	Mr. Sanjay Kumar Singh	Workes Main Controller (WMC)	8695605669
2	Mr. Rewati Raman Pathak	Site Incident Controller (SIC)	8895813616
3	Mr. Sanjeev Kr Singh		7004691274
4	Mr. Mahesh Rana		7076999733
5	Mr. Sumanta Nandi		7001860652
6	Mr. Mrityunjoy Chattopadhyay	Auxiliary Team Leader (ATL)	8420393931
7	Mr. R. K. Mishra		8695621900
8	Mr. Srikanth Mondal		7719356455
9	Mr. R K Sarangi	Combat Team Leader (CTL)	7432055308
10	Mr. Balwant Singh		8085840064
11	Mr. Sanjay Pandit		8158952815
12	Mr. Sanatan Singh		7718508774
13	Mr. Arun Singh	Rescue Team Leader (RTL)	8839604966
14	Mr. Arvind Rai		7076999736
15	Mr. Rajiv Mukherjee		7547906800
16	Mr. Mohammad Kalim		7605035952

EMERGENCY CONTACT NUMBERS:

Sl No.	Name	Mob. Number	PAX. No.
1	Factory Main Gate	8367850095	NA
2	Factory Security In-charge	7076999736	
3	Factory Medical Unit/Ambulance	7548975623	
4	Govt. Ambulance Service	101	
5	Factory Safety officers	7605035952/8420242216	
6	District Magistrate (Purulia)	8373068601	03252-222 302
7	Superintendent of Police	8145500325	03252-222 304
8	Chief Medical Officer		03251-255208
9	ADM (C),	8373068602	03252-222120
10	OC Disaster Management	7872488802	-
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 Raghunathpur	8504027313/314	03251-203550
15	Fire Station Santaldih	8584027312	03251-260238
16	Govt. Hospital Salka	-	03251-255208
17	Police Station Para	8145500375	03251-266330




Annexure-15

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, 5th Floor, Room No. : 9, Kolkata 700 001.

Mobile : 9433120475

E-mail : pioneersafetyindustries@gmail.com / subhroaspioneer@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 contaminants 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.

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.



Form-30

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

Name of the Factory : BRAVO SPONGE IRON PVT. LTD.
 Factory Address : 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				T/W/R Contaminates as given in Schedule II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking sample	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
SMS FURNACE NO B1	Heat Stress	01.12.2022	4	°C	25.2	25.3	31 °C	Globe and Wet Bulb thermometer	02	02	Below TLV	[Signature]	UTTAM MITTA JOYDIP DEY
					25.4								
					25.3								
					25.4								
SMS FURNACE NO B2	Heat Stress	02.12.2022	4	°C	25.2	25.2	31 °C	Globe and Wet Bulb thermometer	03	03	Below TLV	[Signature]	UTTAM MITTA JOYDIP DEY
					25.5								
					27.4								
					27.6								
SMS FURNACE NO C1	Heat Stress	02.12.2022	4	°C	24.1	25.4	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	[Signature]	UTTAM MITTA JOYDIP DEY
					25.5								
					25.8								
					26.1								
SMS FURNACE NO C2	Heat Stress	02.12.2022	4	°C	25.3	26.1	31 °C	Globe and Wet Bulb thermometer	03	02	Below TLV	[Signature]	UTTAM MITTA JOYDIP DEY
					25.6								
					26.4								
					27.1								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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

Name of the Factory : BRAVO SPONGE IRON PVT. LTD.
 Factory Address : VILL. : MORUDA, 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 Concentrations as given in Schedule-II	Sampling Instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short Time Exposure			
SMS FURNACE NO A1	Heat Stress	02.12.2023	4	°C	25.3	25.8	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					25.4								
					26.1								
					26.4								
SMS FURNACE NO A2	Heat Stress	02.12.2023	4	°C	22.1	23.7	31 °C	Globe and Wet Bulb thermometer	03	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					23.4								
					24.5								
					24.7								
SMS FURNACE CRUSHIBLE BASEMENT	Heat Stress	02.12.2023	4	°C	23.4	24.2	31 °C	Globe and Wet Bulb thermometer	00	05	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					23.6								
					24.8								
					24.9								
CCM BILLETS YARD	Heat Stress	02.12.2023	4	°C	22.1	23.4	31 °C	Globe and Wet Bulb thermometer	09	04	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					23.4								
					23.6								
					24.5								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-39

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

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

Location/ Operation Monitored	Identified Contaminates	Date of Measurement	Air borne Contaminates				TWA Contaminates as given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
DRI KILN PLATFORM 01	Heat Stress	08.12.2022	4	°C	27.6	28.2	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MUTTA JOYDIP DEY
					27.5								
					29.2								
					29.1								
DRI KILN PLATFORM 02	Heat Stress	08.12.2022	4	°C	25.2	26.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MUTTA JOYDIP DEY
					25.4								
					26.5								
					27.1								
DRI KILN PLATFORM 03	Heat Stress	08.12.2022	4	°C	26.2	26.8	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MUTTA JOYDIP DEY
					26.3								
					27.4								
					28.2								
DRI KILN PLATFORM 04	Heat Stress	02.12.2022	4	°C	26.3	27.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MUTTA JOYDIP DEY
					26.5								
					27.3								
					27.8								

NB: TLV: Threshold Limit Values

Sk. Abul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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

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 Factory Address : 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 Concentrations as given in Schedule-II	Sampling Instruments used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Persons taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
CCM CASTING FLOOR	Heat Stress	06.12.2022	4	°C	25.4	25.9	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV	[Signature]	UTAM MEHTA JOYDEB DEY
					25.6								
					26.1								
					26.3								
CCM BELLY CUTTING AREA	Heat Stress	06.12.2022	4	°C	28.6	29.1	31 °C	Globe and Wet Bulb thermometer	04	03	Below TLV	[Signature]	UTAM MEHTA JOYDEB DEY
					28.8								
					29.3								
					29.6								
CCM FITTER AREA	Heat Stress	06.12.2022	4	°C	26.3	26.5	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV	[Signature]	UTAM MEHTA JOYDEB DEY
					26.5								
					27.1								
					27.4								
CCM COOLING BED	Heat Stress	07.12.2022	4	°C	23.6	26.2	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTAM MEHTA JOYDEB DEY
					25.8								
					26.4								
					25.8								

NB: TLV: Threshold Limit Values

Sk. Aban Paruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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

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 Factory Address : 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				TWR Contaminates as specified in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
DRI QC LAB	Heat Stress	01.12.2022	4	°C	25.3	26.0	31 °C	Globe and Wet Bulb thermometer	03	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					25.9								
					26.3								
					26.5								
DRI 4 DSC AREA	Heat Stress	01.12.2022	4	°C	27.1	27.6	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					27.3								
					27.6								
					28.2								
DRI 3 DSC AREA	Heat Stress	01.12.2022	4	°C	28.8	26.3	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					28.9								
					26.5								
					26.8								
DRI 4 OUTLET AREA	Heat Stress	01.12.2022	4	°C	26.5	26.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					26.8								
					27.1								
					27.3								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



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 : BRAVO SPONGE IRON PVT. LTD.
 Factory Address : 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 as given in Schedule-11	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
DRI 3 OUTLET AREA	Heat Stress	02.12.2022	4	°C	26.8	27.2	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM METVA JOYDIP DEY
					26.9								
					27.4								
					27.5								
DRI 2 OUTLET AREA	Heat Stress	02.12.2022	4	°C	25.3	25.8	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM METVA JOYDIP DEY
					25.7								
					25.8								
					26.3								
DRI 2 DSC AREA	Heat Stress	02.12.2022	4	°C	26.4	27.1	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM METVA JOYDIP DEY
					26.5								
					27.6								
					27.8								
DRI 1 DSC AREA	Heat Stress	02.12.2022	4	°C	29.8	29.8	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM METVA JOYDIP DEY
					29.6								
					29.9								
					30.1								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



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 : BRAVO SPONGE IRON PVT. LTD.
 Factory Address : 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 as 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)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
DRI 1 OUTLET AREA	Heat Stress	03.12.2023	4	°C	26.5	26.2	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MEITYA JOYDIP DEY
					25.8								
					26.1								
					26.3								
AFBC BOILER DRAIN POINT	Heat Stress	03.12.2023	4	°C	26.2	26.9	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	[Signature]	UTTAM MEITYA JOYDIP DEY
					26.5								
					27.4								
					27.5								
AFBC BOILER FURNACE FLOOR	Heat Stress	03.12.2023	4	°C	28.3	29.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MEITYA JOYDIP DEY
					28.6								
					29.3								
					29.8								
CPP TG FLOOR	Heat Stress	03.12.2023	4	°C	24.3	25.5	31 °C	Globe and Wet Bulb thermometer	02	03	Below TLV	[Signature]	UTTAM MEITYA JOYDIP DEY
					25.6								
					25.8								
					26.4								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-39

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

Name of the Factory : BRAVO SPONGE IRON PVT. LTD.
 Factory Address : 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 as 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)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
WHRB 4 RADIATION AREA	Heat Stress	02.12.2022	4	°C	25.3	25.0	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					25.8								
					26.1								
					26.3								
WHRB 3 RADIATION AREA	Heat Stress	02.12.2022	4	°C	24.6	25.2	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					24.8								
					25.6								
					25.8								
WHRB 2 RADIATION AREA	Heat Stress	02.12.2022	4	°C	24.3	24.9	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					24.5								
					25.1								
					25.6								
WHRB 1 RADIATION AREA	Heat Stress	02.12.2022	4	°C	23.1	23.9	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					23.4								
					24.5								
					24.6								

NR TLV: Threshold Limit Values

Sk. Abul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

Register Containing particular of monitoring of work environment required under section 7-A (3)(E) of the Act

Name of the Factory : BRAVO SPONGE IRON PVT. LTD.
 Factory Address : VILL. : MONUDA, 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 as given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
CPF QCLAB	Heat Stress	02.12.2023	4	°C	22.1	22.6	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					22.5								
					22.8								
					23.1								
SMS FURNACE NO - 6A	Heat Stress	03.12.2023	4	°C	18.5	19.2	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					18.9								
					19.6								
					19.8								
PROJECT WHSE 13.9 NW	Heat Stress	02.12.2023	4	°C	17.2	17.9	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					17.5								
					18.2								
					18.6								
PROJECT DRI 350 DSC FLOOR	Heat Stress	02.12.2023	4	°C	14.2	15.4	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					15.3								
					15.8								
					16.2								

NB: TLV: Threshold Limit Values

Sr. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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

Name of the Factory : BRAVO SPONGE IRON PVT. LTD.
 Factory Address : 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 as given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PROJECT DRI DSC 2ND FLOOR	Heat Stress	03.12.2023	4	°C	14.3	15.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTPAM NETTA JOYDI DEY
					14.8								
					15.4								
					13.6								
PROJECT DRI 350 KEN FLOOR	Heat Stress	03.12.2023	4	°C	12.3	12.9	31 °C	Globe and Wet Bulb thermometer	04	03	Below TLV	[Signature]	UTPAM NETTA JOYDI DEY
					12.5								
					12.8								
					13.8								
PROJECT DRI 350 OUTLET AREA	Heat Stress	03.12.2023	4	°C	15.8	16.1	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTPAM NETTA JOYDI DEY
					15.8								
					16.2								
					16.8								
PROJECT DRI 350 ECTB	Heat Stress	03.12.2023	4	°C	16.5	16.8	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV	[Signature]	UTPAM NETTA JOYDI DEY
					16.8								
					16.9								
					17.8								

NB: TLV: Threshold Limit Values

Sk. Abul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

Register Containing particular of monitoring of work environment required under section 1-A (2)(E) of the Act

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 Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates as given in Schedule-II	Sampling Instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PROJECT DRI DRUM AREA	Heat Stress	03.12.2022	4	°C	24.6	25.6	31 °C	Globe and Wet Bulb thermometer	03	02	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					25.3								
					25.2								
					26.4								
PELLET 01 GOMER FLOOR	Heat Stress	03.12.2022	4	°C	28.3	29.1	31 °C	Globe and Wet Bulb thermometer	03	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					28.6								
					29.4								
					30.1								
PELLET KILN BURNER FLOOR	Heat Stress	03.12.2022	4	°C	28.4	28.6	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					28.6								
					28.8								
					29.3								
PELLET KILN PLATFORM	Heat Stress	03.12.2022	4	°C	29.4	30.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					29.8								
					30.2								
					30.4								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

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PIONEER SAFETY INDUSTRIES

Form-30

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 Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates as 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)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PELLET PLANT TG FLOOR LEFT SIDE	Heat Stress	03.12.2022	4	0C	28.6	29.2	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					28.9								
					29.4								
					29.8								
PELLET PLANT TG BED	Heat Stress	03.12.2022	4	0C	27.4	27.7	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					27.6								
					27.8								
					28.1								
PELLET PLANT TG FLOOR RIGHT SIDE	Heat Stress	03.12.2022	4	0C	28.5	28.0	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					28.7								
					29.3								
					29.4								
PELLET PLANT RETURN FLOOR RIGHT SIDE	Heat Stress	03.12.2022	4	0C	26.1	26.7	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					26.6								
					26.8								
					27.4								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-36

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

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

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates as given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PELLET PLANT TO RETURN LEFT SIDE	Heat Stress	03.12.2022	4	°C	17.5 17.8 18.3 18.6	18.1	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	<i>[Signature]</i>	UTTAM METTA JOYDIP DEY
PELLET PLANT FIRST FLOOR	Heat Stress	03.12.2022	4	°C	16.5 16.8 17.2 17.5	17.0	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	<i>[Signature]</i>	UTTAM METTA JOYDIP DEY
PELLET PLANT COMPRESSOR ROOM	Heat Stress	03.12.2022	4	°C	15.3 15.4 15.7 16.2	15.7	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	<i>[Signature]</i>	UTTAM METTA JOYDIP DEY
PELLET PLANT OC LAB	Heat Stress	03.12.2022	4	°C	18.8 18.7 18.9 19.3	18.9	31 °C	Globe and Wet Bulb thermometer	07	02	Below TLV	<i>[Signature]</i>	UTTAM METTA JOYDIP DEY

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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

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 Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates as given in Schedule-II	Sampling Instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in Block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PELLET PLANT COOLER BASEMENT	Heat Stress	03.12.2022	4	°C	17.2	17.8	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					17.5								
					18.1								
					18.3								
FILTER PRESS WIDE BELT CONVEYOR	Heat Stress	03.12.2022	4	°C	15.3	15.8	31 °C	Globe and Wet Bulb thermometer	01	02	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					15.5								
					15.9								
					16.2								
FILTER PRESS 10 MTR	Heat Stress	03.12.2022	4	°C	14.3	14.9	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					14.6								
					15.2								
					15.3								
FILTER PRESS 10 MTR	Heat Stress	03.12.2022	4	°C	15.2	15.8	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					15.6								
					16.1								
					16.3								

NB: TLV: Threshold limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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 Factory Address : VILL. : MOHUDA, P.O. : RUMKI, P.S. : PARA NEAR RUMKI 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 as given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
FILTER PRESS 12 MTK	Heat Stress	03.12.2022	4	°C	15.3	15.6	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					15.4								
					15.6								
					15.2								
PRIMARY BALL MILL	Heat Stress	03.12.2022	4	°C	15.4	15.6	31 °C	Globe and Wet Bulb thermometer	04	03	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					15.6								
					15.5								
					15.2								
SECONDARY BALL MILL	Heat Stress	03.12.2022	4	°C	14.3	15.0	31 °C	Globe and Wet Bulb thermometer	03	01	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					14.5								
					15.2								
					15.8								
BALL MILL SCRUBER AREA	Heat Stress	03.12.2022	4	°C	14.5	15.0	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTTAM MEHTA JOYDIP DEY
					14.8								
					15.2								
					15.6								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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 Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWR Contaminates as given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
MIXTURE AREA	Heat Stress	01.12.2022	4	°C	14.5	15.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	[Signature]	UTTAM MUTTA JOYDEB DEY
					14.8								
					15.2								
					15.3								
SMS QC LAB	Heat Stress	03.12.2022	4	°C	14.6	15.0	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	[Signature]	UTTAM MUTTA JOYDEB DEY
					14.8								
					15.2								
					15.3								
PROJECT PELLET 2 TO 1ST FLOOR	Heat Stress	03.12.2022	4	°C	16.3	16.9	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MUTTA JOYDEB DEY
					16.8								
					17.1								
					17.5								
PROJECT PELLET 2 KILN PLATFORM	Heat Stress	03.12.2022	4	°C	20.3	21.5	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV	[Signature]	UTTAM MUTTA JOYDEB DEY
					21.5								
					21.6								
					22.4								

NB: TLV: Threshold Limit Values

Sk. Asim Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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 Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates as given in Schedule-II	Sampling Instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PROJECT PELLET 2 TO RETURN FLOOR	Heat Stress	03.12.2022	4	°C	19.3	19.9	31 °C	Globe and Wet Bulb thermometer	02	04	Below TLV	[Signature]	UTTAM MUTTA JOYDIP DEY
					19.7								
					19.8								
					19.5								
PROJECT PELLET 2 SWING CONVEYOR	Heat Stress	03.12.2022	4	°C	19.6	20.5	31 °C	Globe and Wet Bulb thermometer	10	04	Below TLV	[Signature]	UTTAM MUTTA JOYDIP DEY
					20.4								
					20.6								
					21.3								
PROJECT PELLET TG FLOOR	Heat Stress	03.12.2022	4	°C	21.3	21.8	31 °C	Globe and Wet Bulb thermometer	10	02	Below TLV	[Signature]	UTTAM MUTTA JOYDIP DEY
					21.8								
					22.1								
					22.3								
PCP GROUND FLOOR TARPIT AREA	Heat Stress	03.12.2022	4	°C	20.4	20.8	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MUTTA JOYDIP DEY
					20.8								
					20.9								
					21.4								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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 Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates as given in Schedule II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in Block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PGP 4 MTR ASH PAN AREA NO-2	Heat Stress	01.12.2022	4	°C	34.8	25.0	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV	[Signature]	UTTAM MEITYA JOYDEB DEY
					34.8								
					34.9								
					28.6								
PGP 4 MTR ASH PAN AREA NO-3	Heat Stress	03.12.2022	4	°C	24.8	25.5	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV	[Signature]	UTTAM MEITYA JOYDEB DEY
					25.2								
					25.6								
					26.3								
PGP 6 MTR AREA	Heat Stress	03.12.2022	4	°C	20.1	21.0	31 °C	Globe and Wet Bulb thermometer	00	00	Below TLV	[Signature]	UTTAM MEITYA JOYDEB DEY
					20.5								
					21.4								
					21.8								
PGP 8 MTR PACKING AREA NO - 8	Heat Stress	01.12.2022	4	°C	23.1	23.8	31 °C	Globe and Wet Bulb thermometer	08	02	Below TLV	[Signature]	UTTAM MEITYA JOYDEB DEY
					23.4								
					24.1								
					24.5								

NR TLV: Threshold Limit Values

Sk. Aban Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-39

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

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Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates as 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)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PCP 8 MTR PACKING AREA NO-3	Heat Stress	03.12.2022	4	0C	26.3	26.7	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					26.6								
					26.8								
					27.1								
PCP 14 MTR CHARGING	Heat Stress	03.12.2022	4	0C	25.3	25.7	31 °C	Globe and Wet Bulb thermometer	03	02	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					25.4								
					25.6								
					26.3								
PCP 21 MTR COAL STOCK BIN AREA	Heat Stress	03.12.2022	4	0C	24.8	25.5	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					25.2								
					25.6								
					26.3								
PROJECT 13.9 MW ACC BUILDING	Heat Stress	03.12.2022	4	0C	17.2	17.8	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	[Signature]	UTTAM MEHTA JOYDEB DEY
					17.4								
					18.2								
					18.3								

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

Form-30

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 Particulars of sampling : HEAT STRESS

Location/ Operation Monitored	Identified Contaminates	Date of Monitoring	Air borne Contaminates				TWA Contaminates as given in Schedule-II	Sampling instrument used and method	Number of workers exposed at the location being monitored		Remarks	Signature of Person taking samples	Name (in block letters)
			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
BFP PUMP CPP 10 MW AREA	Heat Stress	03.12.2022	4	°C	24.6 24.8 25.1 25.4	25.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	Uttam	UTTAM MUTYA JOYDIP DEY
TO BUILDING 10 MW MCC ROOM	Heat Stress	03.12.2022	4	°C	24.3 24.8 25.4 25.7	25.6	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	Uttam	UTTAM MUTYA JOYDIP DEY
TO TOP FLOOR 10 MW	Heat Stress	03.12.2022	4	°C	23.1 23.5 23.8 24.5	23.7	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	Uttam	UTTAM MUTYA JOYDIP DEY
OLD ACC AREA	Heat Stress	03.12.2022	4	°C	25.5 25.9 27.2 27.6	27.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	Uttam	UTTAM MUTYA JOYDIP DEY

NB: TLV: Threshold Limit Values

Sk. Abdul Faruk

Competent Person



PIONEER SAFETY INDUSTRIES

TABLE 1

Threshold Limit Values for Heat Stress Exposure as per Occupational Safety and Health Administration				
% Work	Workload			
	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
* 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.				



PHOTOGRAPHS OF WORK ZONE MONITORING



Pellet 1 Cooler Floor Photo



TG Bed Photo



PHOTOGRAPHS OF WORK ZONE MONITORING



PELLET 1 BURNER FLOOR



TG Return Area Photo



PHOTOGRAPHS OF WORK ZONE MONITORING



PROJECT WHRB 13.9 MW



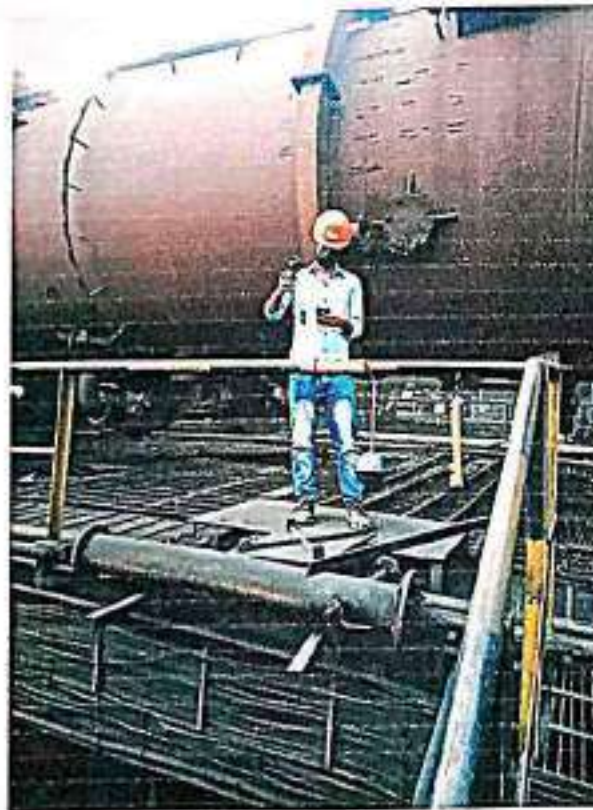
DRI QC LAB HEAT ZONE



PHOTOGRAPHS OF WORK ZONE MONITORING



FURNACE NO B1



DRI 1 KILN AREA



PHOTOGRAPHS OF WORK ZONE MONITORING



DRI 2 KILN AREA



DRI 3 DSC AREA



PHOTOGRAPHS OF WORK ZONE MONITORING



CPP QC LAB



CCM Cooling Belt



PHOTOGRAPHS OF WORK ZONE MONITORING



CCM CASTING



CCM Billet cutting area



PHOTOGRAPHS OF WORK ZONE MONITORING



CCM Billets Yards



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

(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.

No. 472

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.
- iv. The details of tests, examinations and inspections shall be intimated to the Inspector of Factories of the area at least 7 (seven) days in advance for his/her scrutiny failing which this certificate shall stand cancelled.
- v. In case tests, examinations and Inspections have been carried out in a manner which is inconsistent with the 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.
- vi. Copies of examination of certificate in all cases shall be forwarded to the Inspector of Factories of the area.
- vii. The Institution recognized as competent person shall keep the Chief Inspector of Factories informed of the 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.
- viii. The facilities including digital oxygen analyzer with suitable probe, multipoint gas detector & explosimeter 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.

Sk Abdul Faruk
Signature of Sk. Abdul Faruk

Attested

Ashis

Ashis Kumar Shit
Director /Chief Inspector
of Factories, West Bengal



Ashis
Ashis Kumar Shit
Director /Chief Inspector
of Factories, West Bengal

Prepared by : -



PIONEER SAFETY INDUSTRIES

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, 5th Floor,
Room No. 9, Kolkata – 700 001.**

Mobile : 8583992136 / 7003065634 / 9433120475

E-mail : pioneersafetyindustries@gmail.com

Annexure-16



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEERegistration No. _____ Date: 30/1/24Name Suraj Mahato Father/Husband Dhanesh MahatoDepartment SMS-Mentha Age 25 Sex M Blood Group A+Relevant Personal History _____ NoRelevant Family History _____ NoPrelisting Disease if any _____ No**Physical Examination:**Weight 64 KgGeneral Health GoodAnemia _____ NoJaundice _____ NoPulse _____ 90Blood Pressure 120/80RH Factor B/F Hb-14.6, TC-7400, NE-65, EO-03, BA-0, LY-30, MO-00Chest X-Ray Normal

CNS _____

Eye/Ear VA LE/RE-6/6, NG, Normal and Both Ear hearing Satisfactory
Normal

Investigation (if any) _____

Further Advice _____

30/1/24
Checked by
Medical Officer



W.B. GOVT. REGD
BHABHA APPROVED & AERB APPROVED

MONDAL X-RAY CLINIC

Durgamandir Road, Dabor More
Rupnarayanpur, PIN - 713386

X-RAY ☐ DIGITAL X-RAY ☐ DIGITAL ECG ☐ IVP ☐ BA-MEAL ☐ HSG ☐ DENTAL X-RAY ☐ OPG

SUROJ MAHATO..MALE.25YRS

X-RAY-CHEST-PA

REF BY DR.

16.01.24

BONY CAGE OF CHEST NORMAL.

NO ACTIVE LUNG LESION NOTED IN EITHER FIELD.

CARDIAC SHADOW NORMAL.

PLEURAL RECESSES ARE CLEAR.

IMP-NORMAL STUDY.

[Signature]
16/1

Dr. Dipankar Dasgupta

MBBS (Cal) DMRD (Cal)
Radiologist / Sonologist

Working Hours : 8 a.m. to 8 p.m.

Ph. : 9434188982/9635722519
e-mail : mondalxray83@gmail.com



Investigations never confirm the final diagnosis. To be correlate clinically & further investigation.



ASANSOL DISTRICT HOSPITAL
ASANSOL (WEST BENGAL)
S.B. GORAI ROAD

PATIENT NAME

Sukri Maitra

ADDRESS

Phudogarpur, Kach

1964 ISO VALUES

125 250

500 750

1K

1.5K

2K

3K

4K

6K

8K

10K

12K HZ

REGISTRATION NO.

12822

SEX

M

AGE

25Y

DATE

16/11/19

RIGHT EAR (Red)	LEFT EAR (Blue)
AIR	O-O X-X
OPR EAR MASKED	Δ-Δ □-□
NO RESPONSE	♀ ♂
BONE	< >
BONE	< >
OPR EAR MASKED	1 1
HEARING EVALUATION	
PTA	
S.R.T	
PB% CORRECT	
MCL	NO



20	10	0	10	20	30	40	50	60	70	80	90	100	110	120
OTOSCOPY	R	L	TEST	R	L	RINNE	WEBER	BING	SPECIALIST	SISI	TD.T			

PTA	SA
R	20dB
L	16-60dB

Complaint

Ear Medical Issues

Remarks

He has difficulty hearing in L ear.

Recommendations

Ref for L ear to ENT

**Government West Bengal
Asansol District Hospital
Pathology Test Requisition and Report Form**

(48)

Name	Swaraj Mahato.	Age/Sex	25/M
Registration No.	12927.	Date of Collection	16-01-24
Ward/Bed No.		Referring Physician	
Clinical History			
Tests Requested			
Signature of Med. Officer			

Blood Reports

Test	Result	Unit	Ref Range	Test	Result	Unit	Ref Range
Hemoglobin	14.6	g/dl	13-17(M)	Glucose	82	mg/dl	--
TLC	7400	Cells/cmm	4000-10000	Urea		mg/dl	19-45
Neutrophil	65	%	40-80	Creatinine		mg/dl	<1.3
Eosinophil	03	%	1-6	Bilirubin T		mg/dl	<1
Basophil	00	%	<1-2	Bilirubin D		mg/dl	<0.4
Lymphocyte	30	%	20-40	ALT		U/L	<45
Monocyte	02	%	2-10	AST		U/L	<35
Total RBC	5.10	Millions/cmm	4.5-5.5	ALP		U/L	54-369(child) 53-128(Adult)
PCV		%	40-50	Total Protein		g/dl	6.4-8.3
MCV		fl	83-101	Albumin		g/dl	3.5-5.2
MCH		pg	27-32	Cholesterol		mg/dl	<200
MCHC		g/dl	31.5-34.5	Triglyceride		mg/dl	<160
Platelet	1.26L	Cell/cmm	150000-410000	Uric Acid		mg/dl	3.5-7.2
RWD-CV		%	11.6-14	Amylase		U/L	<99
MP		--	--	Lipase		U/L	<60
Malaria Antigen		--	--	CRP		mg/L	<6
Peripheral Smear	DE						

Date:

Medical Officer
Department of Pathology



GUPTA PATHOLOGICAL

RANIGANJ ROAD, MINI PLAZA, RAGHUNATHPUR

• GOVT. REGD. •

Patient Name..... Suraj Mahato Age..... 25+ Sex..... M
Ref. by Dr..... Self Date..... 30/01/24

TOTAL COUNT :

Test	N.Value
W.B.C.per C/c.mm(5000-10000)	
R.B.C.per C/c.mm(1.5-4.5Lac)	
Plateletesper C/c.mm(1.5-4Lac)	

DIFFERENTIAL COUNT :

Test	N.Value
Neutrophil.....%(55-65)	
Lymphocytes.....% (30-40)	
Eosinophils.....% (0-7)	
Monocytes% (0-2)	
Basophils.....% (0)	

Haemoglobin :gm/%
ESR :1st hour 2nd hour

Blood Group :.....A..... Rh. Type positive

Test	N.Value
Blood Sugar (FIR).....mg/dl(70-115)	
Blood Sugar (PP).....mg/dl(upto 140)	
Blood Urea :mg/dl(10 - 45)	
Creatinine :mg/dl(0.5 - 1.5)	
Uric Acidmg/dl(3 - 7)	
Cholesterol :mg/dl(120 - 200)	
Trygliceride :mg/dl(40 - 150)	
HDL :mg/dl(20 - 80)	
LDL :mg/dl(<150)	
VLDL :mg/dl(8 - 22)	
Na ⁺ :mmol/l (135 - 155)	
K ⁺ :mmol/l (3.5 - 5.5)	

Checked by

Dr. M. Mandal
(Pathologist)
Reg. No.: 55170

Asansol District Hospital, Asansol

Patient Information

Name: SURAJ MAHATO
Age: 25 Years

Gender: Male
Mobile: 9064401271

Specimen Information

SRF ID: 1970400629261
Test Type: RTPCR
Report ID: ADH/102831/2024
Date Time of Sample Collection: 16/01/2024 1:58PM
Date Time of Sample Testing: 16/01/2024 5:55PM

Result of SARS-CoV2: Negative
Specimen Type: Throat Swab, Nasal Swab,
Date Time of Sample Received at Lab: 16/01/2024 2:06PM
Date Time of Result Reported: 16/01/2024 5:59PM

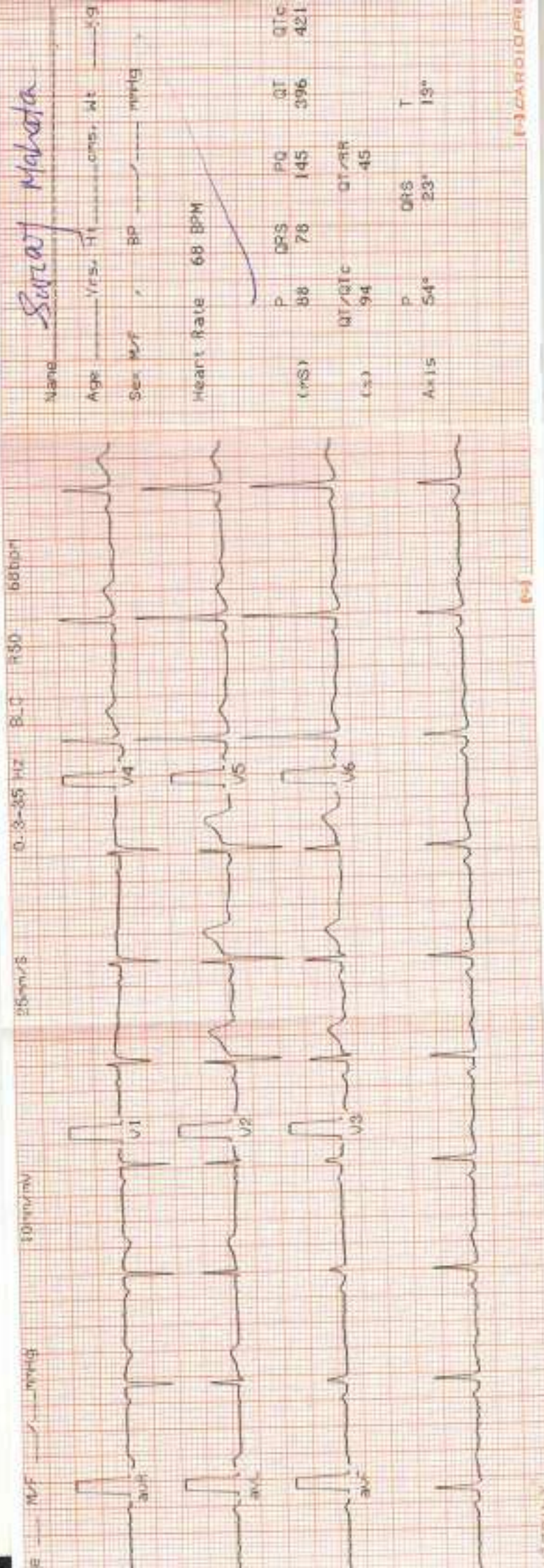
Checked and Approved by:
DR. RUPAK CHATTOPADHYAY



Note: The results relate only to the specimens tested and should be correlated with clinical findings

Interpretation guidance:-

1. Testing of referred clinical specimens was considered on the basis of request / referral received from / through State Surveillance Officer (SSO) of concerned State Integrated Disease Surveillance Programme (IDSP) or any other health care facility affirming requirements of the case definition/s.
2. A single negative test result, particularly if this is from an upper respiratory tract specimen, does not exclude infection*
3. A positive test result is only tentative, and will be reconfirmed by retesting
4. Repeat sampling and testing of lower respiratory specimen is strongly recommended in severe or progressive disease. The repeat specimens may be considered after a gap of 2-4 days after the collection of the first specimen for additional testing if required. *
5. A positive alternate pathogen does not necessarily rule out either, as little is yet known about the role of coinfections
6. Please note that these results are not to be used for any thesis or presentations or for Publication in any Journal without the prior permission of the Director General, ICMR



Name Suraj Mahata

Age 45 yrs. Ht 170 cms. Wt 70 kg

Sex Male BP 100/60 mmHg

Heart Rate 68 BPM

Lead	P	QRS	PQ	QT	QTc
(ms)	88	78	145	396	421
(ms)	94	94	45		
Axis	P 54°	QRS 23°	T 13°		

GENERAL 7

DEPARTMENT OF HEALTH & FAMILY WELFARE
GOVERNMENT OF WEST BENGAL

User Name: Bhaskar Hama 1
Folio No: 2

ASSHOP Patient Card
S.B. Gosal Road, P.O. Asansol, Pin-713301
(PH: 03412 304040)

Name: SURAJ MAHATO [ASSH/OR/2400011764] Day: Tuesday
Sex: Male Age: 25 Yrs: 6 Month: 0 Days: Reg. No: ASSH/RG2400012927
Ref. From: Reg. Date: 16-01-2024 Card No.: ASSH/OR/2400011764
Visit No.: 1 Department: GENERAL Visit Date: 16-01-2024 Time: 11:00 AM
Doctor / Unit Name (DOW): Kalpana Mukherjee/ Sankari Majee/ Samiran Majee/ Saptarshi Ganguly
Room No.: ASSH(01) Entry No.:

Visit No.: 2
Visit Date: 18 JAN 2024
Department: ASANSOL DISTRICT HOSPITAL & SSH
Doctor/Unit:
Entry No.:

Visit No.: 3
Visit Date: 19 JAN 2024
Department:
Doctor/Unit:
Entry No.:

Visit No.: 4
Visit Date:
Department:
Doctor/Unit:
Entry No.:

Clinical Notes

ADVICE



FOR MEDICAL FIT CERTIFICATE
BASIC INVESTIGATIONS

- a) Blood for C, DC, Hb%, Sugar (RBS)
b) ECG
c) X-Ray Chest PA View
d) Eye/ENT/Medicine/Surgery/Obs
& Gynae-Chest up
e) Any Other Investigation (if needed)

Wm RIEKME

Ref No 19/16-2024

16.1.24

MEDICAL OFFICER
ASANSOL DISTRICT HOSPITAL

16/1/24 Eye
Suraj Mahato

Va < 6/6 / 6/6 Plano

CV - Within normal limit

CTA (2)

SRF 629261

Wm fel

Dr. ARITA CHATTOPADHYAY
Reg No: 56599
Medical Officer (EYE)
Asansol Dist. Hospital

Dr. Sankat Kumar Basu
Medical Officer (ENT)
Reg. No. - 49285 (W. B.)
ASANSOL DISTRICT HOSPITAL

DEPARTMENT OF HEALTH & FAMILY WELFARE
GOVERNMENT OF WEST BENGAL

OPD Patient Card

Clinical Notes

ADVICE

16.1.24
Pt is clinically fit for surgical post of view

RTPCR
test

Adi

10/1/24

C/S/B-MPD

BP - 130/82 mmHg
PR - 97 bts/min
CR - 107 mmHg
13/1/24 (recd clinic)

present - non

Person is thus called

Fit

19.1.24

Recd war
Wt. 74.6
Pulse 82

Platlet
1.76

Dr. Md. Ruhul Amin
Reg. No.: 46888(W. B.)
Medical Officer (Surgeon)
Asansol District Hospital

DR. SOMNATH GUPTA
Medical Officer (Physician)
Reg. No.: 49099 (WBMC)
Asansol District Hospital

MCR no - 1050

Dt. - 19/01/2024

CERTIFICATE OF MEDICAL FITNESS

Name (in Block Letters): SURAJ MAHATO
Father's Name: DHANESH MAHATO
Height: 5'6" Weight: 64 Kg Chest: 40"
Heart & Lungs: Normal
Vision: L: 6/6 R: 6/6
Colour Vision: Normal
Hearing: within normal limit
Hernia / Hydrocele / Piles: No
Remarks: Clinically fit at Present

I certify that I have carefully examined Sri/Smt. SURAJ MAHATO
son/daughter of Sri Dhanesh Mahato who has signed in my
presence. He / She has no mental and physical disease and is fit.

Suraj Mahato
Signature of the Candidate

Place: ADH
Date: 19/01/2024



N.D.S. 19/01/2024
Signature of Medical Officer/Practitioner
with legible seal
Dr. Nikhil Chandra Das
Superintendent
Registration No. Reg. No. - 53940 (W. B.)
ASANSOL DISTRICT HOSPITAL

Prescribed Medical Standards for Admission

- The candidate should possess good health and physique with sound mind. He / she should not be suffering from any disease, physical or mental infirmity.

Allowable Defects in Presight

- Myopia or Myopic Astigmatism: Total strength of correcting lens not exceeding 3.5 Dioptre and acuteness of vision after correction (a) 6/9 in one eye and (b) 6/6 in another.
- Hyper-metropia not exceeding 14 Dioptre or Hypermetropic Astigmatism: Strength of correcting lens not exceeding 4 Dioptre and acuteness of vision after correction (a) 6/9 in one eye and (b) 6/6 in another.
- The candidates should not be colour blind.



CHEST
P4

SURAJ MAHA TO 25YRS M
MONDAL X RAY CLINIC, RUPNARAYANPUR

5.0 2024.3 23.00 PM

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BRAVO SPONGE

VILMAHAR

HEALTH CARD



Registration No. 17-12

Name Suraj Kumar Singh Father/Husband Laxman Singh

Department GP Age 30 Sex M Blood Group AB +

Present Illness

History

Examination

Investigation

Diagnosis

Plan of Treatment

Prognosis

Referral

Remarks 8.5

Signature

Date 15-4-2024 Time 8-10 ESR

Temp Pulse BP

Weight Height

Eye Ear Nose Throat

Chest Abdomen Genitals

Spinal Cord Nerves

Other Advice

01/07
Clinic

MOPHC
16/01/2024 5:23:03 PM

CHEST
P.A.

SURAJ MAHA TO 25YRS M
MONDAL X RAY CLINIC RUPNARAYANPUR



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 01/02/24

Name Sumanjeet Kumar Singh Father/Husband Lakshman Singh

Department C.P.P Age 28 yrs Sex M Blood Group AB+

Relevant Personal History NA

Relevant Family History NA

Preexisting Disease if any NA

Physical Examination:

Weight 62 kg

General Health Good

Anemia Absent

Jaundice absent

Pulse 85

Blood Pressure 120/85

RH Factor 13/E Hb-12.6, TC-4.10, Ne-50, Ly-40, Eo-3, Mo-2, B-00, ESR-10.

Chest Normal

CNS _____

Eye/Ear 4/E-6/A. V.C. Both-Ear hearing Sensitivity Normal

Investigation (if any) _____

Further Advice _____

01/02/24

Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 15/12/23

Name SARBESWAR KUNDU Father/Husband AMANGA KUNDU

Department PELLET (Elec.) Age 31+ Sex M Blood Group O+

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 97 kg

Good.

General Health _____

Anemia Absent.

Jaundice Absent.

Pulse 70/min.

Blood Pressure 125/90 mmHg.

RH Factor Blod ESR-20, Hb-15.6 TLC-8600, NE-76, LY-13 EOS-07, Mon-04, Bas-00

Chest Normal.

CNS Normal.

Eye/Ear 2e 2e 6/9 RE-6/9

Investigation (if any) _____

Further Advice _____

15/12/23

Checked by
Medical Officer

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 15/12/23

Name Abhishek Mondal Father/Husband Lt. Brigadier Mondal

Department _____ Age 19 Sex M Blood Group O+

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No

Physical Examination:

Weight 48 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse oxy- 98, pulse - 77 mm -

Blood Pressure 115/75 mm.

RH Factor Revised - Hb-15.2, Tc-9.200, Hct-70, Hm-21, Mch-4, ESR-05, ESR-1st-9mm, PPD-82

Chest X-Ray- Normal, ECG- Normal.

CNS _____

Eye/Ear RE-6/6, LE-6/6, Normal, Ear, Right Left Hearing Normal.

Investigation (if any) _____

Further Advice _____

15/12/23

Checked by
Medical Officer



Emp Code - Bloro 3808

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BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 15/12/23

Name PRANAB KUMAR Father/Husband MANORANJAN KUMAR

Department _____ Age 21 Sex Male Blood Group A+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 54kg.

General Health Good

Anemia Absent

Jaundice Absent

Pulse 99, Pulse-88/min

Blood Pressure 100/77 mmHg

RH Factor B+ve HB-15, TC-6300 NE-62, LY-31, MM-04, EOS-03. Auto CD-1st 0 SMA ATT-844

Chest X-Ray- Normal, ECG- Normal.

CNS _____

Eye/Ear RE-6/6 - LF-6/6 Normal, Ear: Right Left Normal.

Investigation (if any) _____

Further Advice _____

15/12/23
Checked by
Medical Officer

EMP. code - B10003799

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SHAKHESWAR
GROUP

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 15/12/23

Name Jayanta Bauri Father/Husband Swapan kr Bauri

Department Gen. Entry cum. Age 32 Sex M Blood Group B+

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No

Physical Examination:

Weight 81 Kg

General Health Good

Anemia No

Jaundice No

Pulse 90

Blood Pressure 130/80

RH Factor B/F Hb-12.2, TC-9850, ESR-20, NE-68, LY-25, E-05
M-2, B-0

Chest ECL Normal

CNS _____

Eye/Ear Eye L/R C/L, N6, Normal.

Investigation (if any) _____

Further Advice _____

15/12/23
Checked by
Medical Officer

SHAKUNBHARI
GROUP

BRAVO SPONGE IRON PVT. LIMITED

Vili-Mahuda, PO-Rukhi, Dist-Purulia (WB)

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 15/12/23Name Sintu Rakzak Father/Husband Jiten RakzakDepartment _____ Age 22 Sex Male Blood Group B+Relevant Personal History NORelevant Family History NOPrelisting Disease if any NO

Physical Examination:

Weight 53 Kg.General Health GoodAnemia AbsentJaundice AbsentPulse 98, 9 Pulse - 72/minBlood Pressure 115/75 Normal - MMHgRH Factor Blod: Hb - 13.7 g/l, T.C - 9700 Ne - 68 Lg - 23 Mm - 0.4, Eos - 0.5, Bas - 0.0Chest X-ray - Normal, ECG - Normal.

CNS _____

Eye/Ear RE - 6/6 - LE - 6/6 - Normal, Reflex Right & Left Normal

Investigation (if any) _____

Further Advice _____


15/12/23
 Checked by
 Medical Officer

Due

Smp Code - 3807

60

SHAKAMBAR
GROUP

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 15/12/23

Name DHARANI KUMAR ✓ Father/Husband Manoranjan kumar

Department _____ Age 22 Sex Male Blood Group B Negative

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 56 kg.

General Health Good

Anemia Absent

Jaundice Absent

Pulse oxy-98, pulse-81/mort

Blood Pressure BP-130/87 mmHg

RH Factor Hb-15.2 gm, Tc-11,800, NE-75, Lg-20, Mon-02, Eos-03, Bc-00 ESR-180-15 mm
PPB-89

Chest X-Ray-Normal, ECG-Normal.

CNS _____

Eye/Ear RE 6/6 - LE 6/6 Normal. Soc. Right & Left Normal.

Investigation (if any) _____

Further Advice _____

15/12/23
Checked by
Medical Officer



Encode - Bioro 3806

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BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 15/12/23

Name ROHIT RAJWAR Father/Husband RAMU RAJWAR

Department _____ Age 22 Sex MALE Blood Group A+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 49

General Health Good

Anemia Absent

Jaundice Absent

Pulse Oxy-99, Pulse-70/min

Blood Pressure BP-110/70 mm.

RH Factor ^{Blood} Hb-14.6 g/L, Te-9.100 NE-66, Lg-22, Mat-04, Ery-0.08, RD-187, 10mm TFB-95

Chest X-Ray- Normal, ECG- Normal.

CNS _____

Eye/Ear RE-6/6-LF-6/6 Normal, Ear- Right & Left Normal.

Investigation (if any) _____

Further Advice _____

15/12/23
Checked by
Medical Officer

EMP. code- B10003800

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BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 22/12/23

Name Ganesh Bauri Father/Husband Tarupada Bauri

Department HR-Sup Age 29 Sex M Blood Group A+

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 65Kg

General Health Good

Anemia NO

Jaundice NO

Pulse 96/88 - Regular

Blood Pressure 120/80 mm Hg

^{B/F} RH Factor T.C-7450, NE-65, Ly-27, Mo-03, Eo-05, Ba-10, ESR-12, Hb-18.2

Chest Normal

CNS Normal

Eye/Ear Eye - RE/LE - 6/6 - N-6 , Both ear hearing sensitivity Normal

Investigation (if any) _____

Further Advice _____

22/12/23

Checked by
Medical Officer

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 22/12/23

Name Bhudeb Acheryee Father/Husband Let. Amananda Gopal Acheryee

Department DRS-100 Proc Age 42 Sex M Blood Group B+

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No

Physical Examination:

Weight 62 kg

General Health Good

Anemia No

Jaundice No

Pulse 100 /min

Blood Pressure 130/85 mm Hg

RH Factor B⁺ Hb-14.5g / TLC-9500-NE-60, LY-35, ES-02, Bas-00 ESR-15thm-08

Chest X-Ray - Normal

CNS _____

Eye/Ear R 6/6, LE 6/6 - Normal. Both hearing Sensitivity Normal.

Investigation (if any) _____

Further Advice _____

22/12/23
Checked by
Medical Officer

BRAVO SPONGE IRON PVT. LIMITED

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

88 OK

HEALTH CARD OF EMPLOYEE

Registration No _____ Date: 20/12/23Name Somdeb Banerjee Father/Husband Sutata BanerjeeDepartment Power Plant Age 38 Sex Male Blood Group A+Relevant Personal History NORelevant Family History NOPrelisting Disease if any NO

Physical Examination:

Weight 84 KgGeneral Health Good.Anemia NOJaundice NOPulse Oxy-96 / Pulk-112 per min.Blood Pressure 130/85 mmHgRH Factor Blvd - Hb - 16.8 g% / Tc - 9.100 NE-55, Ly-35, Fes-10, MC - 00 BN-00, SSD 1st 10 u.Chest NormalCNS Normal.Eye/Ear EYE - RE - OG, LE G19, NG16. Both ear Normal.

Investigation (if any) _____

Further Advice _____

Emp code - B10003810


20/12/23
Checked by
Medical Officer

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 22/11/23

Name Ildar Ch. Roui Father/Husband Amarendra Roui

Department S.M.S. Male Age 33 year Sex M Blood Group O+

Relevant Personal History No

Relevant Family History No

Preexisting Disease if any No

Physical Examination:

Weight 63 kg.

General Health Good.

Anemia Absent

Jaundice Absent

Pulse 87/minute

Blood Pressure 120/80 mmHg.

RH Factor Blad. Hb-14.8 g/dl, ESR-38, Tc, 8500 cumm, Wc-567, Ly-357, Fc-57, Mch-47, BA-01

Chest Normal

CNS Normal

Eye/Ear EYE - VA R - 6/6 - Normal

Investigation (if any) -

Further Advice -

27/11/23
Checked by
Medical Officer

Empid-810003788

BRAVO SPONGE IRON PVT. LIMITED

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

86

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 28/11/23.

Name Mitam Kumbhakar Father/Husband Kenaram Kumbhakar.

Department Pellet Mach. Age 26 year Sex M Blood Group O-

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No

Physical Examination:

Weight 85 Kgs

General Health Good.

Anemia Absent

Jaundice Absent

Pulse 85/minute.

Blood Pressure 120/80 mmHg.

RH Factor Blad. ESR-08, Hb-14.2gm/l, TC-7mm cu mm, Ne 54%, Ly-35%, EO-26%, 130-40 B/L.

Chest Normal

CNS Normal.

Eye/Ear LE-R/L AEE/C Both ear Sensitivity Normal.

Investigation (if any) _____

Further Advice _____

28/11/23
Checked by
Medical Officer

BRAVO SPONGE IRON PVT. LIMITED

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

49

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 22/11/23

Name Ranjam Kumar Father/Husband Ram Chandra Singh

Department S.M.S. Age 22 Sex M Blood Group A+

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No

Physical Examination:

Weight 69 Kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 82

Blood Pressure 120/80

RFT Factor Tc-9000 cumm, Ne-68, Ly-19, Eo-03, Mo-00, BA-00, ESR-12 mm.

Chest X-Ray - Normal

CNS Normal

Eye/Ear Eye R/E-G/G, LE/G/G, Ear Sensivity Normal

Investigation (if any) _____

Further Advice _____

Checked by
Medical Officer

B1000 3859

67



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 30/11/24

Name Bahadur Ansary Father/Husband S.K. Nasir Ansary

Department rolled Age 33 Sex M Blood Group O+

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 62 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 71/min OSA-98

Blood Pressure 109/74 mm

RH Factor Blood Hb-14.2g, Tc-9.40g, Dc-NE-58, Lg-32, E-9, M-0.1, B-0.0, R-0.1, S-0.1, W-0.5

Chest Normal

CNS _____

Eye/Ear Left eye 6/6, Right eye-6/6 Colour vision Normal

Investigation (if any) _____

Further Advice _____

30/11/24
Checked by
Medical Officer

BRAVO SPONGE IRON PVT. LIMITED

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

41

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 30/1/24Name Tapas Bhowi Father/Husband Ripak BhowiDepartment Pellet-Mechanical Age 27 yrs. Sex M Blood Group A+veRelevant Personal History NORelevant Family History NOPrelisting Disease if any NO

Physical Examination:

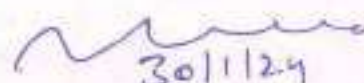
Weight 57 kg.General Health Good.Anemia NOJaundice NOPulse 98-98, Pulse - 86/minuteBlood Pressure 110/80 mm.Blood for -
RH Factor TC, 9700kum, Hb: 13.8g ESR: 12 mm/hr No-63%, Le-30%, Fe-03%, Mo-04%, B+veChest Normal.

CNS _____

Eye/Ear Right eye 6/6, Left eye 6/6 Color vision Normal.

Investigation (if any) _____

Further Advice _____


30/1/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 02/01/24

Name Akash Bauri Father/Husband Mr. Mathur Bauri

Department Pellet Grinding Age 27 yrs Sex Male Blood Group O+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 57 kg

General Health Good

Anemia NO

Jaundice NO

Pulse 99 / 57-PA

Blood Pressure 132/80 mmHg

RH Factor Blood 13.8 gm / Tact-850, De, Ne-68, Ly-27, ES-02, Mon-p 3 1st hour - 8 ml

Chest X Ray Normal

CNS _____

Eye/Ear Right eye 6/6, Left eye 6/6 Color vision Normal

Investigation (if any) _____

Further Advice _____

02/01/24
Checked by
Medical Officer

Emp code - B10003814



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 01/02/24

Name Rautam Ku. Nomin. Father/Husband Nanda Lal Nomin.

Department _____ Age 40 year Sex M Blood Group B+

Relevant Personal History No

Relevant Family History No

Preexisting Disease if any No

Physical Examination:

Weight 65 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 88

Blood Pressure 120/85

^{BF} R Factor Nb -15.1, Tc-4.32 Ne-66 Ly 23, Eo-07, Mo-04 Ba-00, ESR-14.

Chest Normal

CNS _____

Eye/Ear LE/REV 4/6 NG, Both ear hearing sensitivity Normal

Investigation (if any) _____

Further Advice _____

01/02/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 30/11/24

Name Ranjit kr Nath Father/Husband Lt. Anil baran Nath

Department Security sup Age 43 Sex M Blood Group B+

Relevant Personal History NG

Relevant Family History Absent

Prelisting Disease if any NG

Physical Examination:

Weight 65 Kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 99/86

Blood Pressure 130/80

RH Factor B/F Hb-15.6, TC-6400, NE-63, Ly-33, MO-00, EO-04, G-O, ESR-1

Chest X-Ray Normal

CNS _____

Eye/Ear LE/RE - VAG/C Both ear hearing Sensitivity Normal

Investigation (if any) _____

Further Advice _____

30/11/24

Checked by
Medical Officer

EMP. code- B1000 3832

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SHANKAR
GROUP

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date 15/01/2024Name SUKUMAR KUNDU Father/Husband BARANASI KUNDUDepartment Pellet ESI Age 32 yrs Sex MALE Blood Group B+Relevant Personal History NORelevant Family History NOPrelisting Disease if any NO

Physical Examination:

Weight 94 kgGeneral Health Good.Anemia AbsentJaundice Absent.Pulse 82/97Blood Pressure 130/90RH Factor ABO: 16.4 gm - TC - 10900, DCN - 76, 2g - 20, Hb - 02, ESR - 02
15.00, Sep - 15Chest Normal.

CNS _____

Eye/Ear Left eye - 6/6, Right eye - 6/6 - color vision Normal.

Investigation (if any) _____

Further Advice _____

15/01/24
Checked by
Medical Officer

B100 3833

BRUNNEN
GMBH

BRAVO SPONGE IRON P.V.I. LIMITED

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

72

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date 15/01/2024Name TAPAS DUTTA Father/Husband TAPAN DUTTADepartment Pellet ESI Age 34 Sex M Blood Group O+Relevant Personal History NORelevant Family History NOPreexisting Disease if any NO

Physical Examination:

Weight 73 kgGeneral Health GoodAnemia AbsentJaundice AbsentPulse PR - 78/mBlood Pressure 130/85 mmRt Factor Blk Hb-16.2g/dl TC-14800, Drc-50, Lym-42, Mon-02, Seps-06 RBC-40Chest Normal

CNS _____

Eye/Ear Left eye 6/6, Right eye 6/6 vision Normal

Investigation (if any) _____

Further Advice _____


 15/01/24
 Checked by
 Medical Officer

B1000 3839

(66)

SHAKUNBARI
GROUP

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date 30/11/24Name Shantanu Chatterjee Father/Husband Prasanto ChatterjeeDepartment EPP-Operation Age 24 Sex M Blood Group AB+Relevant Personal History NORelevant Family History NOPreexisting Disease if any NO

Physical Examination:

Weight 62KgGeneral Health GoodAnemia AbsentJaundice AbsentPulse 88 per min - 98Blood Pressure 128/82 mmRH Factor Anti-Hb - 13.18n, TL - 8900, DC, NE - 52, 24-41, 2-5-06, Mm - 01, Hg - 00, ESR 1st hr - 29mmChest Normal

CNS _____

Eye/Ear Left eye 6/6, Right eye 6/6 color vision Normal

Investigation (if any) _____

Further Advice _____


30/11/24
 Checked by
 Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 30/1/24

Name Partha Sarathi Pal Father/Husband Bendiphan Pal

Department Accounts Age 34 Sex M Blood Group A+

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 57 Kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 102/min 0x9 99

Blood Pressure 110/85 mm

RH Factor Blood 116 131 gm / TLC-8900, DC-NE-60, LY-33, EOS-04, Mon-03, Bas-00, 15k hem-250 - 27 mm

Chest Normal

CNS _____

Eye/Ear Left eye 6/9, Right eye 6/9 Normal

Investigation (if any) _____

Further Advice _____

30/1/24
Checked by
Medical Officer

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date 30/11/24Name ANIMESH GORAI Father/Husband BIKASH GORAIDepartment pellet &c Age 32 Sex M Blood Group O+Relevant Personal History NORelevant Family History NOPreexisting Disease if any NO

Physical Examination:

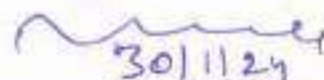
Weight 61kgGeneral Health GoodAnemia AbsentJaundice AbsentPulse 88 per. oxy - 99Blood Pressure 135/85RH Factor AB-124, Te - 7 broken / De-HE-67.424-26, Mon-2, Sat-05, Mon-01, Sat-12Chest Normal

CNS _____

Eye/Ear Left eye 6/6, Right eye 6/6 Normal

Investigation (if any) _____

Further Advice _____


30/11/24
Checked by
Medical Officer

HEALTH CARD OF EMPLOYEE

Registration No _____

Date 18/01/24

Name Pooja Kumar Father/Husband Rama Shankar PandeyDepartment ACCOUNT Age 48 year Sex M Blood Group B+Relevant Personal History NORelevant Family History NOPrelisting Disease if any NO

Physical Examination:

Weight 82 kg.General Health Good.Anemia Absent.Jaundice AbsentPulse 97/81

Blood Pressure _____

BF
Hb-13.5, T2-8.600, Ne-76, Ly-22, Mo-01, EO-01, Ba-02, ESR-22Chest X-Ray report. Normal.

CNS _____

Eye/Ear VA-LE/RE-6/8 NG Both ear hearing Sensitivity Normal.

Investigation (if any) _____

Further Advice _____



18/01/24

Checked by
Medical Officer

Code 3842

HEALTH CARD OF EMPLOYEE

Registration No _____ Date 30/1/24

Name Birbal Saren Father/Husband _____

Department _____ Age 33 Sex M Blood Group A (positive)

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 58 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 101 per min. 98

Blood Pressure 110/70

RH Factor Blood Hb-11.2 gm, TLC-9,950, DeNe-63, ly-29, Eos-06, Mon-02, Bas-00
1st hour 23R-20

Chest Normal

CNS _____

Eye/Ear Eye - $\leq$ $\frac{R}{L}$ $\frac{6}{6}$ $\frac{2}{6}$ vision Normal, Colour vision Normal.

Investigation (if any) _____

Further Advice _____

30/1/24

Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 30/1/24

Name Sanat Das Father/Husband Nema Das

Department DR100 (Mech) Age 29 Sex M Blood Group O+

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 80 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 78 per min avg - 97

Blood Pressure BP - 118/78 mm

RH Factor: Blod HB-13.79 g / TLC-7500, DLC-ne-69, 18-31, eos-05, MCH-01, MCV-01, ESR-15/1hr-16 mm

Chest Normal

CNS _____

Eye/Ear Left eye 6/6, Right eye 6/6 colour vision Normal.

Investigation (if any) _____

Further Advice _____

30/1/24

Checked by

Medical Officer

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

(92) OK

Registration No. _____

Date: 12-01-2024

Name Ratnakar Rajak Father/Husband Nannihopal RajakDepartment Sanitation Age 36 Sex M Blood Group A+Relevant Personal History NoRelevant Family History NoPrelisting Disease if any No

Physical Examination:

Weight 58 KgGeneral Health GoodAnemia NoJaundice NoPulse 85Blood Pressure 120/80RH Factor B/F Hb-12.6, TC-8700, NE-58, Ly-36, EO-0.5, MO-0.1, B-0.1
ESR-15Chest X-Ray - Normal

CNS _____

Eye/Ear Eye VA R-6/12, L-6/12, Both ear are sensitivity Normal

Investigation (if any) _____

Further Advice _____


 12/01/24
 Checked by
 Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 11/3/24

Name Rabi Lachan Bauri Father/Husband Sasti Bauri

Department _____ Age 36 Sex M Blood Group B+

Relevant Personal History No

Relevant Family History No

Preexisting Disease if any No

Physical Examination:

Weight 61 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 99-80

Blood Pressure 120/80

RH Factor B/F TC-9400, NE-GB, LY-27, FO-04, MA-01, BA-02, Hb7.11-G, FSA-3L

Chest X-Ray - report Normal

CNS _____

Eye/Ear Eye - L/E - 6/16, RE - 6/9, 1. Both for hearing sensitivity Normal

Investigation (if any) _____

Further Advice _____

11/03/24
Checked by
Medical Officer

EMP. code - B10003823

SHAKAMBHARI
GROUP

BRAVO SPONGE IRON PVT. LIMITED

Vill-Manuda, PO-Rukm, Dist-Purdia (WB)

(91)

HEALTH CARD OF EMPLOYEE

Registration No _____ Date 12-01-2024

Name Tapans Kr Maji Father/Husband Krishna ch Maji

Department Pellet mech Age 39 Sex M Blood Group AB Negative

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No

Physical Examination:

Weight 65 Kg

General Health Good

Anemia No

Jaundice No

Pulse 82

Blood Pressure 125/80

RH Factor B/F Hb-14, TC-8000, NE-61, Ly-34, MO-01, ES-04, B-0, ESR-05

Chest X-Ray - Normal

CNS _____

Eye/Ear Eye I/R G/G, NB, Normal, Both Ear hearing Satisfied normal

Investigation (if any) _____

Further Advice _____

[Signature]
12/01/24
Checked by
Medical Officer

EMP. CODE. 3862



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 27/01/24

Name Ananda Bhunia Father/Husband Rai Kishore Bhunia

Department Jr. E/Handy E/A Age 23 Sex M Blood Group B+

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 59 Kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 99/72

Blood Pressure 120/80

RH Factor B/F Hb-15.20, TC-6700, NE-65, LY-29, EO-06, M-0, B-0

Chest _____

CNS _____

Eye/Ear Left Eye 6/6, Right Eye 6/6 Normal

Investigation (if any) _____

Further Advice _____

27/01/24

Checked by
Medical Officer

BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date 30/11/24

Name Gopinath Das Father/Husband Rajkishore Das

Department CPP (open) Age 23y Sex M Blood Group O+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 50kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 101, 0x70-97

Blood Pressure 125/87 mmHg

RH Factor Blvd Hb-11gm, TLe-6500, Hct-65, Hct-32, Ect-02 mm-01, Bld-00, Ect-15, Hct-10 mm

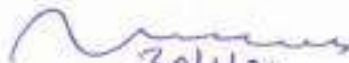
Chest X-Ray, Normal

CNS _____

Eye/Ear Left eye 6/6, Right eye 6/6 Normal

Investigation (if any) _____

Further Advice _____


30/11/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 15/03/24

Name Lalte Bauni Father/Husband Machhab Bauni

Department _____ Age 32 yrs Sex M Blood Group AB +ve

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 48 kgs

General Health Good

Anemia NO

Jaundice NO

Pulse 97-99/m Pulse 67/m

Blood Pressure 115/70 mmHg

Blood / Rm Factor TC-7600/cumm, Hb-12.8, ESR-12mm, Ne-67, Ly-20, Mo-02, Eo-05, Bas-01

Chest X-Ray - Normal

CNS _____

Eye/Ear LE-99, RE-99, N-G

Investigation (if any) _____

Further Advice _____

15/03/24
Checked by
Medical Officer

016800019

HEALTH CARD OF EMPLOYEE

Registration No _____ Date 29/2/24

Name Rabi Banerjee Father/Husband Dharmojy Banerjee

Department Horticulture Age 35 Sex M Blood Group B+

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No

Physical Examination:

Weight 58 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 92 per min O₂ 98

Blood Pressure 110/78 mmHg

BP 46/13.7, ESA-18, TC-11600, NE-68, Eo-02, Ly-29, Mo-03, Ba-00

Chest Normal

CNS _____

Eye/Ear Right eye 6/6 Left eye 6/6 Caloren test Normal

Investigation (if any) _____

Further Advice _____

29/2/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 01/02/24

Name Rama Mandal Father/Husband Moresch Mandal

Department DBI-3501 (Mech) Age 30 year Sex M. Blood Group B+

Relevant Personal History N/A

Relevant Family History N/A

Prelisting Disease if any N/A

Physical Examination:

Weight 70 kg.

General Health Good.

Anemia Absent

Jaundice Absent

Pulse 82

Blood Pressure 120/80

B/F TC-5500, Ne-60, L-32, Mo-01, Eo-02, Ba-10, EIA-20, Hb-12.5.

Rh Factor

Chest Normal

CNS

Eye/Ear 4A G/G

Both Ear Hearing Sensitivity Normal.

Investigation (if any)

Further Advice

01/02/24

Checked by
Medical Officer

EMP. Code: B10003871



BRAVO SPONGE IRON PVT. LIMITED

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

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HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 29/2/24

Name Swapan Bauri Father/Husband Dilip Bauri

Department Pellet Elect Age 29 Sex M Blood Group B+

Relevant Personal History No

Relevant Family History No

Preexisting Disease if any Absent

Physical Examination:

Weight 58Kg

General Health Good

Anemia No

Jaundice No

Pulse 97/82

Blood Pressure 120/70

B/F RH Factor Hb-12.6, TC-7200, NE-66, Ly-27, MO-02, EO-05
DA-00, ESR-15

Chest X-Ray Normal

CNS _____

Eye/Ear RT/LF Eye Sine Normal 6/6

Investigation (if any) _____

Further Advice _____

29/2/24

Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 29/2/24Name Santosh kumar Father/Husband umesh yadavDepartment Pellet per Age 27 Sex M Blood Group O+Relevant Personal History NoRelevant Family History NoPrelisting Disease if any No

Physical Examination:

Weight 56kgGeneral Health GoodAnemia NoJaundice NoPulse 97/86Blood Pressure 130/90RH Factor B/F Hb-12.09, Tc-8600, Mf-50, Ly-44, Eo-03, Mo-01Chest X-Ray Normal 50-00
ESR-13

CNS _____

Eye/Ear Eye L/E/RE G/S Normal and both Ears hearing Satisfied
Normal

Investigation (if any) _____

Further Advice _____

29/2/24

 Checked by
 Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

(9)

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 29/2/24

Name Raj Kumar Father/Husband Chandradev yadav

Department Pollet PCT Age 38 Sex M Blood Group B+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 56kg

General Health Good

Anemia NO

Jaundice NO

Pulse 98/82

Blood Pressure 125/85

RH Factor Anti Hb-13.2, Total-8.800 Die-Ac-55.4-38.8-0.3 mmol, Pos. 0.8 1st Pos. 0.5

Chest Normal

CNS _____

Eye/Ear Left eye 6/6 Right eye 6/6 colour vision normal

Investigation (if any) _____

Further Advice _____

29/2/24

Checked by
Medical Officer

Emp. code - B10003881

95

OK



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 29/2/24

Name Kartik - Saren ✓ Father/Husband Dhananjay Saren

Department DRI-Procure Age 32 Sex M Blood Group B+

Relevant Personal History No

Relevant Family History No

Preexisting Disease if any No

Physical Examination:

Weight 62 Kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 77/81

Blood Pressure 125/80

B/F
RH Factor HS-12.4, NE-64, Ly-29, MO-01, EO-06

Chest X-Ray Normal DS-00
FSB-00

CNS _____

Eye/Ear Exp, UR, b/l, NL, Normal Both Eyes hearing Satisfactory

Investigation (if any) _____

Further Advice _____

29/2/24

Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 16-02-2024

Name Tarit Majee Father/Husband Sarojashya Majee

Department Pellet & Fringe Age 33 yrs Sex M Blood Group B+ve

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 62 kgs

General Health Good

Anemia NO

Jaundice NO

Pulse 98/m

Blood Pressure 115/75 mmHg

Blood for
Rt factor Tc-760/anna Hb% 12.9, ESR-12mm, Ne-67%, Le-26%, Mo-62%, Fe-15%, Pro-

Chest Normal

CNS —

Eye/Ear Eye - V.S.R-6/6 vision - Normal

Investigation (if any) _____

Further Advice _____

16/02/24
Checked by
Medical Officer

B10003381



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 16-02-2024

Name Tarit Majee Father/Husband Sarojashya Majee

Department Pellet & Traps Age 33 yrs Sex M Blood Group B + ve

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 62 kgs

General Health Good

Anemia NO

Jaundice NO

Pulse 98/m

Blood Pressure 115/75 mm Hg

Blood for Te-760/anna, Hb% 12.9, ESR-12 mm, Ne-67%, Le-26%, Mo-62%, Fe-15%, Pro-

Chest Normal

CNS —

Eye/Ear Eye - V.S.L-6/6 vision - Normal

Investigation (if any) _____

Further Advice _____

16/02/24
Checked by
Medical Officer

B10003381



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

68

Registration No. _____ Date: 12/2/24

Name Amit Nania Father/Husband Hari Nania

Department Accel Electri Age 32 yrs Sex M Blood Group B+

Relevant Personal History No

Relevant Family History No

Preexisting Disease if any Nil

Physical Examination:

Weight 69 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 90

Blood Pressure 120/80

RH Factor B/E Hb - 16.8 Tc - 7500, Ne - 50, Ly - 41, Eo - 02 Mo - 7, Ba - 00 ESO - 12

Chest X-Ray Normal

CNS _____

Eye/Ear LE/RE - 6/6, Both Eyes hearing Sensitivity Normal

Investigation (if any) _____

Further Advice _____

12/2/24
Checked by
Medical Officer

EMP. code. B10003886

12

OK



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: _____

Name Bindeswar yadav Father/Husband Badho yadav

Department _____ Age 36 Sex M Blood Group B+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 58 kg

General Health Good

Anemia NO

Jaundice NO

Pulse 90

Blood Pressure 110/80

RH Factor B/F Hb-12.0g, TC-9200, NE-65, LY-30, FO-04, me-01, BO-01
FSR-22

Chest X-Ray - Normal

CNS _____

Eye/Ear Eye/E/RE-G/C. , Both Ear hearing Sensitivity Normal

Investigation (if any) _____

Further Advice _____

29/2/24

Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 29/2/24

Name: Syed Hasean Askari Father/Husband: Syed Roza Ali

Department: Safety Officer Age: 29 Sex: M Blood Group: B Negative

Relevant Personal History: NO

Relevant Family History: NO

Preexisting Disease if any: NO

Physical Examination:

Weight: 65 Kg

General Health: Good

Anemia: Absent

Jaundice: Absent

Pulse: 98/82

Blood Pressure: 120/80

RH Factor: Blood Hb-15.3 gm/100 ml - 80%, RBC-44.28 mm-03, WBC-10.14 mm-03, Platelets-1.2 m

Chest: X-Ray - Normal

CNS: _____

Eye/Ear: Eye LR 6/6, NB, Normal, Both Ear hearing Satisfied

Investigation (if any): _____

Further Advice: _____

29/2/24
Checked by
Medical Officer

EMP. Code - B10003882

(96) Dec



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 29/2/24

Name Prabir Majee Father/Husband Asbok Kr MajeeDepartment DRS-process Age 35 Sex M Blood Group B+Relevant Personal History NoRelevant Family History NoPreexisting Disease if any No

Physical Examination:

Weight 78 KgGeneral Health GoodAnemia AbsentJaundice AbsentPulse 97/82Blood Pressure 130/85B/F
RF Factor Hb-14.6, TC-5700, NE-62, EO-02, Ly-33, Bo-00, mo-1Chest X-Ray Normal

CNS _____

Eye/Ear Eye C/R 6/6, N/6, Normal both Ear hearing Satisfied.

Investigation (if any) _____

Further Advice _____

29/2/24
Checked by
Medical Officer

300KAL/ANAR
2000

BRAVO SPONGE IRON PVT. LIMITED

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

56

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date 12/2/24

Name Pankaj Daibagna Father/Husband Lotam Daibagna

Department Pellet Eleri Age 29 year Sex M Blood Group A+

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No

Physical Examination:

Weight 73 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 95

Blood Pressure 120/60

~~RBC~~ ^{B/P} Hb 15.9, Tc 7350, Ne 50, L 44, Eo 03, Mo 03, Ba 08, ESR 14.

Chest X-Ray - Normal

CNS _____

Eye/Ear RE/LE - G/GNO, Both Ear hearing Sensitivity Normal

Investigation (if any) _____

Further Advice _____

12/02/24

Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

(99) SW

Registration No _____ Date 19/2/24

Name Soumyendra Mishra Father/Husband Chandam Ku. Mishra

Department Accounts Age 34 year Sex M Blood Group A+ve

Relevant Personal History No

Relevant Family History No

Preexisting Disease if any No

Physical Examination:

Weight 62 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 88

Blood Pressure 110/65

~~Full Count~~ Hb-15.01, Tc-11.50, Ne-67, L-25, Eo-05, Mo-03, Ba-00, ESR-30

Chest X-Ray - Normal

CNS _____

Eye/Ear Eye - VA 4/6 NG, Both Hearing Sensitivity Normal

Investigation if any _____

Further Advice _____

19/2/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 11/3/24

Name Abhay Gupta Father/Husband Rajendra Prasad Gupta

Department Parachee Age 27 Yrs Sex M Blood Group A+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 63 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 97/101

Blood Pressure 129/79

RH Factor B/F TC-8000, NE-60, LY-34, MO-01, EO-05, ESR-10mm

Chest X-Ray - Report Normal

CNS RE

Eye/Ear REG/36, LE-64 vs 6/6, Both Ear hearing Acuity Normal

Investigation (if any) _____

Further Advice _____

[Signature]
11/03/24
Checked by
Medical Officer

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BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 09/03/24

Name Koushik Ku. Banerjee Father/Husband Let. Nikhil Ku. Banerjee

Department Accountee Age 39 year Sex M Blood Group _____

Relevant Personal History NO

Relevant Family History NO

Preexisting Disease if any NO

Physical Examination:

Weight 79 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 96/85

Blood Pressure 120/80

RH Factor Hb: 15.41, ESA-15, Tc-7.89, Ne-50.91, Ly-38.88, Mo-4.67, Co-5.18, BA-40

Chest Normal

CNS _____

Eye/Ear Eye L/A-VN - G/G NG. Both Ear Hearing Acuity Normal

Investigation (if any) _____

Further Advice _____

09/03/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 20/03/24

Name Routrav Ku. Tha Father/Husband Uttam Ku. Tha

Department DRI-Process Age 26 year Sex M Blood Group O+

Relevant Personal History No

Relevant Family History No

Prelisting Disease if any No.

Physical Examination:

Weight 65 kg.

General Health Good.

Anemia Absent.

Jaundice Absent.

Pulse 98-82

Blood Pressure 120/80

B/F Hb-11.8, Tc-820, Ne-67, Ly-30, Eo-03, Mo-01, Ba-00, ESR-^{1st} 20mm

Chest Normal X-Ray

CNS

Eye/Ear Eye LE/RE- G.E., No. Normal. Both Ear Hearing Sensitivity. Normal

Investigation (if any)

Further Advice

20/03/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

Vill-Mahuda, P.O.-Rukni, Dist.-Purulia (WB)

HEALTH CARD OF EMPLOYEE

Date 01-03-24

Registration No. _____

Name Awadhesh Prasad Shau Husband Mr. Kankharia Prasad

Department S.M.S. n. op. rge Age 34 yrs Sex M Blood Group B + ve

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 58 kg

General Health Good

Anemia NO

Jaundice NO

Pulse 94-95 / P.R. - 82

Blood Pressure 115/80 mmHg

Bladder Te. 9.15 mm, Hb. 13.5 g/dl, ESR - 10 mm, Me - Fe, Fo - 0.4, Bn - 0.0, M - 0.0
4 - 26

Chest Normal

CNS _____

Eye/Ear R - 6/6 L - 6/6 Vision is normal.

Investigation if any _____

Further Advice _____

01/03/24
Checked by
Medical Officer

B10003889



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 11/3/24

Name Rocket Mandal Father/Husband Narayan ch MandalDepartment DRI Elec LST Age 28 Sex M Blood Group O+Relevant Personal History 100 TPD NoRelevant Family History NoPreexisting Disease if any No

Physical Examination:

Weight 72General Health GoodAnemia NoJaundice NoPulse 77/84Blood Pressure 125/75Blood for
RH Factor TLC-6,800/kumr, Hb% 14.8g/dl, ESR-06mm, NE-63, LE-32, Eo-09, Mo-01, Bx-VDChest X-Report Normal

CNS _____

Eye/Ear EYE- LE/REV- G/C/N/G, Both Eyes, hearing Sensitivity Normal

Investigation (if any) _____

Further Advice _____

11/3/24
Checked by
Medical Officer

EMP. Card. B10005901



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date 11/3/24

Name Durgadas Mandal Father/Husband Nirad Mandal

Department DRI Elect/T Age 48 Sex M Blood Group O+

Relevant Personal History 10+ TPD NO

Relevant Family History NO

Prelisting Disease if any Absent

Physical Examination:

Weight 58

General Health Good

Anemia NO

Jaundice NO

Pulse 78/82

Blood Pressure 130/85

RH Factor B/F Hb-13.2, TC-8600, NE-52, Ly-43, E0-13, MO-02

Chest X-Ray Normal ESR-18

CNS _____

Eye/Ear Eye Rt./Lt. O/G Normal

Investigation (if any) _____

Further Advice _____

11/3/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

110 Due

HEALTH CARD OF EMPLOYEE

Registration No _____ Date: 09/3/24

Name Sanojit Mandal Father/Husband Pintu Mandal

Department Junior Executive Account Age 24 Sex M Blood Group AB+

Relevant Personal History No

Relevant Family History No

Preexisting Disease if any No

Physical Examination:

Weight 54 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 99/95

Blood Pressure 125/75

BIF
Rm Factor Hb-13.5, TC-9200, ESR-12, NE-65, LY-29, FO-05
MO-01, BO-00

Chest Normal

CNS

Eye/Ear Eye Report R-6/6, L/6/6 - vision is normal

Investigation if any

Further Advice

09/3/24
Checked by
Medical Officer

EMP. code- B10003908

B-1003908

112 (112) OK



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 11/3/24

Name Murari Ku. Yadav Father/Husband Nanda Kisor Yadav

Department C.C.M Age 22 year Sex M Blood Group _____

Relevant Personal History _____ No

Relevant Family History _____ No

Prelisting Disease if any _____ No

Physical Examination:

Weight 55

General Health Good

Anemia Absent

Jaundice Absent

Pulse 97-92

Blood Pressure 110/70

Rh Factor Anti-RS, TC-6.50, Ne-65, Ly-31, E-2, M-02, Bg-00, FSR-05

Chest X-Ray normal

CNS _____

Eye/Ear Eye-LE/RE-V-6/6 , Both Ear hearing Sensory Normal

Investigation (if any) _____

Further Advice _____

11/03/24
Checked by
Medical Officer

EMP. code. B10003906



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 29/3/24

Name Gioutam Bauri Father/Husband Pagal Bauri

Department _____ Age 28 Sex M Blood Group O+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 55kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse oxy-98 pal-82

Blood Pressure 115/75

B/F:Hb 12.4, ESR 10, TC 7200, NEU 68, LY 25, EO 05, MO 02, BA 00.

Abdomen _____

Chest X-Ray Normal

CNS _____

Eye/Ear Eye VA Rt/Lt 6/6 Normal and Both Ears hearing
Satisfied Normal

Investigation (if any) _____

Further Advice _____

29/3/24
Checked by
Medical Officer



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 11/3/24
 Name Poltn Ghosh Father/Husband Primal Ghosh
 Department DRI-350 Age 21 Sex M Blood Group B+
 Relevant Personal History No
 Relevant Family History No
 Prelisting Disease if any No

Physical Examination:

Weight 54 kg
 General Health Good
 Anemia Absent
 Jaundice Absent
 Pulse 97/78
 Blood Pressure 115/80
 B/F: Hb 13.4, ESR 16, TC 8600, NEU 66, Ly 30, EO 03, MO 01, BA 00.
 Abdomen _____
 Chest X-Ray Normal
 CNS _____
 Eye/Ear Eye left and Rt Eye 6/6 Normal
 Investigation (if any) _____
 Further Advice _____

11/3/24
 Checked by
 Medical Officer

EMP. code - B10003841



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 29/2/24

Name Animesh Bauri Father/Husband Narayan ch Bauri

Department C. Store Age 29 Sex M Blood Group B+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 54 kg

General Health Good

Anemia Absent

Jaundice NO

Pulse PR- 78

Blood Pressure 113/80

B/F: Hb 13.2, ESR 12, TC 7600, NEU 67, Ly 26, EO 05, MO 02, BA 00.

Abdomen _____

Chest X-Ray Normal

CNS _____

Eye/Ear Left Eye and Rt. Eye G/G Normal, Both Ear hearing

Investigation (if any) Satisfied normal

Further Advice _____

29/2/24
Checked by
Medical Officer

EMP. code. B10003873



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 29/2/24

Name Ranjit Bauri Father/Husband Kharu Bauri

Department Horticulture Age 33 Sex M Blood Group O+ve

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 46 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 95

Blood Pressure 120/80

B/F:Hb 12.8, ESR 09, TC 7900, NEU 62, Ly 34, EO 03, MO 01, BA 00

Abdomen _____

Chest X-Ray Normal

CNS _____

Eye/Ear Left Eye and Rt Eye 6/6 Normal or hearing Normal

Investigation (if any) _____

Further Advice _____

29/2/24
Checked by
Medical Officer

EMP-code- B10003893



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 29/3/24

Name Sugriy kr yadav Father/Husband Rajendra yadav

Department C.P.P Age 28 Sex M Blood Group O+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 85 kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 98/88

Blood Pressure 120/80

B/F:Hb 13.7, ESR 15, TC 8200, NEU 74, Ly 21, EO 04, MO 01, BA 00

Abdomen _____

Chest X-Ray Normal

CNS _____

Eye/Ear Eye left and Rt. Eye 6/6 Normal

Investigation (if any) _____

Further Advice _____

29/3/24
Checked by
Medical Officer

EMP code. B10003798



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____ Date: 15/12/23

Name Md. Nazrul Ansary Father/Husband Md. Akkel Ali Ansary

Department DRI 350 Process Age 29 Sex M Blood Group O+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 53 Kg

General Health Good

Anemia Absent

Jaundice Absent

Pulse 85

Blood Pressure 110/80

B/F: Hb 11.25, ESR 14, TC 6500, NEU 62, Ly 30, EO 6, MO 01, BA 01

Abdomen _____

Chest X-Ray Normal

CNS Normal

Eye/Ear Eye/Left and Rt G/G Normal and Both Ear Hearing Satisfied Normal

Investigation (if any) _____

Further Advice _____

15/12/23
Checked by
Medical Officer

EMP. code - B10003841



BRAVO SPONGE IRON PVT. LIMITED

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

HEALTH CARD OF EMPLOYEE

Registration No. _____

Date: 29/2/24

Name Animesh Bauri Father/Husband Norajan ch Bauri

Department C. Store Age 29 Sex M Blood Group B+

Relevant Personal History NO

Relevant Family History NO

Prelisting Disease if any NO

Physical Examination:

Weight 54 Kg

General Health Good

Anemia Absent

Jaundice NO

Pulse PR- 78

Blood Pressure 113/80

B/F:Hb 13.2, ESR 12, TC 7600, NEU 67, Ly 26, EO 05, MO 02, BA 00.

Abdomen _____

Chest X-Ray Normal

CNS _____

Eye/Ear Left Eye and Rt. Eye G/G Normal, Both Ear hearing Satisfied normal

Investigation (if any) _____

Further Advice _____

29/2/24
Checked by
Medical Officer

Annexure-17

PRIMARY SCHOOL AT VILLAGE KASHBERIA



Annexure-18

PHOTOGRAPHS RELATED TO CORPORATE SOCIAL RESPONSIBILITY

INAUGURATION OF SEWING AND COMPUTER TRAINING CENTER



FOOD GRAIN DISTRIBUTION TO NEEDY PEOPLE



WINTER ESSENTIALS DISTRIBUTION TO UNDERPRIVILEGED PEOPLE



WINTER CLOTH & STUDY MATERIALS DISTRIBUTION TO SCHOOL CHILDREN



DISPENSARY INAUGURATION AT GOBINDAPUR VILLAGE



JAL CHHATRA DURING SUMMER SEASON



SPORTS ORGANIZATION FOR LOCAL YOUTH



BATHING GHAT AT VILLAGE ALKUSH AND RUKNI



SKILL DEVELOPMENT TRAINING TO LOCAL YOUTH



VILLAGE POND DEVELOPMENT FOR RAIN WATER HARVESTING



Annexure-19



(<http://www.technoglobalhospital.com>)



কলকাতা শনিবার ৭ নভেম্বর, ২০২০
(<http://www.eajkaal.in>)



(<http://www.technoglobalhospital.com>)

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সংশোধনী

ভুলক্রমে এই পত্রিকায়
০৬.১১.২০২০ তারিখে ঋষি ট্রেডিং
কোম্পানি লিমিটেড (CIN:
U01409WB1980PTC195437)-
এর বিজ্ঞাপন কনসোলিডেটেড ফটো
অ্যান্ড ফিনভেস্ট লিমিটেড (CIN:
U65993DL1996PLC081586)-এর
নামে প্রকাশিত হয়েছিল। দয়া করে
বিজ্ঞাপনের নাম কনসোলিডেটেড ফটো
অ্যান্ড ফিনভেস্ট লিং-এর স্থানে ঋষি
ট্রেডিং কোম্পানি লিমিটেড পড়তে হবে।
অসুবিধার জন্য দুঃখিত।

বিএমডব্লু ইন্ডাস্ট্রিজ লিমিটেড
রেজিস্টার্ড অফিস: ১১৯, পার্ক স্ট্রিট, হোয়াইট
হাউস, ৪র্থ তল, কলকাতা- ৭০০ ০১৬
টেলি: ০৩৩-৪০০৭১৭০৪, ০৩৩২২২৬৮৮২
ইমেইল: info@bmwl.co.in
Website: www.bmwl.co.in
CIN: L51109WB1981PLC034212

বিজ্ঞপ্তি

সিকিউরিটিজ অ্যান্ড এক্সচেঞ্জ বোর্ড অফ ইন্ডিয়া (লিস্টিং
অবলিগেশনস অ্যান্ড ডিসক্লোজার রিকায়ারমেন্টস)
রেগুলেশনস ২০১৫ ('লিস্টিং রেগুলেশনস')
রেগুলেশন ২৯ এবং সূচী-৩-এর অংশ ক অনুযায়ী
বিজ্ঞপ্তি প্রদান করা হচ্ছে যে, কোম্পানির দ্বিতীয়
ত্রৈমাসিক এবং বার্ষিক সমাপ্ত ৩০শে সেপ্টেম্বর,
২০২০ সময়ের ভাপরীক্ষিত একক এবং একীকৃত
আর্থিক তথ্যগুলি বিবেচনা ও অনুমোদনের জন্য
কোম্পানির পরিচালন পর্ষদের 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
ঋষি বিনয় কাপুর
তারিখ: ৬ নভেম্বর, ২০২০ কোম্পানি সেক্রেটারি
স্থান: কলকাতা **Acs No: A9812**

প্রকাশ্য বিজ্ঞপ্তি

এতদ্বারা এই নোটিস জারি করা হচ্ছে যে, পশ্চিমবঙ্গ
রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে
রেজিস্টার্ড অফিস স্থানান্তর নিশ্চিতকরণের জন্য লিঙ্কলাইন
ট্রেডলিম্ব এলএলপি দ্বারা রেজিস্ট্রারের অফিসে লিমিটেড
ল্যায়াবিলিটি পার্টনারশিপ আই, ২০০৮-এর ১৩ নং
ধারায়ীনে একটি নোটিস পাঠানো হবে।
রেজিস্টার্ড অফিস পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল
ক্যাপিটাল টেরিটরি অফ দিল্লি-তে স্থানান্তরের উক্ত
প্রক্রিয়ায় কারও স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা থাকলে যে
কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার
অতিরিক্ত থেকে ২১ দিনের মধ্যে তাঁর (পুং/ স্ত্রী) স্বার্থের
ধরন ও বিরোধিতার কারণ উল্লেখ করে রেজিস্ট্রারের
কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই
লিঙ্কলাইন ট্রেডলিম্ব এলএলপি-এর নিম্নলিখিত
রেজিস্টার্ড অফিসের ডিকানায় পেশ করতে হবে:
রেজিস্টার্ড অফিসের ডিকানা: ৬৬, আর কে চ্যাটার্জি রোড,
কলকাতা-৭০০০৪২।
লিঙ্কলাইন ট্রেডলিম্ব এলএলপি-এর তরফে
ঋষি বিজয় মোহি
(ব্যক্তি কর্পোরেট
ডিসি নমিনি)
তারিখ: ০৬.১১.২০২০ ডিকাইএন: ০৪৪13323
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
শর্পার এলএলপি দ্বারা রেজিস্ট্রারের অফিসে লিমিটেড
ল্যায়াবিলিটি পার্টনারশিপ আই, ২০০৮-এর ১৩ নং
ধারায়ীনে একটি নোটিস পাঠানো হবে।
রেজিস্টার্ড অফিস পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল
ক্যাপিটাল টেরিটরি অফ দিল্লি-তে স্থানান্তরের উক্ত
প্রক্রিয়ায় কারও স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা থাকলে যে
কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার
অতিরিক্ত থেকে ২১ দিনের মধ্যে তাঁর (পুং/ স্ত্রী) স্বার্থের
ধরন ও বিরোধিতার কারণ উল্লেখ করে রেজিস্ট্রারের
কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই
গ্যামার

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
ব্রাহ্ম স্পঞ্জ আয়রন প্রাঃ লিঃ, পরিবেশ
বন ও জলবায়ু পরিবর্তন মন্ত্রণালয়,

শপার্স এলএলপি-এর নিম্নলিখিত রেজিস্টার্ড অফিসের
ঠিকানাঃ শেখ কবীর হোসে:
রেজিস্টার্ড অফিসের ঠিকানা: এম. আর কে চ্যাটার্জি রোড,
কলকাতা-৭০০০৪২।

গ্যামার শপার্স এলএলপি-এর তরফে
স্বাক্ষর- কোভিত মুখার্জি
মোঃ কংপার্টেট
তারিখ: ০৬.১১.২০২০
স্থান: কলকাতা

ডিপি নম্বর:
ডিসাইএন: 03570652

প্রকাশ্য বিজ্ঞপ্তি

এতদ্বারা এই নোটিশ জারি করা হচ্ছে যে, পশ্চিমবঙ্গ
রাজ্য থেকে ন্যাশনাল কার্পিটাল টেরিটরি অফ ইন্ডিয়া-তে
রেজিস্টার্ড অফিস স্থানান্তর নিশ্চিতকরণের জন্য গোষ্ঠীপদ্ধতি
শপার্স এলএলপি দ্বারা রেজিস্ট্রারের অফিসে নিম্নলিখিত
লিখিত্বিগিটি পার্টনারশিপ আর্টি: ২০০৮-এর ১৩ নং
ধারায়ীনে একটি নোটিশ প্রদান করা হবে।
রেজিস্টার্ড অফিস পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল
কার্পিটাল টেরিটরি অফ ইন্ডিয়া-তে স্থানান্তরের উদ্দেশ্যে
প্রত্যেক কার্যকর স্বাক্ষর হওয়ার সম্ভাবনা থাকলে যে
কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার
তারিখ থেকে ২১ দিনের মধ্যে তাঁর (পূর্ণ/ স্ত্রী) স্বাক্ষর
ধরন ও বিরোধিতার কারণ উল্লেখ করে রেজিস্ট্রারের
কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই
গোষ্ঠীপদ্ধতি শপার্স এলএলপি-এর নিম্নলিখিত রেজিস্টার্ড
অফিসের ঠিকানায় পেশ করতে হবে:
রেজিস্টার্ড অফিসের ঠিকানা: এম. আর কে চ্যাটার্জি রোড,
কলকাতা-৭০০০৪২।

গোষ্ঠীপদ্ধতি শপার্স এলএলপি-এর তরফে
স্বাক্ষর- পবন কুমার অনহাঙ্গিয়া
মোঃ কংপার্টেট
তারিখ: ০৬.১১.২০২০
স্থান: কলকাতা

ডিপি নম্বর:
ডিসাইএন: 02912037

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: ওয়াডারফুল ডিলার এলএলপি (LL-
PIN:AAT-8257) যার রেজিস্টার্ড অফিস প্রযুক্ত
বেদপ্রকাশ কান্দোই, ঘর নং ৩৫, ভূপেন্দ্র বোস
আভিনিউ, ফ্লাট ২ বি, ৩য় তল, কলকাতা-৭০০ ০০৪
জনসাধারণকে এতদ্বারা বিজ্ঞপ্তি প্রদান করা হচ্ছে যে,
এল এল পি লিমিটেড লাইবেলিটি পার্টনারশিপ আর্টি
২০০৮-সেকশন ১৩ (৩) অনুযায়ী তাদের রেজিস্টার্ড
অফিস 'পশ্চিমবঙ্গ রাজ্য' থেকে 'আসাম রাজ্য'
স্থানান্তরের জন্য রেজিস্ট্রার-এর কাছে একটি আবেদন
জমা করবার প্রস্তাব করেছেন।
এলএলপি-এর প্রস্তাবিত পরিবর্তনের ফলে স্বাক্ষর
কৃত 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
স্বাক্ষর ধরন এবং বিরোধিতা উল্লেখ করে হলফনামা
সহ সমর্থিত আপত্তিসমূহ পাঠাতে পারেন তৎসহ
নীচে বর্ণিত ঠিকানাতে এলএলপি-এর অফিসে
পাঠাতে পারেন।
ওয়াডারফুল ডিলার এলএলপি
প্রযুক্ত বেদপ্রকাশ কান্দোই, ঘর নং ৩৫ ভূপেন্দ্র বোস
আভিনিউ, ফ্লাট ২ বি, ৩য় তল,
কলকাতা-৭০০ ০০৪
ওয়াডারফুল ডিলার এল এল পি-এর পক্ষে
স্বাক্ষর/
প্রদীপকুমার আগরওয়াল
তারিখ: ০৬.১১.২০২০
স্থান: কলকাতা

মহানীত অংশীদার
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: লাইটসন ডিনকম এলএলপি
(LLPIN:AAT-8267) যার রেজিস্টার্ড অফিস
প্রযুক্ত বেদপ্রকাশ কান্দোই, ঘর নং ৩৫, ভূপেন্দ্র বোস
আভিনিউ, ফ্লাট ২ বি, ৩য় তল, কলকাতা-৭০০ ০০৪
জনসাধারণকে এতদ্বারা বিজ্ঞপ্তি প্রদান করা হচ্ছে যে,
এল এল পি লিমিটেড লাইবেলিটি পার্টনারশিপ আর্টি
২০০৮-সেকশন ১৩ (৩) অনুযায়ী তাদের রেজিস্টার্ড
অফিস 'পশ্চিমবঙ্গ রাজ্য' থেকে 'আসাম রাজ্য' স্থানান্তরের
জন্য রেজিস্ট্রার-এর কাছে একটি আবেদন জমা করবার
প্রস্তাব করেছেন।
এলএলপি-এর প্রস্তাবিত পরিবর্তনের ফলে স্বাক্ষর
কৃত 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 স্বাক্ষর ধরন
এবং বিরোধিতা উল্লেখ করে হলফনামা সহ সমর্থিত
আপত্তিসমূহ পাঠাতে পারেন তৎসহ নীচে বর্ণিত
ঠিকানাতে এলএলপি-এর অফিসে পাঠাতে পারেন।
লাইটসন ডিনকম এলএলপি

ভারত সরকার হইতে পঃ বঃ রাজ্যের
পুর্নলিয়া 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 ক্রিন), ইন্ডাকসন
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 ইউটাইলাইজিং ওয়েস্ট
হিট হইতে প্রস্তুতকৃত 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।
ব্রাহ্ম স্পঞ্জ আয়রন প্রাঃ লিঃ
Sd/-

ফর্ম নং- আই এম সি-২৩
কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪-এর রুল
৩০ অনুযায়ী
এক রাজ্য থেকে অন্য রাজ্যে কোম্পানির রেজিস্টার্ড অফিস
পরিবর্তন উপলক্ষে সংবাদপত্রে বিজ্ঞাপন প্রকাশ
রিজিওনাল ডিরেক্টর, ইন্টার্ন রিজিয়ন: কলকাতা সমীপে
কোম্পানি আইন, ২০১৩-এর ১৩ ধারা (৪) উপধারা
জানুয়ারি এবং কোম্পানিজ (ইনকর্পোরেশন) রুলস,
২০১৪-এর রুল ৩০-এর সাল-রুল (৪) উপধারার রুল
(৪) অনুসারে
এবং
নিম্নোক্ত সম্পর্কে: ইমেজ ক্রিয়েশন শাফিস প্রাইভেট
লিমিটেড (CIN: U17122WB2008PTC123209),
রেজিস্টার্ড অফিস: ৪১/১১ বি, হরপ্রসাদ সে লেন, ২য় তল, ঢাকা
পল্লি নিকটে, কলকাতা- ৭০০ ০০৭, পশ্চিমবঙ্গ
...আবেদনকারী
এতদ্বারা জনসাধারণের প্রতি বিজ্ঞপ্তি জারি করা হচ্ছে
যে, 'পশ্চিমবঙ্গ রাজ্য' থেকে 'গুজরাট রাজ্য' রেজিস্টার্ড
অফিস স্থানান্তরের উদ্দেশ্যে ৩ অক্টোবর, ২০২০ তারিখে
স্বাক্ষরিত বিশেষ সাধারণ সভায় গৃহীত বিশেষ প্রস্তাব অনুযায়ী
কোম্পানি সাধারণতন্ত্রের সদস্যদের অনুমোদন প্রার্থনা করে
কোম্পানিজ আর্টি, ২০১৩-এর ১৩ ধারা অনুসারে কেন্দ্রীয়
সরকার-এর কাছে সংশ্লিষ্ট কোম্পানি একটি আবেদন করার
প্রস্তাব করেছে।
কোম্পানির রেজিস্টার্ড অফিসের প্রস্তাবিত পরিবর্তনের ফলে
স্বাক্ষর কৃত হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই
বিজ্ঞপ্তি প্রকাশের তারিখ থেকে ১৪ (চৌদ্দ) দিনের মধ্যে
এমসিএ-২১ পোর্টাল (www.mca.gov.in)-এ ইনভেন্টর
কমপ্লেইন ফর্ম পূরণ করে অথবা রেজিস্টার্ড ডাকযোগে
রিজিওনাল ডিরেক্টর, ইন্টার্ন রিজিয়ন, ২৩৪/৪, অফিস ভবন
১৪ বেস বোর্ড, নিজাম প্যালেস, II এম এস ও বিল্ডিং, ৪র্থ
তল, কলকাতা-৭০০ ০২০-এর কাছে তাঁর/তাদের (স্বাক্ষর/পূর্ণ)
স্বাক্ষর ধরন এবং বিরোধিতার কারণ উল্লেখ করে একটি
হলফনামা দ্বারা সমর্থিত আপত্তিসমূহ পাঠাতে পারেন, তৎসহ
ওলরে বর্ণিত ঠিকানাতে অবস্থিত অফিসে, আবেদনকারী
কোম্পানির কাছেও একটি কপি পাঠাতে পারেন। যার
ঠিকানা- রেজিস্টার্ড অফিস- ৪১/১২ বি, হরপ্রসাদ সে লেন, ২য়
তল, ঢাকা পল্লি নিকটে, কলকাতা- ৭০০ ০০৭, পশ্চিমবঙ্গ
...আবেদনকারী
ইমেজ ক্রিয়েশন শাফিস প্রাইভেট লিমিটেড-এর পক্ষে
স্বাক্ষর: মনোজ কুমার জৈন
তারিখ: ০৭.১১.২০২০
স্থান: কলকাতা

DIN: 01834584

ফর্ম নং- আইএলসি-২৫এ
কেন্দ্রীয় সরকার, রিজিওনাল ডিরেক্টর, ইন্টার্ন রিজিয়ন,
কংপার্টেট বিজয়ক মন্ডল, কলকাতা সমীপে কোম্পানি
আইন, ২০১৩, কোম্পানি আইন ২০১৩-এর ১৪ ধারা
এবং
কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪-এর রুল
৪১ অনুসারে
বিষয়: নটরাজ টেকনোসফট লিমিটেড, রেজিস্টার্ড
অফিস: ৫ এফ, এডারেস্ট, ৪৬/সি, চৌরঙ্গি রোড,
কলকাতা- ৭০০ ০৭১, পশ্চিমবঙ্গ
...আবেদনকারী
এতদ্বারা জনসাধারণের প্রতি বিজ্ঞপ্তি জারি করা হচ্ছে
যে, পার্শ্বিক কোম্পানি থেকে প্রাইভেট কোম্পানিতে
বদলের উদ্দেশ্যে ৩০ অক্টোবর, ২০২০ তারিখে বিশেষ
সাধারণ সভায় গৃহীত বিশেষ প্রস্তাব অনুযায়ী কোম্পানির
সাধারণতন্ত্রের সদস্যদের অনুমোদন প্রার্থনা করে
কোম্পানিজ আর্টি ২০১৩-এর ১৪ ধারা অনুসারে কেন্দ্রীয়
সরকার-এর কাছে সংশ্লিষ্ট কোম্পানি একটি আবেদন
করার প্রস্তাব করেছে।
কোম্পানির রেজিস্টার্ড অফিসের প্রস্তাবিত ঠিকানা
পরিবর্তনের ফলে স্বাক্ষর কৃত হওয়ার সম্ভাবনা আছে
এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশের তারিখ
থেকে চৌদ্দো দিনের মধ্যে রিজিওনাল ডিরেক্টর, ইন্টার্ন
রিজিয়ন, ২৩৪, এ জে সি বোস রোড, নিজাম প্যালেস,
II এমএস ও বিল্ডিং, ৪র্থ তল, কলকাতা-৭০০০২০-
এর কাছে তাঁর/তাদের (স্বাক্ষর/পূর্ণ) স্বাক্ষর ধরন এবং
বিরোধিতার কারণ উল্লেখ করে একটি হলফনামা দ্বারা
সমর্থিত আপত্তিসমূহ রেজিস্টার্ড ডাকযোগে পাঠাতে
পারেন, তৎসহ নিচ বর্ণিত ঠিকানাতে অবস্থিত অফিসে,
আবেদনকারী কোম্পানির কাছেও একটি কপি পাঠাতে



Open A Zero Bal Account Online

বিজ্ঞাপন Kotak 811

Blazing Fast VPN

বিজ্ঞাপন NordVPN



Online Cake Delivery

বিজ্ঞাপন Winni

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.
Sd/-

PSL LIMITED

Regd. Office : Kachigani, Daman,
U.T. of Daman & Diu-396210
CIN NO. L67120DD1987PLC002395

NOTICE

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.pslimited.com and website of the stock exchanges i.e. www.bseindia.com and www.nseindia.com

For PSL LIMITED
Sd/-
Place : NEW DELHI
Date : 06 Nov. 2020
NITIN JAIN
LIQUIDATOR

DYNAMIC MICROSTEPPERS LIMITED

CIN: L45904MH1950PLC030301
Regd. Office: 506, Mathura Arcade, Above Axis Bank, Near Ganeros, Subhash Road, Life Park, East, Mumbai - 400 027.
Tel No.: 022-26941267 | Fax No.: 022-26943792
Website: www.dynamicmicrosteppers.com
Email id: dynamicmicrosteppers@rediffmail.com

NOTICE

Pursuant to Regulation 47 read with Regulation 25 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, (as may be amended from time to time), Notice is hereby given that the Meeting of the Board of Directors of the Company is scheduled to be held on Friday, 13th 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 SEBI (Prohibition of Insider Trading) Regulations, 2015, (hereinafter referred to as the "Code"), the Company has designated persons, shall remain closed till the forty-eight hours after the conclusion of Board Meeting convened for considering and approving Un-audited financial results for the quarter and half year ended September 30, 2020.

This information is also available on the website of the company at www.dynamicmicrosteppers.com and on the website of the Stock Exchange where the shares of the Company are listed at www.bseindia.com

For Dynamic Microsteppers Limited
Sd/-
Place: Mumbai
Date: 05.11.2020
Ashwin Shah
Director

**TATA STEEL LIMITED**

Registered Office: Bombay House, 24, Horni 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

Sd/-

Parvathesam Kanchinadham

Company Secretary &

Chief Legal Officer (Corporate & Compliance)

TATA STEEL**Home Credit India Finance Private Limited**

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

(All amount in Rupees lakhs unless otherwise stated)

S. No.	Particulars	Half year ended	Half year ended	Year ended
		30 September 2020	30 September 2019	31 March 2020
		(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	-	-	-
11.	Debt equity ratio	2.56	2.10	2.45
12.	Earnings per share (of Rs. 10/- each)*			
	- Basic	(3.82)	0.23	(0.46)
	- Diluted	(3.82)	0.23	(0.46)
13.	Capital redemption reserve (refer note 5)	Not Applicable	Applicable	Applicable
14.	Debt redemption reserve (refer note 5)	Not Applicable	Applicable	Applicable
15.	Debt service coverage ratio (refer note 5)	Not Applicable	Applicable	Applicable
16.	Interest service coverage ratio (refer note 5)	Not Applicable	Applicable	Applicable

*EPS for six months ended 30 September 2020 and 30 September 2019 has not been annualised

Note:

- 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 necessary, to conform to the classification/ disclosure adopted in the current year.
- 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.

For and on behalf of the Board of Directors of Home Credit India Finance Private Limited

Sd/-

Ondrej Kubik

Director

Place: Gurugram

Date: 6 November 2020

**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**NOTICE OF 85th ANNUAL GENERAL MEETING,****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:

- The 85th Annual General Meeting ('AGM') of the Company will be held on Monday, the 30th 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 3rd November, 2020.
- The Notice of AGM along with Annual Report for the year ended 31st 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 5th 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').
- All the members are informed that:
 - 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, 27th November, 2020 at 9.00 a.m.;
 - The remote e-voting shall end on Sunday, 29th November, 2020 at 5.00 p.m.;
 - The cut-off date for determining the eligibility to vote by electronic means or at the AGM is Friday, 20th November, 2020;
 - Any person, who acquires shares of the Company and becomes member of the Company after dispatch of the Notice of the 85th 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 rtat@bmls.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;
 - 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, 20th 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;
- 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;
- 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.
- 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, 21st November, 2020 to Monday, 30th November, 2020 (both days inclusive) for 85th Annual General Meeting and determining the entitlement of the shareholders for the dividend for the year ended 31st March, 2020.

For J. L. Morison (India) Limited

Sd/-

Sonal Naik

Company Secretary & Compliance Officer

Place: Mumbai

Date: 6th November, 2020**The Shipping Corporation Of India Ltd.**

(A Government of India Enterprise)

Shipping House, 245, Madam Cama Road, Mumbai-400 021. Website: www.shipindia.com

Twitter: @shippingcorp; CIN No.: L63030MH1950GOI008033

STATEMENT OF UNAUDITED FINANCIAL RESULTS FOR THE QUARTER ENDED 30.09.2020

(Amount in ₹ lakhs)

Sr. No.	Particulars	STANDALONE			CONSOLIDATED		
		Quarter Ended 30.09.2020 (Unaudited)	Half Year Ended 30.09.2020 (Unaudited)	Quarter Ended 30.09.2019 (Unaudited)	Quarter Ended 30.09.2020 (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)	13,338	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)	13,338	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)	13,113	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)]	14,111	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	-	-	-	-	-	-
8	Earnings Per Share (of ₹ 10 each) (for continuing and discontinued operations) (in ₹)						
	Basic:	2.82	9.63	(1.21)	3.05	10.28	(0.88)
	Diluted:	2.82	9.63	(1.21)	3.05	10.28	(0.88)

- 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
- Standalone & Consolidated Financial results for the quarter and half year ended 30th September 2020 are in compliance with Indian Accounting Standards (Ind-AS).
- The above results have been reviewed by the Audit Committee and approved by the Board of Directors at their respective meetings held on 6th November 2020.

For The Shipping Corporation of India Ltd

Mrs. H. K. Joshi

Chairperson & Managing Director & Director (Finance) Addl.charge

DIN - 07085755

Place : Mumbai

Date : 06.11.2020

**TRANSPORTING GOODS. TRANSFORMING LIVES.****MRVL**

MANDHANA RETAIL VENTURES LTD.

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	Quarter Ended		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	-	-	-	1,393.10
8	Earnings Per Share (of Rs. 10/- each) (for continuing and discontinued operations) -				
	1. Basic	(0.31)	(11.61)	0.15	(14.06)
	2. Diluted	(0.31)	(11.61)	0.15	(14.06)

Notes:

- 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.
- 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

Sd/-

PRIYAVRAT P. MANDHANA

EXECUTIVE DIRECTOR

DIN: 02446722

Mumbai

06th November, 2020**ARTEMIS**

HOSPITALS

OUR SPECIALITY IS YOU

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	0.11*	4.18*	-8.73*	7.45*	14.95
	(b) Diluted	0.11*	4.18*	-8.73*	7.45*	14.95
	(* Not annualised)					

Annexure-20

PROJECT DETAILS AS PER CTE/CTO APPLICATION

Name Of Occupier : DEEPAK KUMAR AGARWAL
Industry Id : WB0251697797
Industry Name : BRAVO SPONGE IRON PVT LTD.
Industry Address : VII-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
cndslp1@gmail.com

Occupier Email :
Occupier Mobile : 9233337777
Application Number : 274440
Application Type : CTE
Application Date : 05-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/25425/2015
EC Grant Date : 2020-11-05
EC File Number : 3-101/756/2009-IA-II I
Authority : MoEFCC
Name of Authorized Person : DEEPAK KUMAR AGARWAL
:
Designation of Authorized Person : Director



E- Verification Completed

RESPONSE OF THE PROJECT PROPONENT

Proposal No : IA/WB/IND/25425/2015
Registered Email Id: cndslp1@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



E- Verification Completed

Annexure-21

FORMAT NO. ENV/FM/40

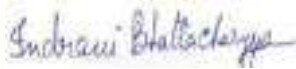
TEST REPORT

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	21.02.2024 - 27.02.2024
			Date of Issue	:	24.02.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Surface Water
Location	:	Mahuda Village Pond	Sample Condition	:	Sealed
			Sample ID No.	:	ENV/609A/Feb./W/I
Report No.	:	ENV/609A/Feb./TR(W)/I/23-24			

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	APHA 23 rd Ed., 4500 H ⁺ B : 2017	-	7.18
2.	Total Suspended Solids	APHA 23 rd Ed., 2540 D : 2017	mg/l	20.0
3.	Total Dissolved Solids	IS 3025 (Part 16) : 1984 : 2014	mg/l	230.0
4.	Dissolved Oxygen	APHA 23 rd Ed., 4500 - OC : 2017	mg/l	6.8
5.	COD	APHA 23 rd Ed., 5220 B/C/D : 2017	mg/l	20.0
6.	BOD [5 Day's at 20°C]	APHA 23 rd Ed., 5210 B : 2017	mg/l	5.0
7.	Oil & Grease	APHA 23 rd Ed., 5520 B/D/ : 2017	mg/l	<1.0
8.	Residual Chlorine	APHA 23 rd Ed., Cl-B : 2017	mg/l	<0.04
9.	Chloride	APHA 23 rd Ed., 4500 Cl-B/D : 2017	mg/l	22.69
10.	Iron	APHA 23 rd Ed., 3111 B : 2017	mg/l	0.12
11.	Arsenic	APHA 23 rd Ed., 3114 B : 2017	mg/l	<0.01
12.	Lead	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.005
13.	Mercury	APHA 23 rd Ed., 3112 B : 2017	mg/l	<0.001
14.	Copper	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.04
15.	Zinc	APHA 23 rd Ed., 3111 B : 2017	mg/l	0.32
16.	Total Chromium	APHA 23 rd 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

Authorised Signatory :


Dr. AJAY 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
Overseas : UAE ■ Qatar ■ Netherlands

FORMAT NO. ENV/FM/40

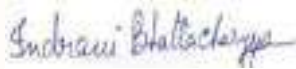
TEST REPORT

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. - Mohuda. P.O. - Rukni, P.S. - Para, Purulia - 723145	Sampling Date	:	20.02.2024
			Period of Analysis	:	21.02.2024 - 27.02.2024
			Date of Issue	:	24.02.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No
			Type of Sample	:	Surface Water
Location	:	Rukmi Village Pond	Sample Condition	:	Sealed
			Sample ID No.	:	ENV/609A/Feb./W/II
Report No.	:	ENV/609A/Feb./TR(W)/II/23-24			

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	APHA 23 rd Ed., 4500 H ⁺ B : 2017	-	7.16
2.	Total Suspended Solids	APHA 23 rd Ed., 2540 D : 2017	mg/l	26.0
3.	Total Dissolved Solids	IS 3025 (Part 16) : 1984 : 2014	mg/l	250.0
4.	Dissolved Oxygen	APHA 23 rd Ed., 4500 - OC : 2017	mg/l	7.0
5.	COD	APHA 23 rd Ed., 5220 B/C/D : 2017	mg/l	26.0
6.	BOD [5 Day's at 20°C]	APHA 23 rd Ed., 5210 B : 2017	mg/l	6.0
7.	Oil & Grease	APHA 23 rd Ed., 5520 B/D/ : 2017	mg/l	<1.0
8.	Residual Chlorine	APHA 23 rd Ed., Cl-B : 2017	mg/l	<0.04
9.	Chloride	APHA 23 rd Ed., 4500 Cl-B/D : 2017	mg/l	27.23
10.	Iron	APHA 23 rd Ed., 3111 B : 2017	mg/l	0.14
11.	Arsenic	APHA 23 rd Ed., 3114 B : 2017	mg/l	<0.01
12.	Lead	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.005
13.	Mercury	APHA 23 rd Ed., 3112 B : 2017	mg/l	<0.001
14.	Copper	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.04
15.	Zinc	APHA 23 rd Ed., 3111 B : 2017	mg/l	0.26
16.	Total Chromium	APHA 23 rd 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

Authorised Signatory :


Dr. AJAY 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
Overseas : UAE ■ Qatar ■ Netherlands

Annexure-22



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



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	:	20.02.2024
4.	Report No.	:	Env/609/S/M(i)/23-24
5.	Reporting date	:	29.02.2024
6.	Type of sample	:	Bed Ash
7.	Location	:	Near AFBC Boiler

PARAMETERS (mg/Lt.)

<u>Zn.</u>	<u>Cu</u>	<u>Ni</u>	<u>Pb</u>	<u>Cd</u>
4.80	2.60	0.90	0.23	0.18

Remarks : Result relates only to the sample tested.

Reviewed By :

DUREADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJAY PAUL
Quality Manager

H.O. : 63/B, Rashtarguru Avenue, Kolkata -700028 ■ Ph. 033 25792891/ 25497490 ■ Fax : 033 25289141
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Overseas : UAE ■ Qatar ■ Netherlands



ENVIROCHECK

Recognised by MoEF&CC, WPCB & JSPCB
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



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	:	20.02.2024
4.	Report No.	:	Env/609/S/M(ii)/23-24
5.	Reporting date	:	29.02.2024
6.	Type of sample	:	SMS Slag
7.	Location	:	Near SMS Division

PARAMETERS (mg/lit.)

<u>Zn.</u>	<u>Cr.</u>	<u>Cu</u>	<u>Ni</u>	<u>Pb</u>	<u>Cd</u>
3.80	0.90	1.26	0.45	0.28	<0.002

Reviewed By :

DUREBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

<End of Report>

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