SHAKAMBHARI GROUP

BRAVO SPONGE IRON PRIVATE LIMITED

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

Ref: -BSIPL/SMC/MoEFCC/OCT 2022 to MARCH 2023

Date: 31.05.2023

To,
The IGF & Incharge
GOI, MoEF&CC,
Integrated Regional Office, Kolkata
IB-198, Salt Lake City, Sector-III
Kolkata - 700106

SUB: Six Monthly (Oct. 2022 to March 2023) Compliance to Environmental Clearance conditions vide MoEF&CC F. No. J-11011/758/2009-IA-II (I) Dated 05th November, 2020 and F. No. J-11011/758/2009-IA-II (I) Dated 18th April, 2017 by M/s Bravo Sponge Iron Pvt. Limited, Vill-Mahuda, PO-Rukni. Dist- Purulia (WB)

Dear Sir/Ma'am,
With reference to the above subject, we are submitting herewith the six monthly compliance report (Period Oct. 2022 to March. 2023) of M/s Bravo Sponge Iron Private Limited, Vill- Mahuda, P.O- Rukini, P.S- Para, Dist- Purulia (WB) as per the directives of Ministry of Environment Forest and Climate Change, Government of India. Point wise compliance status report along with latest environment monitoring data is enclosed for your kind perusal.

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

Kindly acknowledge our submission.

Thanking You.

Yours faithfully,

For **Bravo Sponge Iron Pvt. Limited**

Authorized Signatory

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

Encl: as above

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

Six Monthly Compliance Report

(Period: October, 2022 – March, 2023)

M/S Bravo Sponge Iron Pvt. Limited

Vill-Mahuda, PO-Rukni, PS-Para, Dist- Purulia,

(West Bengal)

SIX MONTHLY COMPLIANCE RPORT

Name of the Project	:	**M/S BRAVO SPONGE IRON PVT. LIMITED**
Environmental Clearance Letter Ref.	:	F. No.: J-11011/758/2009-IA-II(I) dated 05th November, 2020 and F. No.: J-11011/758/2009-IA. II(I), Dated: 18th April, 2017
Period of Compliance Report	:	October-2022 to March-2023

Environmental Clearance F. No.: J-11011/758/2009-IA-II(I) dated 05th November, 2020		
SL	**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 used with input raw material for Pellet Plant
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 Kiln /alternately sold to authorized vendors. 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 Damodar Valley Corporation (DVC). No ground water being extracted.
vi.	100% water consumed annually shall be recharged through water harvesting.	Rain water harvesting pond has been developed within the plant premises to natural recharge of ground water. Further it will be enhanced with implementation of expansion project. The company has/shall adapt ponds in nearby areas and maintain it for rain water harvesting and natural recharge. The company has developed 02 nos. pond in Kashiberia and 01 no. in Govindapur village for rain water harvesting.
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. Hand pump for drinking water facility Solar lighting system in the village Mahuda & Kashiberia total 10 nos.

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

SL	CONDITIONS	COMPLIANCE STATUS
		Construction of health check-up Centre at Kashiberia/Mahuda and Govindapur has been completed and it is operational with suitably qualified medical staff and a visiting doctor for the health benefit of local villagers. Company of school in Kashiberia village is advance stage of completion. The company has developed 02 nos. pond in Kashiberia and 01 no. in Govindpur village for rain water harvesting.
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 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 congaing fine dust being covered with tarpaulin.
x.	40% green belt shall be provided using 2500 trees per ha around the plant boundary.	Company has already achieved the target of 33% green belt development by plantation of 13500 plants of different indigenous species covering 5.38 Ha maintaining the tree density approx. 2500/ha area against previous EC. In the ongoing project area approx. 12600 trees have been planted up to 30th May 2023 covering 5.03 Ha land with tree density of about 2500/ha under the green belt development in and around the plant boundary.
xi.	85-90% rolling shall be done as hot charged. Use of LDO shall be practiced in RHF whenever it is run. FO and Pulverized coal shall not be used.	It shall be complied as per direction. The Rolling mill yet to be implemented.
xii.	Air cooled condensers shall be used.	Air cooled condenser is already installed.
xiii.	PM emission from the stacks shall be less than 30mg/Nm^3.	It is being/shall be complied with the unit under expansion project. Existing projects complies with emission standards as stipulated in previous EC and West Bengal Pollution Control Board. Latest stack monitoring reports of existing running project are attached as **Annexure-3**
xiv.	Energy conservation measures like use of VFD; Slip power recovery etc. shall be adopted.	VFD has already provided at strategic location like ID/FD fan/high power consuming motors etc. for slip power recovery and it shall also be adapted with upcoming implementation projects.

Bravo Sponge Iron Pvt. Ltd. RAKHA PURULIA

SL	CONDITIONS	COMPLIANCE STATUS
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. Bravo Sponge Iron Pvt. Limited has obtained CTO 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 05th November, 2020, the CTE for proposed expansion projects. The CTOs for Pellet Plant, PGP and DRI-1x350 TPD along with CTO of already installed units against previous EC vide F. No.: J-11011/758/2009-IA-II(I) dated 18th April, 2017, has also been obtained from WBPCB. Copy of existing CTE & CTOs attached as **Annexure-4A &4B**
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 and Pellet Plant and monitored data being remitted to CPCB & SPCB through online server. Ambient Air Quality Monitoring (AAQM) being done at four locations periodically through NABL accredited agency. Continuous Ambient Air Quality Station (CAAQS) for monitoring shall be installed. Latest Ambient Air Quality Monitoring reports are attached as **Annexure-5**
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-6**
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 the strategic 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 dust prone locations to control the fugitive dust emissions. BSIPL have deployed mobile water tankers for dust suppression on the road and minimizing fugitive emissions.

Bravo Sponge Iron Pvt. Ltd. RAKHA PURULIA

SL	CONDITIONS	COMPLIANCE STATUS
iv.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Functioning of bag filters being monitored by suitably skilled manpower and observations noticed being promptly attended. Leakage detection and mechanized bag cleaning facilities have been provided for the bag filter units installed under expansion 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 at Pellet Plant whereas coal fines used for captive power generations.
vi.	The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.	It is being/shall be complied. Covered transportation of raw materials being done to prevent spillage and dust generation.
vii.	The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.	Proper fume extraction system has been provided attached with bag filter and stack. Stack monitoring and work zone monitoring report is attached as **Annexure-3 & 6**
viii.	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	Raw Material stock piles are being covered for providing proper wind shelter. Water sprinkling also being done to prevent fugitive emission due to wind pressure. Wind shelter shall also be provided.
ix.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	Suitable ventilation is provided for proper air circulation in such areas for all tunnels, motor houses, Oil Cellars with implementation of projects.
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 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online services and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Recycling and reuse practice is being followed for return cooling water. Back wash/reject water from softener plant being collected in neutralization/homogenization tank and reused for dust suppression & bed ash cooling. Effluent generated beyond the above if any being treated in ETP and used for green belt development and sprinkling for dust suppression. Last Effluent monitoring report analyzed by NABL accredited laboratory is enclosed as **Annexure-7**
ii.	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of	Ground Water Quality has been monitored by NABL accredited laboratory. No ground water being extracted

Bravo Sponge Iron Pvt. Ltd. RUNNI PURULIA

SL	CONDITIONS	COMPLIANCE STATUS
	piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	by the company, hence there is no scope of affecting the ground water level due to industrial activities. Latest ground water monitoring report, sample taken from Mohuda village is attached as **Annexure-8**
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. Sewage Treatment Plant shall be installed with implementation of the project.
v.	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.	Stock piles are kept suitably covered with tarpaulin to check and prevent water contamination due to rain. Concreted raw material yard with garland drain has been constructed to check the water pollution due to surface run off.
IV.	**Noise monitoring and prevention**	
i.	Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	It is being complied. Latest Ambient & Work Zone Noise monitoring reports are enclosed as **Annexure-9 & 10**
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 have 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-11**

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

SL	CONDITIONS	COMPLIANCE STATUS
iii.	Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried and briquetted and reused in melting Furnaces.	Noted. It shall be complied with implementation of rolling mill project. Rolling mill project yet to be implemented.
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.	Company has already achieved the target of 33% green belt development by plantation of 13500 plants of different indigenous species covering 5.38 Ha maintaining the tree density approx. 2500/ha area against previous EC. In the ongoing project area approx. 12600 trees have been planted up to 30th May 2023 covering 5.03 Ha land with tree density of about 2500/ha under the green belt development in and around the plant boundary. The company has planned a massive plantation drive during ensuing monsoon season. Post plantation work for nourishment of the plants being done on regular basis. Some photographs of plantation are attached as **Annexure-12**
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 compiled and 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 and submitted based on different kind of operation process and 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 as per direction. 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.

Bravo Sponge Iron Pvt. Ltd. RANI PURULIA

SL	CONDITIONS	COMPLIANCE STATUS
		Last health surveillance report attached as **Annexure-16**
IX.	**Corporate Environment Responsibility**	
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.	Environmental protection measures have been implemented for effective compliance recommended in EIA/EMP reports. BSIPL has initiated to comply with socio-economic development activities in surrounding villages. As a part of CSR, we have developed health checkup center equipped with health checkup facilities and qualified medical staff, facilitating study materials to the school students (school bags and books, pencil box, water bottle etc.) of nearby villages. Construction of two health check-up Centre at Kashiberia/Mahuda and Govindapur village has been completed and it is operational with suitably qualified medical staff and a visiting doctor for the health benefit of local villagers. School building in the village Kashiberiya is under advance stage conpletion, drinking water in nearby Mahuda village and renovation of village pond etc. Under enterprise social commitment providing jobs to the local people and contribution towards social causes etc. 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. 

SL	CONDITIONS	COMPLIANCE STATUS
		BSIPL have in placed reporting system for non-compliance/violation of environmental norms. Board of Directors 
iii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.	An environmental cell has been set up under the supervision of Senior Executive to look after the day to day activities pertaining to environment & pollution control issues of the company.
X.	**Miscellaneous**	
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it as least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	It has been complied Advertainment was done on 07.11.2020 in the newspaper; Aajkal (Bengali) and Millennium Post (English) respectively. Copy of newspaper cuttings are attached as **Annexure-17** Granted EC copy has been available under 'Environmental Orders' column on the company website permanently http://shakambhariispat.com/environmental-orders
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	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 NOx.

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

SL	CONDITIONS	COMPLIANCE STATUS
	projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Latest Ambient Air Quality monitoring and stack monitoring reports are enclosed in **Annexure-5 & 3**
v.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	It shall be complied.
vi.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	It is being complied on regular basis. Previous year Environment Statement in Form-V has already been submitted to SPCB with a copy to MoEFCC Regional Office Kolkata and also uploaded on company's website. The environment statement of the ending financial year 31st March, 2023 will be submitted in Form-V and compliance status will be displayed on the company's website as per direction.
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.	It is complied Date of financial closure of the project is 17.11.2020 Land development work started w.e.f. 12.11.2020 E-verification of the project status has been submitted on the link as asked by MoEFCC. E-verification copy attached as **Annexure-18.**
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 as has been discussed in previous poins. The pollution control facilities like bag filters, ESPs, closed conveying system, dust extraction system on different transfer points, water sprinkling on roads and other dust prone areas for fugitive dust suppression, construction of health checkup center and operating with qualified medical staff at Kashiberia/Mahuda and Govindaspur village, safety appliances to the workers, drinking water arrangements for the villagers as per requirement, solar lighting system on Kashiberia and Mahuda village has been implemented. Construction of school is under advance stage of completion in Kashiberia village.

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SL	CONDITIONS	COMPLIANCE STATUS
		Rain water harvesting pond in Kashiberia and Govindapur village 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 if found necessary. The Company in a time bound manner shall implement these conditions.	Noted. The company shall be abide with the stipulations and direction made by Hon'ble MoEFCC.
xiii.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Noted. It shall be adhered.
xiv.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.

Environmental Clearance F. No.: J-11011/758/2009-IA.II(I), Dated: 18th April, 2017		
Sl. No.	**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 3.**
2.	In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant etc. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading handling and storage of raw materials etc.	We have already installed de-dusting systems like bag filters and ESPs for an effective control of dust emissions. Dust extraction system has been provided at the strategic points attached with bag filter units for cooler discharge, intermediate bin and product house and separation house. Fixed type water sprinklers for dust suppression at raw material handling system along the conveyor, finished product house area, cooler discharge, along with Kiln axis and all other dust prone locations. BSIPL have deployed movable water tankers for dust suppression on the road and minimizing fugitive emissions. Latest fugitive emissions (work Zone) monitoring report is attached as **Annexure-6**
3.	The COD level in the effluent should be maintained at the prescribed standard and the STP effluent is to be recycled within the premises.	Recycle and Reuse practice has been adapted by us and no effluent being discharged outside factory premises. For domestic effluent septic tank followed by soak pit facility has been provided. Effluent analysis report is enclosed as **Annexure-7**
4.	No effluent shall be discharged outside the plant premises and 'zero' discharge shall be adopted.	We are adapting recycle and reuse practice and no effluent being discharged outside the factory premises.
5.	Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control device viz. Electrostatic Precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.	Online Continuous Emission Monitoring System (OCEMS) have been installed at Stacks of DRI and CPP. Air pollution control devices viz. ESPs and bag filters along with dust extraction and suppression system have been installed and efficiently operated to control emission level well within the norms. Third party monitoring by NABL accredited laboratory being conducted periodically to evaluate the emission levels. Latest stack monitoring report in enclosed as **Annexure-3**

6.	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 as manure for green belt development.
7.	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 devlopment with tree density of 2500/ha has been completed by plantation of 13500 plants of different indigenous species covering 5.38 Ha maintaining the tree density approx. 2500/ha area against 16.30ha land this EC. Plantation has been done using indigenous species i. e. Mehagini, Segun, Pakur, Radhachura, Neem, Bakul, Shishu, Jarul, Arjuna, Sonajuri, Kadam, Pepal etc. along the plant periphery as well as inside the plant and we have achieved the desired target of plantation. Regular maintenance being done for sustainability of the plants. Some pictures are attached as **Annexure-12**
8.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th November 2009 shall be followed.	It is being followed. Latest Ambient Air Quality Monitoring report is attached as **Annexure-5**
9.	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R.414 (E) dated 30th May, 2008 and regularly monitored. Guidelines /Code of Practice issued by the CPCB shall be followed.	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-6**
10.	Regular monitoring of influent and effluent, surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.	It is being complied. Latest effluent, ground water & surface water analysis report is enclosed as **Annexure-7, Annexure-8 & Annexure-19**

Bravo Sponge Iron Pvt. Ltd. RAIKA PURULIA

11.	Proper handling, storage, utilization and disposal of the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid / hazardous waste shall be submitted to the Ministry's Regional Office, SPCB or CPCB.	Proper handling, storage, utilization and disposal of solid waste being done. Analysis of toxic metal content in the solid waste being periodically carried out by approved agency. The monitoring report is enclosed as **Annexure-20**
12.	A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.	Dolochar generated from sponge iron plant is being utilized in AFBC boiler of the captive power plant. Fly ash is being utilized in fly ash brick manufacturing and provided to brick manufacturing units. Induction Furnace slag and Bottom Ash are being used for land filling and road construction work.
13.	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-11**
14.	Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.	Complied.
15.	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-12** Post plantation work for nourishment of the plants being done on regular basis.
16.	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.

17.	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.
18.	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.
19.	The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.	Complied. We have already installed the solar lighting system in strategic areas as directed.
20.	The project proponent shall provide for LED lights in their offices and residential areas.	Complied.
21.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	It is being complied.
B-GENERAL CONDITIONS:		
1.	The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board and the State Government.	Being adhered as per the stipulation made by WBPCB and State Government. Consent to Operate obtained from WBPCB is attached as **Annexure-4B**
2.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF& CC).	It shall be complied with.

3.	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM_{10}, $PM_{2.5}$, SO_2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneshwar and the SPCB/CPCB once in six months.	Ambient Air Quality Monitoring being carried on four locations. Latest Ambient Air Quality monitoring reports for PM_{10}, $PM_{2.5}$, SO_2, NO_2 and stack monitoring report is enclosed in **Annexure-5 & Annexure-3**
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. Latest analysis report of treated effluent is enclosed as **Annexure-7**
5.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB(A)) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Noise control measures has already been implemented to keep the noise level well within the 85 dB(A) and ambient noise level below 75 dB(A) (during day time) and 70 dB(A) (during night time). Work Zone and Ambient Noise Monitoring report is enclosed as **Annexure-9 & Annexure-10**
6.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Occupational health surveillance program has been taken as a regular exercise for the employees and records are maintained. Health cards of some employees are enclosed as **Annexure-16**
7.	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Rain water harvesting structure has been developed within the plant to harvest the rain water.
8.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Environmental protection measures have been implemented for effective compliance recommended in EIA/EMP reports. We have initiated to comply with socio-economic development activities in surrounding villages. As a part of Enterprise Social Commitment, we are providing jobs to the local people and facilitating study materials to the school students (school bags and books, pencil box, water bottle etc.) of nearby villages, and contributing towards social causes etc.

Bravo Sponge Iron Pvt. Ltd. RAGHUNATHPUR PURULIA

9.	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEF& CC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneshwar. The funds so provided shall not be diverted for any other purpose	Requisite funds have been earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by MoEF& CC. Accordingly necessary facilities like ESPs, attached with AFBC and WHRB followed by silos, bag filters along with dust extraction system, Water sprinkling system for fugitive dust suppression, water tankers for dust suppression on roads, green belt development and water recycling system etc. have been installed for abatement of the environmental pollution. Suitable manpower are engaged for an efficient operation, monitoring and maintenance of the devices installed.
10.	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied.
11.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF& CC at Bhubaneshwar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	It is being complied. Compliance status report being periodically uploaded on company's website. http://shakambhariispat.com/environmental-compliance
12.	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF& CC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar/CPCB/SPCB shall monitor the stipulated conditions.	Six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data being submitted to MoEF& CC and Pollution Control Board. It is submitted in soft copy only as per direction of Hon'ble MoEFCC F. N0. 106-12/EPE dtd. 11.05.2020

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

13.	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MoEF&CC at Bhubaneshwar by e-mail.	It is being complied. The environment statement for Financial Year 2022-23 shall be submitted to WBPCB with copy to Regional Office of the MOEF&CC and the report shall be uploaded on the company's website as per direction.
14.	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF& CC) at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar.	Complied.
15.	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	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) :	**Bravo Sponge Iron Pvt. Ltd** **Vill-Mohuda, PO-Rukni, P.S-Para,** **Dist- Purulia, West Bengal, Pin-723145** **Email : bravosponge15@gmail.com**
2.	Sender's authorisation No. :	
3.	Manifest Document No. :	**9213117333 dt. 21-02-2023**
4.	Transporter's name and address: (including Phone No. and e-mail)	
5.	Type of vehicle :	Tanker
6.	Transporter's registration No. :	
7.	Vehicle registration No. :	WB23B7057
8.	Receiver's name and mailing address (including Phone No. and e-mail) :	**Choudhary Hydro Carbon Pvt Ltd** **Jalan Industrial Complex, Gate no.3** **PO-Begri, PS-Domjur, Howrah-711411,** **West Bengal, (M)-9339740130**
9.	Receiver's authorisation No. :	CO 125025 Memo No.Co16/11-PCB-HOW-367-2005
10.	Waste description :	TAR
11.	Total quantity : No. of Containers :	24.900 MT 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 2 1 0 2 2 0 2 3
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 2 1 0 2 2 0 2 3

CHOUDHARY HYDRO CARBON PVT. LTD. Kolkata

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) :	**Bravo Sponge Iron Pvt. Ltd** **Vill-Mohuda, PO-Rukni, P.S-Para,** **Dist- Purulia, West Bengal, Pin-723145** **Email : bravosponge15@gmail.com**
2.	Sender's authorisation No. :	
3.	Manifest Document No. :	**9213109372 dt.06-09-2022**
4.	Transporter's name and address: (including Phone No. and e-mail)	
5.	Type of vehicle :	Tanker
6.	Transporter's registration No. :	
7.	Vehicle registration No. :	WB11C7049
8.	Receiver's name and mailing address (including Phone No. and e-mail) :	**Choudhary Hydro Carbon Pvt Ltd** **Jalan Industrial Complex, Gate no.3** **PO-Begri, PS-Domjur, Howrah-711411,** **West Bengal, (M)-9339740130**
9.	Receiver's authorisation No. :	CO 125025 Memo No.Co16/11-PCB-HOW-367-2005
10.	Waste description :	COALTAR
11.	Total quantity : No. of Containers :	15.980 MT 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 0 6 0 9 2 0 2 2
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 0 6 0 9 2 0 2 2

CHOUDHARY HYDRO CARBON PVT LTD Kolkata

Annexure - 2

Annexure - 3

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	:	24.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/I	Report No.	:	ENV/64/Feb./TR(A)/I/22-23	

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln (No. 1 & 2) attached to 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 – 95 TPD	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	^0C	IS 11255 (Part 1)	:	151.0
2.	Barometric Pressure	mm of Hg.	--	:	758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	12.0
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	84125.12
5.	Concentration of SO_2	mg/Nm^3	IS 11255 (Part 2) 1985 RA 2003	:	555.33
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) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) :	:	26.80
	b) Concentration of Particulate Matter (at 12% CO_2)		Sec. 11 (Vol. 3 11.07) : 2011	:	29.23

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

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	:	24.02.2023		
					Period of Analysis	:	25.02.2023 – 27.02.2023		
					Date of Issue	:	28.02.2023		
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/64/Feb./A/II	Report No.	:	ENV/64/Feb./TR(A)/II/22-23	

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln (No. 3 & 4) attached to 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	^0C	IS 11255 (Part 1)	:	158.0
2.	Barometric Pressure	mm of Hg.	--	:	758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	12.10
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	74799.10
5.	Concentration of SO_2	mg/Nm^3	IS 11255 (Part 2) 1985 RA 2003	:	567.14
6.	Concentration of CO_2	% (v/v)	IS 13270 1992 RA 2003	:	10.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	a) Concentration of Particulate Matter (at 10.8% CO_2)	mg/Nm^3	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) :	:	17.54
	b) Concentration of Particulate Matter (at 12% CO_2)		Sec. 11 (Vol. 3 11.07) : 2011	:	19.49

Remarks :

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

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	:	24.02.2023		
					Period of Analysis	:	25.02.2023 – 27.02.2023		
					Date of Issue	:	28.02.2023		
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/64/Feb./A/III	Report No.	:	ENV/64/Feb./TR(A)/III/22-23	

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	:	Oxidation of Coal & Reduction of Fe-Ore			
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	^0C	IS : 11255 (Part 1)	:	144.0
2.	Barometric Pressure	mm of Hg.	--	:	758.0
3.	Velocity of Gas flow	m/s	IS : 11255 (Part 3)	:	10.33
4.	Quantity of Gas flow	$Nm^3/hr.$	IS : 11255 (Part III)	:	98816.46
5.	Concentration of SO_2 (at 6% O_2)	mg/Nm^3	IS 11255 (Part 2) : 2019	:	576.92
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	:	205.64
7.	Concentration of CO_2	% (v/v)	IS 13270 : 2019	:	10.4
8.	Concentration of O_2	% (v/v)	EPA Method 3 : 2017	:	8.4
9.	Concentration of CO	%(v/v)	IS 13270 : 2019	:	<1.0
	a) Concentration of Particulate Matter	mg/Nm^3	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	:	22.36
	b) Concentration of Particulate Matter (at 6% CO_2)	mg/Nm^3		:	26.61

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

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	:	24.02.2023	
					Period of Analysis	:	25.02.2023 – 27.02.2023	
					Date of Issue	:	28.02.2023	
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/64/Feb./A/IV	Report No.	:	ENV/64/Feb./TR(A)/IV/22-23

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Hood Over 2 nos. Induction Furnace attached to common stack			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	30.6
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	0.6
Capacity	:	15 MT/Charging (each furnace)	Height of sampling port (mtr.) (from G.L.)	:	--
Emission Due to	:	Melting of Sponge Iron, Pig Iron Scraps etc.			
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	^{O}C	IS 11255 (Part 1)	:	56.0
2.	Barometric Pressure	mm of Hg.	--	:	758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	9.31
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	8561.54
5.	Concentration of Particulate Matter	mg/Nm^3	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	:	37.06

Remarks :

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

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	:	24.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/V	Report No.	:	ENV/64/Feb./TR(A)/V/22-23	

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Fe-Ore Pallet Formation Stack			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	50.0
Materials of Construction	:	Concrete	Stack I.D. at sampling point (mtr.)	:	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	^0C	IS 11255 (Part 1)	:	114.0
2.	Barometric Pressure	mm of Hg.	--	:	758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	11.46
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	223718.68
5.	Concentration of SO_2 (at 6% O_2)	mg/Nm^3	IS 11255 (Part 2) 1985 RA 2003	:	43.58
6.	Concentration of CO_2	% (v/v)	IS 13270 1992 RA 2003	:	9.0
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	Concentration of Particulate Matter	mg/Nm^3	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	:	28.54

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

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	:	24.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/VI	Report No.	:	ENV/64/Feb./TR(A)/VI/22-23	

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

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

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	^{O}C	IS 11255 (Part 1)	:	57.0
2.	Barometric Pressure	mm of Hg.	--	:	758.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	9.33
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	5933.26
5.	Concentration of Particulate Matter	mg/Nm^3	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	:	15.87

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

Annexure – 4A

NOC NO164516

WEST BENGAL POLLUTION CONTROL BOARD

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

Memo No. 349-2N-117/2007(E)-Pt. Dated 10.11.2020

From :
Member Secretary,
West Bengal Pollution Control Board

To : M/s. Bravo Sponge Iron Private Limited,
41,A,J,C, Bose Road, Diamond Prestige, 8th Floor,Room No.801,
Kolkata - 700 017.

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

Ref : i) Your letter No. Nil Dated 09.11.2020
ii) Env. Clearance issued by MoEF&CC vide F.No.J-11011/758/2009-IA-II(I) dtd.05.11.2020.

WEST BENGAL

Dear Sirs,

In response to the application for Consent to Establish (NOC) for proposed Unit of M/s Bravo Sponge Iron Private Limited for proposed expansion of existing steel plant by installation of pellet plant with grinding facility(2x0.85MTPA),sponge for manufacturing/storage/installation x Iron plant (1x350TPD Kiln),Induction Furnaces (3x25T), Capacity revision from 600TPD to1000TPD of Rolling Mill alongwit 7MW capacity Captive Power Plant(WHRB based utilizing waste heat from the proposed sponge plant) and Producer Gas Plant(12x4000Nm^3/hr) at *

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

* Vill-Mahuda, P.O.Rukni, P.S.-Para, Dist.-Purulia, West Bengal.

The overall configuration of thePlant after expansion will be as per**

1. The quality of sewage and trade effluent to be discharged from your factory shall satisfy the permissible limits as prescribed in IS : 2490 (Pt. I) of 1974, and/or its subsequent amendment and Environment (Protection) Rules 1986.

** Annexure -I.

2. Suitable measures to treat your effluent shall be adopted by you in order to reduce the pollutional load so that the quality of the effluent satisfies the standards mentioned above.

3. You shall have to apply to this Board for its consent to operate and discharge of sewage and trade effluent according to the provisions of the water (Prevention & Control of Pollution) Act, 1974. No sewage or trade effluent shall be discharged by you without prior consent of this Board.

4. All emission from your factory shall conform to the standards as laid down by this Board.

5. No emission shall be permitted without prior approval of this Board and you shall apply to this Board for its consent to operate and atmospheric emission as per provision of the Air (Prevention & Control Pollution) act, 1981.

6. No industrial plant, furnace, flues, chimneys, control equipment, etc. shall be constructed/reconstructed/ erected/re-erected without prior approval of this Board

7. You shall comply with
   (i) Water (Prevention and Control of Pollution) Cess Act, 1977, if applicable.
   (ii) Water (Prevention and Control of Pollution) Cess Act, 1978, if applicable.
   (iii) Environment (Protection) Act, 1986
   (iv) Environment (Protection) Rules, 1986
   (v) Hazardous Wastes (Management and Handling) Rules, 1989 and Amended Rules, 2000
   (vi) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Amended Rules, 2000
   (vii) Manufacture, Use, Import and Storage and Hazardous Micro-Organisms, Genetically Engineered Organisms or Cell Rules, 1989
   (viii) The Public Liability Insurance Act, 1991 and Amended Act, 1992
   (ix) The Public Liability Insurance Rules, 1991 and Amended Rules 1993
   (x) Biomedical Wastes (Management & Handling) Rules, 1998 and Amended Rules 2000 if applicable.
   (xi) Recycled Plastics Manufacture and Usage Rules 1999, if applicable and
   (xii) Ozone Depleting Substances (Regulation & Control) Rules, 2000, if applicable

8. You will have to abide by any other stipulations as may be prescribed by any authority/local bodies/Government Departments etc.

SPECIAL CONDITION :

Total Capital Cost of the project - Rs.475 Crores.

please refer to Annexure - II

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

Yours faithfully,

10/11/2020

Member Secretary, / SR. ENV. ENGR.
West Bengal Pollution Control Board (ESM CELL)
Sr. Environmental Engineer
W.B. Pollution Control Board
Dept. of Environment, GoWB

Memo No. 349 -2N-117/2007(E)-Pt. Dated 10.11.2020

Copy forwarded for information to :

1. Chief Inspector of Factories, Government of West Bengal, N. S. Building, Kolkata-700 001
2. Director of Industries/Director of Cottage & Small Scale Industries, Government of West Bengal, N. S. Building. Kolkata-700 001
3. Guard file, West Bengal Pollution Control Board.
4. Environmental Engineer, I/II/Alipur R.O./Howrah R.O./Hooghly R.O./B.R.O./D.R.O./Haldia R.O./S.R.O./ Asansol/ Sub-R.O./WBPC Board

Himalaya Bhawan
Delhi Road, Dankuni
Dist. Hooghly

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

Sahid Khudiram Sarani
City Centre, Durgapur-16
Dist. Burdwan

10, Camac Street
2nd Floor
Kolkata-700 017

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

Block-05 at 40
Flats Complex
Adjacent to Priyambada
Housing Estate
P.O. : Khanjanchak,
P.S. Durgachak
Haldia-721602
Dist. : Purba Medinipur

Paribahan Nagar
Matigara, Siliguri
Dist.-Darjeeling

Satya Chowdhury
Indoor Stadium
Balurchar Bandh Road
Malda-732101

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

10/11/2020

Member Secretary/ SR. ENV. ENGR.
West Bengal Pollution Control Board (ESM CELL)
Sr. Environmental Engineer

Annexure – I to the NOC Sl. No. NO164516

S.No	Unit	Units as per State Clearance	Units as per MoEF&CC EC dated 18.04.17	Total	Units under operation	Balance units		Proposed expansion	Final configuration
						Under implementation	To be implemented		
1	Pellet Plant with Grinding Facility	-	-	-	-	-	-	**2 X 0.85 MTPA**	1.7 MTPA
2	Sponge Iron Plant	1X100 TPD (as per NOC dated 5.12.2002) + 1x95 TPD (as per State EC dated 24.03.2008)	2X100 TPD	1X100 TPD + 1x95 TPD + 2X100 TPD	1X100 TPD + 1x95 TPD + 2X100 TPD	-	-	**1 X 350 TPD**	745 TPD (1X100 TPD + 1x95 TPD + 2X100 TPD + 1X350 TPD)
3	SMS (Induction Furnace with CCM)	-	600 TPD (4 x 15 T)	600 TPD (4 x 15 T)	300 TPD (2 x 15 T)	150 TPD (1 x 15 T)	150 TPD (1 X 15T)	**750 TPD (3 x 25T)**	1350 TPD (4 x 15 T + 3 x 25T)
4	Rolling Mill	-	600 TPD	600 TPD	-	-	600 TPD*	**Capacity revision from approved 600 TPD* to 1000 TPD**	1000 TPD
5	Captive Power Plant	-	18 MW (8 MW WHRB + 10 MW AFBC)	18 MW (8 MW WHRB + 10 MW AFBC)	10 MW (4x10 TPH WHRB + 1X20 TPH AFBC*)	-	8 MW (1X20 TPH Proposed AFBC + *Balance 12 TPH Steam from existing AFBC)	**7 MW WHRB**	25 MW (15 MW WHRB + 10 MW AFBC)
6	Producer Gas Plant	-	-	-	-	-	-	**12 x 4000 Nm^3/hr**	48,000 Nm^3/hr

10/11/2020.

Sr. Environmental Engineer
W. B. Pollution Control Board
Dept. of Environment, GoWB

Annexure – II to NOC Sl. No. NO164516

Special conditions issued to M/s. Bravo Sponge Iron Pvt. Ltd. at Vill – Mahuda, PO – Rukni, PS – Para, Dist – Purulia, West Bengal (Expansion Project)

A) **Emission Details** :-

As per Annexure – I

1. The 95 TPD DRI unit shall be upgraded to 100 TPD with installation of 2MW WHRB.
2. Particulate emission from all stacks shall be less than 30mg/Nm^3.
3. Stacks should have sampling port, platform and ladder as per the Emission Regulation Part–III of CPCB.
4. The project proponent shall install 24X7 continuous monitoring system in the process stacks to monitor stack emission and connected to SPCB and CPCB's servers.
5. All roads inside the plant shall be paved, vacuum cleaners shall be provided to clean roads and shop floors.
6. The project proponent shall install continuous ambient air quality monitoring system for monitoring in at least 4 locations covering upwind and downwind directions as directed by MoEF&CC and connected to SPCB and CPCB's servers.
7. Effective fugitive emission control measures should be imposed in the project. Water spray systems shall be included to control fugitive dust from RM Stockpiles.
8. All dust generated and collected from the plant roads, floors and bag houses/ESPs shall be recycled to Pellet Plant.
9. The National Ambient Air Quality Emission Standards issued by MoEF vide G.S.R 826(E) dated 16th November, 2009 should be complied with.
10. Dry fog system and water sprinklers to be installed to arrest fugitive emission.
11. De-dusting system like bag filters should be present in all areas of material handling, separation, product house, intermediate bins, transfer points etc.
12. 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.
13. Air cooled condensers shall be used.
14. Energy conservation measures like use of VFD, Slip power recovery etc. shall be adopted.

B) **Effluent:-**

1) Process effluent generated will be treated in appropriately designed Effluent Treatment Plant. The treated effluent to be utilized within the plant premises. Zero Discharge Principle should be strictly adhered to.
2) Tar and oil separator/skimmer should be provided in the Producer Gas Plant. The schemed Tar/Oil shall be stored separately and disposed off as per the Hazardous Wastes (Handling and Trans-boundary Movement) Rules, 2016 and its subsequent amendments. Phenolic waste water should be recycled.
3) Cooling water to be recycled.
4) Domestic effluent shall be treated in appropriately designed Sewage Treatment Plant and the discharge shall comply with the stipulated standards.

consent to operate and atmospheric emission as per provision of the Air (Prevention & Control
1981.

Annexure – II to NOC Sl. No. NO164516
Special conditions issued to M/s. Bravo Sponge Iron Pvt. Ltd. at Vill – Mahuda, PO – Rukni, PS – Para, Dist – Purulia, West Bengal (Expansion Project)

5) The project proponent shall install 24X7 continuous effluent monitoring system as directed by MoEF&CC.

6) 100 % water consumed annually shall be recharged through water harvesting. Detailed water harvesting plan should be implemented and submitted to the Regional Office of the Board.

C) Solid Waste : -

1. Fly ash to be sold to cement manufacturing units.
2. Dolo-char to be used in AFBC.
3. Bottom ash and slag form induction furnace to be used for land filling and road making.
4. Hazardous Waste to be collected and disposed of as per the Hazardous Wastes (Handling and Trans-boundary Movement) Rules, 2016 and its subsequent amendments.
5. The project proponent shall ensure 100% utilization of solid waste generated by the plant.
6. Dumping of wastes is permitted only at designated locations.

D) Greenbelt :-

1. 40 % green belt shall be provided using 2500 trees per ha around the plant boundary.

E) General :-

1) **All conditions laid down in the Environmental Clearance obtained for the expansion project from MoEF, GoI vide no. J-11011/758/2009-IA II (I) dated 05.11.2020 must be strictly followed.**

2) Noise Control – Ambient noise & D. G. Set noise level not to exceed the permissible limit.

3) No additional machinery / equipments can be installed without permission from this board.

3) Adequate arrangement for dust suppression in raw material handling section to be provided.

4) Rain water harvesting must be done however recharging of harvested rain water is not allowed under any circumstances.

5) The conveyor belt for transferring materials to day bins & skip hoist to be covered.

6) Good house-keeping to be maintained.

7) All requisite permissions / compliance / certificates / licenses from the Competent Authority shall be obtained.

8) Permission for extracting ground water must be obtained from the competent authority.

9) Project proponent should not undertake any activity on any portion of land which is not under their possession.

10) Monitoring of compliance of the Environmental Clearance conditions should be submitted with third party audit reports every year.

11) This NOC is valid up to **30.11.2027** for setting up the expansion project.

10/11/2020

Member Secretary/Sr. Environmental Engineer (EIM Cell)
West Bengal Pollution Control Board

Sr. Environmental Engineer
W. B. Pollution Control Board
Dept. of Environment, GoWB

WEST BENGAL POLLUTION CONTROL BOARD
(Department of Environment, Govt. of West Bengal)
Paribesh Bhawan, 10A, Block - LA, Sector-III
Bidhannagar, Kolkata-700 098, India
Tel : 2335 - 9088 / 7428 / 8211 / 6731 / 0261 / 8861 / 5868 / 1625
Fax : 2335 - 5868 / 2813
City Code : 33, Country Code : 91
Website: **www.wbpcb.gov.in**

Memo No. 355 **–2N-117/2007(E)** **Dated :** 28 **.06.2018.**

To
M/s Bravo Sponge Iron Pvt. Ltd.
'Diamond Prestige', 41A, A.J.C. Bose Road
8th Floor, Room no. 801
Kolkata - 700017

Sub : Amendment of the Consent to Establish (NOC) no. NO147027 issued vide memo no. 264-2N-117/2007(E) dated 09.06.2017.

Ref: Your letter dated 26.06.2018.

Sir,
With reference to the above this is to inform you that the Consent to Establish (NOC) no. NO147027 issued vide memo no. 264-2N-117/2007(E) dated 09.06.2017 is hereby amended as follows:-

In Annexure of the above mentioned 'NOC', under section "A) Emission:-" Sl. No.s 1 and 2. Should be read as follows:

Sl. No	Emission sources	Air Pollution Control System	Stack (Nos. & height from GL in m.)
1.	Sponge Iron Plant		
	Rotary Kiln (2x100TPD)	4 MW capacity WHRB followed by three field individual ESP for each individual 100 TPD rotary kiln and one common stack for both rotary kilns	01 no. , 30 m
	Individual bag filters to be installed at cooler discharge, product house, intermediate bin, coal crushing section and other dust prone areas with individual stacks, each of height 30 meters.		
2.	Captive Power Plant -18 MW (8 MW from WHRB & 10 MW from AFBC boiler)		
	AFBC Boiler (1 x 10 MW)	Lime scrubber followed by 3 field ESP	45 m
	WHRB (2X4 MW, one each for individual 100 TPD rotary kilns)	ESP with individual kiln	One common stack for both rotary kilns

This is to be treated as an annexure to the Consent to Establish (NOC) no. NO147027 issued vide memo no. 264-2N-117/2007(E) dated 09.06.2017. Please note that all other conditions as mentioned in the said NOC will remain unchanged.

Yours faithfully,

28.06.2018
Senior Environmental Engineer (EIM Cell)
West Bengal Pollution Control Board

SPEED POST

NOC NO147027

WEST BENGAL POLLUTION CONTROL BOARD

Paribesh Bhawan
10A, Block-LA, Sector-III
Bidhannagar, Kolkata-700 098

Memo No. 264-2N-117/2007(E) Dated 09.06.2017

From :
Member Secretary,
West Bengal Pollution Control Board

To : M/s. Bravo Sponge Iron Pvt. Ltd.
Diamond Prestige, 41A, A.J.C. Bose Road,
Room No. 801, 8th Floor, Kolkata 700017. West Bengal.

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

Ref : Your letter No. nil Dated 22.05.17 & 07.06.17

Dear Sirs,

In response to the application for Consent to Establish (NOC) for proposed expansion Unit of M/s Bravo Sponge Iron Pvt. Ltd. for manufacturing/storage/installation Sponge Iron (DRI) 200 TPD, Rolled product (TMT Bars) 600 TPD and power - 18 MW (AFBC-10 MW & WHRB-8 MW) at existing unit premises at Vill Mahuda, PO-Rukni, PS-Para, Dist-Purulia, West Bengal, this is to inform you that this Board hereby grants the Consent to Establish (NOC) from the environmental point of the above subject to the following conditions and special conditions annexed.

1. The quality of sewage and trade effluent to be discharged from your factory shall satisfy the permissible limits as prescribed in IS : 2490 (Pt. I) of 1974, and/or its subsequent amendment and Environment (Protection) Rules 1986.

2. Suitable measures to treat your effluent shall be adopted by you in order to reduce the pollutional load so that the quality of the effluent satisfies the standards mentioned above.

3. You shall have to apply to this Board for its consent to operate and discharge of sewage and trade effluent according to the provisions of the water (Prevention & Control of Pollution) Act, 1974. No sewage or trade effluent shall be discharged by you without prior consent of this Board.

4. All emission from your factory shall conform to the standards as laid down by this Board.

5. No. emission shall be permitted without prior approval of this Board and you shall apply to this Board for its consent to operate and atmospheric emission as per provision of the Air (Prevention & Control Pollution) act, 1981.

6. No industrial plant, furnace, flues, chimneys, control equipment, etc. shall be constructed/reconstructed/ erected/re-erected without prior approval of this Board

09/6/17

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

NOC NO:147027

7. You shall comply with
   (i) Water (Prevention and Control of Pollution) Cess Act, 1977, if applicable.
   (ii) Water (Prevention and Control of Pollution) Cess Act, 1978, if applicable.
   (iii) Environment (Protection) Act, 1986
   (iv) Environment (Protection) Rules, 1986
   (v) Hazardous Wastes (Management and Handling) Rules, 1989 and Amended Rules, 2000
   (vi) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Amended Rules, 2000
   (vii) Manufacture, Use, Import and Storage and Hazardous Micro-Organisms, Genetically Engineered Organisms or Cell Rules, 1989
   (viii) The Public Liability Insurance Act, 1991 and Amended Act, 1992
   (ix) The Public Liability Insurance Rules, 1991 and Amended Rules 1993
   (x) Biomedical Wastes (Management & Handling) Rules, 1998 and Amended Rules 2000 if applicable.
   (xi) Recycled Plastics Manufacture and Usage Rules 1999, if applicable and
   (xii) Ozone Depleting Substances (Regulation & Control) Rules, 2000, if applicable

8. You will have to abide by any other stipulations as may be prescribed by any authority/local bodies/Government Departments etc.

SPECIAL CONDITION :

See annexure.

G. C. I. Rs.1270399000/-

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

Yours faithfully,

09/6/18

Sr. Env. Engineer(EIM Cell)
Member Secretary,
West Bengal Pollution Control Board

264--2N-117/2007(E) dd. 09.06.2017.

Memo No. .....

Dated.....

Copy forwarded for information to :

1. Chief Inspector of Factories, Government of West Bengal, N. S. Building, Kolkata-700 001
2. Director of Industries/Director of Cottage & Small Scale Industries, Government of West Bengal, N. S. Building. Kolkata-700 001
3. Guard file, West Bengal Pollution Control Board.
4. Environmental Engineer, I/II/Alipur R.O./Howrah R.O./Hooghly R.O./B.R.O./D.R.O./Haldia R.O./S.R.O./ Asansol/ Sub-R.O./WBPC Board

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Delhi Road, Dankuni
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09/6/18

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Opposite Asansol Fire Station
G.T. Road, Asansol-713 301

Sr. Env. Engineer(EIM Cell)
Member Secretary.
West Bengal Pollution Control Board

Annexure to NOC Sl. No. **NO147027**

Special conditions issued to **M/s. Bravo Sponge Iron Pvt. Ltd. Vill – Mahuda, PO – Rukni, PS – Para, Dist – Purulia, West Bengal (Expansion Project)**

A) **Emission:-**

Sl. No	Emission sources	Air Pollution Control System	Stack (Nos. & height from GL in m.)
1.	Sponge Iron Plant		
	Rotary Kiln (2x100TPD)	4 MW capacity WHRB followed by three field individual ESP and stack for each individual 100 TPD rotary kiln	02 no. , 30 m
	Individual bag filters to be installed at cooler discharge, product house, intermediate bin, coal crushing section and other dust prone areas with individual stacks, each of height 30 meters.		
2.	Captive Power Plant -18 MW (8 MW from WHRB & 10 MW from AFBC boiler)		
	AFBC Boiler (1 x 10 MW)	Lime scrubber followed by 3 field ESP	45 m
	WHRB (2X4 MW, one each for individual 100 TPD rotary kilns)	ESP common with individual kiln	common with individual kiln
3.	2X18 T/heat Induction Furnaces	Individual assembly of spark arrestor and bag filter for each furnace followed by common stack	30 m
4.	2X12 T/heat Induction Furnaces	Individual assembly of spark arrestor and bag filter for each furnace followed by common stack	30 m
5.	Hot Rolling Mill of capacity 600 TPD	--	--

1) Stacks should have sampling port, platform and ladder as per the Emission Regulation Part–III of CPCB. Continuous stack monitoring facilities should be provided with sponge iron units, ferro-alloy plant & CPP.

2) The emission levels from all emission sources connected with Air Pollution Control devices should be kept below 50mg / Nm^3.

3) New Standards for sponge iron plant issued by MoEF vide G.S.R 414(E) dated 30th May,2008 shall be complied with.

4) The National Ambient Air Quality Emission Standards issued by MoEF vide G.S.R 826(E) dated 16th November, 2009 should be complied with.

5) As proposed the unit shall not operate DRI kilns without WHRB-ESP operation.

6) Dry fog system and water sprinklers to be installed to arrest fugitive emission.

B) **Effluent** :-

1) Process – Effluent from pwer plant to be treated suitably and utilized in-house for plantation.
2) Cooling water to be recycled.
3) Domestic - to be discharged through septic tank to soak-pit within the unit premises.

C) **Solid Waste** : -

1. Fly ash to be sold to cement manufacturing units.
2. Dolo-char to be used in AFBC.
3. Bottom ash and slag form induction furnace to be used for land filling and road making.
4.

09/4/18

Sr. Environmental Engineer
W.B Pollution Control Board
Dept. of Land & Water, Govt.

Annexure to NOC Sl. No. **NO147027**

Special conditions issued to **M/s. Bravo Sponge Iron Pvt. Ltd. Vill – Mahuda, PO – Rukni, PS – Para, Dist – Purulia, West Bengal (Expansion Project)**

A) Emission:-

Sl. No	Emission sources	Air Pollution Control System	Stack (Nos. & height from GL in m.)
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	Individual bag filters to be installed at cooler discharge, product house, intermediate bin, coal crushing section and other dust prone areas with individual stacks, each of height 30 meters.		
2.	Captive Power Plant -18 MW (8 MW from WHRB & 10 MW from AFBC boiler)		
	AFBC Boiler (1 x 10 MW)	Lime scrubber followed by 3 field ESP	45 m
	WHRB (2X4 MW, one each for individual 100 TPD rotary kilns)	ESP common with individual kiln	common with individual kiln
3.	2X18 T/heat Induction Furnaces	Individual assembly of spark arrestor and bag filter for each furnace followed by common stack	30 m
4.	2X12 T/heat Induction Furnaces	Individual assembly of spark arrestor and bag filter for each furnace followed by common stack	30 m
5.	Hot Rolling Mill of capacity 600 TPD	--	--

1) Stacks should have sampling port, platform and ladder as per the Emission Regulation Part–III of CPCB. Continuous stack monitoring facilities should be provided with sponge iron units, ferro-alloy plant & CPP.

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B) **Effluent** :-

1) Process – Effluent from pwer plant to be treated suitably and utilized in-house for plantation.
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C) **Solid Waste** : -

1. Fly ash to be sold to cement manufacturing units.
2. Dolo-char to be used in AFBC.
3. Bottom ash and slag form induction furnace to be used for land filling and road making.
4.

09/6/12

Sr. Environmental Engineer
W.B. Pollution Control Board
Regional Office, Asansol

Annexure – 4B

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 – WPBA/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 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 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.

West Bengal Pollution Control Board * Asansol Regional Office

For and on behalf of the State Board

23.12.2021

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

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

Table-I

Outlet No.	Nature of effluent	Parameters	Standard	Frequency of effluent sampling
01	Domestic	pH	Between : 5.5 to 9.0	Yearly
		Total Suspended Solids	Not to exceed : 100 mg/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.	

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 → 520.0 KL
  (Water used for gardening should be included in this category of use)
- 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.

23.12.202

(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 - Maluda, 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 faciliate identification.

13. The *Applicant* shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the *Standard* as given in Table-II below :

Table-II (see Annexure)

Stack No.	Stack height from G.I., (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-I										
S-2										
S-3										
S-4										
S-5										
S-6										
S-7										
S-8										
S-9										
S-10										

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

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 (2×500 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	5700 Ton/month	-	Brick/cement manufacturing & Low land filling.
APCD Dust	600 Ton/month	-	To be used in Pellet Plant
EF Slag	970 Ton/month	-	To be used in land filling & road making

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

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 - Maheda, P.O - Rekni, 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 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.

Additional Conditions

1. This Consent letter may be revoked at any time on the ground of valid public complaint regarding water, Air & on 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. J/11011/758/2009-IA II(I) dated 18/04/2012 must be complied with.

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

23.12.202

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 Ton/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

23.12.2021

Senior Environmental Engineer
West Bengal Pollution Control Board
Asansol Regional Office

...ution) Act, 1974 and Air

The State Board reserve the right to revoke, withdraw or ma...

consent letter ...

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(Prl)/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(Prl)/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 (Prl)/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).

Your's faithfully
06.05.2022
Senior Environmental Engineer
Asansol Regional Office.

"Expansion"

WEST BENGAL POLLUTION CONTROL BOARD

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

CO132107

Consent Letter Number : CO132107

Memo Number : 294-WPBA/Red(Pol)/cont(135)/04 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.

W.B. Pollution Control Board Operation & Execution Cell Seal

For and on behalf of the State Board

08/12/21

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

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

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	Iron Ore Pellet	8,50,000 MT/Year
02	Producer Gas.	48,000 Nm3/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.

Mandi 08/12/21

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

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

Continued.....

C0132107

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

Table-I

Outlet No.	Nature of effluent	Parameters	Standard	Frequency of effluent sampling
01	Domestic	pH	Between : 5.5 to 9.0	Yearly
		Total Suspended Solids	Not to exceed : 100 mg/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 :-

- Industrial cooling, spraying in mine pits and boiler feed water → ..... 745 .....KL
  (Water used for gardening should be included in this category of use)
- Domestic purpose → ..... 5 .....KL
- Processing whereby water gets polluted and the pollutants are easily biodegradable → ..... — .....KL
- 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.

08/12/21

(~~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. Bnavo 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 faciliate identification.

13. The *Applicant* shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the *Standard* as given in Table-II below :

Table-II

Stack No.	Stack height from GI., (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-I	50m	Pellet Plant (1X0.85MTPA) with Oyfield ESP			30	–				Half Yearly
S-2	42m	PCI Unit- (6500MT/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										

Hardi 08/12/21

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

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

Continued.....

CO132107

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			
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
Tar from PGP	297 MT/month	—	reused as fuel DRI/ 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 p.m.)	75
Night Time (09 p.m. to 06 a.m.)	70

18. The *Applicant* shall at all times maintain good house-keeping, proper working order, and operate efficiently for control of pollution from all sources so as not to cause nuisance to surrounding areas/inhabitants and to achieve compliance with the terms and conditions of the consent.

19. The *Applicant* shall bring about at least 33% of the available open land under the green coverage / plantation.

20. The *Applicant* shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the *Applicant* to maintain compliance with the terms and conditions of the consent. In absence of such an alternate electric power source, the *Applicant* shall stop, reduce or otherwise control production to abide by the terms and conditions of the Consent regarding pollution level.

21. The *Applicant* shall install a separate energy meter showing the consumption of energy for operation of pollution control devices.

22. The *Applicant* shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.

23. The *Applicant* shall provide drainage system for conveying industrial and domestic liquid waste. Storm-water drain shall be kept separate from the drainage system meant for industrial and domestic liquid waste

Hardi 08/12/21

(~~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 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.

08/12/21

(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 – **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(I) dated 05.11.2020 and NOC(NO164516) issued vide memo no.349-2N-117/2007 (E)-Pt dated 10.11.2020 in favour of the expansion project.
2. The unit should comply all the conditions issued in earlier Consent to Operate.
3. The unit should obtain all the statutory licenses as applicable from other concerned Govt. Department.
4. The unit shall maintain the stringent stack emission standard –PM 30 mg/Nm3.
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 Nm^3/hr).

Mardi 08/12/21

Sr. Environmental Engineer
West Bengal Pollution Control Board

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

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(Pt1)/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. Bnava 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

Rosila 22/12/2022

(~~Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asstt. Env. Engr.~~)

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

ANNEXURE

Consent to M/s. Bnavo 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 Pellet	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.

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

Continued.....

CO141013

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

Table-I

Outlet No.	Nature of effluent	Parameters	Standard	Frequency of effluent sampling
01	Domestic	pH	Between : 5.5 to 9.0	Yearly
		Total Suspended Solids	Not to exceed : 100 mg/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.	

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 → 882.0 KL
  (Water used for gardening should be included in this category of use)
- Domestic purpose → 10.0 KL
- Processing whereby water gets polluted and the pollutants are easily biodegradable → — KL
- 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.

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

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 faciliate identification.

13. The *Applicant* shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the *Standard* as given in Table-II below : See Annexure-I

Table-II

Stack No.	Stack height from 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-I									
S-2									
S-3									
S-4									
S-5									
S-6									
S-7									
S-8									
S-9									
S-10									

R Sinha 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

Continued.....

CO141013

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

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
Dolochar	2100 Metric Tonnes/Month	—	Used in CPP
Fly Ash ~~APCD Dust~~	1155 Metric Tonnes/Month 1050 Metric Tonnes/Month	— Brick/Cement manufacturing units and abandoned mines & low land filling — 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 ~~09~~ 10 p.m.)	65
Night Time (~~09~~ 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

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

Continued.....

Consent to M/s. Bnava 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

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

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

Annexure – I

Annexure to Consent Letter Number – CO141013

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

Stack No.	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 (% v/v)			
1	72.0 m	DRI Kiln of capacity 350TPD- 1(one) no. with WHRB-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

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 (% v/v)			
6	50.0 m	01x0.85 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

Environmental Engineer 22/12/2022
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.

Received 22/12/2022

Environmental Engineer
West Bengal Pollution Control Board

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

Annexure - 5

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	:	24.02.2023 – 25.02.2023
					Period of Analysis	:	25.02.2023 – 27.02.2023
					Date of Issue	:	28.02.2023
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/64/Feb./A/VII	Report No.	:	ENV/64/Feb./TR(A)/VII/22-23

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 (^{0}C)	:	24.0
2.	Average Relative Humidity (%)	:	54.0
3.	Barometric Pressure (mm of Hg)	:	758.0
4.	Smell or Odour	:	No Remarkable Smell
5.	Weather Condition	:	Clear

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of $PM_{2.5}$	$\mu g/m^3$	IS 5182 (Part 24) : 2019	49.50
2.	Concentration of PM_{10}	$\mu g/m^3$	IS 5182 (PART 23) : 2019	72.0
3.	Concentration of SO_2	$\mu g/m^3$	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	16.50
4.	Concentration of NO_2	$\mu g/m^3$	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	32.80
5.	Concentration of CO	mg/m^3	IS 5182 (Part 10) : 2019	0.62
6.	Concentration of Pb	$\mu g/m^3$	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_6H_6)	$\mu g/m^3$	IS 5182 (Part 11) 2017 & ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74
9.	Ozone (O_3)	$\mu g/m^3$	IS 5182 (Part-9) : 2019	<10.0
10.	Ammonia (NH_3)	$\mu g/m^3$	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 23rd Ed 3114C : 2017	<0.01

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

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	:	24.02.2023 – 25.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/VIII	Report No.	:	ENV/64/Feb./TR(A)/VIII/22-23	

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Main Gate (Western Side)
2.	Duration of Sampling	:	24 hrs. (09:30 a.m. – 09:30 a.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	23.0
2.	Average Relative Humidity (%)	:	66.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	46.20
2.	Concentration of PM_{10}	µg/m^3	IS 5182 (PART 23) : 2019	78.20
3.	Concentration of SO_2	µg/m^3	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	12.80
4.	Concentration of NO_2	µg/m^3	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	30.0
5.	Concentration of CO	mg/m^3	IS 5182 (Part 10) : 2019	0.32
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_6H_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	<10.0
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 23rd Ed 3114C : 2017	<0.01

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

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	:	24.02.2023 – 25.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/IX	Report No.	:	ENV/64/Feb./TR(A)/IX/22-23	

A] GENERAL INFORMATION

1.	Location of Sampling	:	Mohuda Village (0.5 km. from Plant) (Southern Side)
2.	Duration of Sampling	:	24 hrs. (10:00 a.m. – 10:00 a.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	22.0
2.	Average Relative Humidity (%)	:	62.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	43.20
2.	Concentration of PM_{10}	µg/m^3	IS 5182 (PART 23) : 2019	68.50
3.	Concentration of SO_2	µg/m^3	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	8.20
4.	Concentration of NO_2	µg/m^3	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	26.50
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_6H_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	<10.0
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 23rd Ed 3114C : 2017	<0.01

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

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	:	24.02.2023 – 25.02.2023
					Period of Analysis	:	25.02.2023 – 27.02.2023
					Date of Issue	:	28.02.2023
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/64/Feb./A/X	Report No.	: ENV/64/Feb./TR(A)/X/22-23

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Administrative Building (Eastern Side)
2.	Duration of Sampling	:	24 hrs. (10:30 a.m. – 10:30 a.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	22.0
2.	Average Relative Humidity (%)	:	68.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	45.80
2.	Concentration of PM_{10}	µg/m^3	IS 5182 (PART 23) : 2019	73.20
3.	Concentration of SO_2	µg/m^3	IS 5182 (Part 2) 2017 & ASTM D 2914-01, Sec. 11 (Vol. 11.07) : 2017	1.50
4.	Concentration of NO_2	µg/m^3	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	36.0
5.	Concentration of CO	mg/m^3	IS 5182 (Part 10) : 2019	0.26
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_6H_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	<10.0
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 23rd Ed 3114C : 2017	<0.01

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

Annexure - 6

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	:	24.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/XI	Report No.	:	ENV/64/Feb./TR(A)/XI/22-23	

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Raw Materials Stock Yard
2.	Duration of Sampling	:	08 hrs. (09:50 a.m. – 05:50 p.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	24.0
2.	Average Relative Humidity (%)	:	70.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	286.12

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

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	:	24.02.2023	
					Period of Analysis	:	25.02.2023 – 27.02.2023	
					Date of Issue	:	28.02.2023	
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/64/Feb./A/XI	Report No.	:	ENV/64/Feb./TR(A)/XI/22-23	

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Raw Materials Stock Yard
2.	Duration of Sampling	:	08 hrs. (09:50 a.m. – 05:50 p.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	24.0
2.	Average Relative Humidity (%)	:	70.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	9.20
2.	Concentration of NO_2	µg/m^3	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	28.16

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

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	:	24.02.2023	
					Period of Analysis	:	25.02.2023 – 27.02.2023	
					Date of Issue	:	28.02.2023	
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/64/Feb./A/XII	Report No.	:	ENV/64/Feb./TR(A)/XII/22-23

A] GENERAL INFORMATION

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

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	26.0
2.	Average Relative Humidity (%)	:	74.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	392.50

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

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	:	24.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/XII	Report No.	:	ENV/64/Feb./TR(A)/XII/22-23	

A] GENERAL INFORMATION

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

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	26.0
2.	Average Relative Humidity (%)	:	74.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	16.28
2.	Concentration of NO_2	µg/m^3	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	36.50

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

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	:	24.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/XIII	Report No.	:	ENV/64/Feb./TR(A)/XIII/22-23	

A] GENERAL INFORMATION

1.	Location of Sampling	:	Inbetween DRI (1 & 2) & DRI (3 & 4)
2.	Duration of Sampling	:	08 hrs. (10:25 a.m. – 06:25 p.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	25.5
2.	Average Relative Humidity (%)	:	72.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	362.54

Remarks :

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

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	:	24.02.2023	
				Period of Analysis	:	25.02.2023 – 27.02.2023	
				Date of Issue	:	28.02.2023	
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/64/Feb./A/XIII	Report No.	:	ENV/64/Feb./TR(A)/XIII/22-23	

A] GENERAL INFORMATION

1.	Location of Sampling	:	Inbetween DRI (1 & 2) & DRI (3 & 4)
2.	Duration of Sampling	:	08 hrs. (10:25 a.m. – 06:25 p.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (^{0}C)	:	25.5
2.	Average Relative Humidity (%)	:	72.0
3.	Barometric Pressure (mm of Hg)	:	758.0
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	8.20
2.	Concentration of NO_2	µg/m^3	IS 5182 (Part 6) 2017 & ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	28.52

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

<End of Report>

Annexure - 7

FORMAT NO. ENV/FM/40

TEST REPORT

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.				Type of Industry	:	Steel & Power Unit	
Address	:	Vill. – Mahuda, P.O. – Rukni, P.S. – Para, Purulia – 723145				Sampling Date	:	25.02.2023	
						Period of Analysis	:	27.02.2023 – 04.03.2023	
						Date of Issue	:	06.03.2023	
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 Inlet	Sample Condition	:	Sealed	Sample ID No.	:	ENV/1002/Feb./W/M/I	
Report No.	:	ENV/1002/Feb./TR(W)/M/I/22 – 23							

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	4500H$^+$B APHA 23rd Edition, 2017	-	6.20
2.	Total Suspended Solids	2540 D APHA 23rd Edition, 2017	mg/l	110.0
3.	Oil & Grease	5520 B/D APHA 23rd Edition, 2017	mg/l	8.0
4.	Chemical Oxygen Demand	5200 B/C/D APHA 23rd Edition, 2017	mg/l	350.0
5.	Biochemical Oxygen Demand for 5 days at 20^{0}C	5210 B APHA 23rd Edition, 2017	mg/l	<2.0

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 :

Dr. AJOY PAUL
Quality Manager

FORMAT NO. ENV/FM/40

TEST REPORT

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.			Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mahuda, P.O. – Rukni, P.S. – Para, Purulia – 723145			Sampling Date	:	25.02.2023
					Period of Analysis	:	27.02.2023 – 04.03.2023
					Date of Issue	:	06.03.2023
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/1002/Feb./W/M/II
Report No.	:	ENV/1002/Feb./TR(W)/M/II/22 – 23					

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	4500H+B APHA 23rd Edition, 2017	-	7.20
2.	Total Suspended Solids	2540 D APHA 23rd Edition, 2017	mg/l	30.0
3.	Oil & Grease	5520 B/D APHA 23rd Edition, 2017	mg/l	2.0
4.	Chemical Oxygen Demand	5200 B/C/D APHA 23rd Edition, 2017	mg/l	120
5.	Biochemical Oxygen Demand for 5 days at 20^0C	5210 B APHA 23rd Edition, 2017	mg/l	<2.0

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 :

Dr. AJOY PAUL
Quality Manager

<End of Report>

Annexure - 8

FORMAT NO. ENV/FM/55

TEST REPORT

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.		Type of Industry	:	Steel & Power Unit	
Address	:	Vill. – Mahuda, P.O. – Rukni, P.S. – Para, Purulia – 723145		Sampling Date	:	25.02.2023	
				Period of Analysis	:	27.02.2023 – 06.03.2023	
				Date of Issue	:	08.03.2023	
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	: Ground Water
Location	:	Mohuda Village Tubewell	Sample Condition	:	Sealed	Sample ID No.	: ENV/1002B/Feb./W/M
Report No.	:	ENV/1002B/Feb./TR(W)/M/22-23					

	PARAMETERS	METHOD	UNIT	RESULTS
1.	Colour	APHA 23rd Ed., 3111 B : 2017	Hazen	1.0
2.	Odour	APHA 23rd Ed., 2150 B : 2017	--	Odourless
3.	pH	APHA 23rd Ed., 4500 – H^+B : 2017	--	6.80
4.	Taste	APHA 23rd Ed., 2160 B : 2017	--	Acceptable
5.	Turbidity	APHA 23rd Ed., 2130 B : 2047	NTU	1.20
6.	Total Dissolved Solids	APHA 23rd Ed., 2540 B : 2017	mg./l	450.0
7.	Calcium	APHA 23rd Ed., 3500 Ca-B : 2017	mg./l	81.4
8.	Chloride	APHA 23rd Ed., 4500 Cl-B/D : 2017	mg./l	77.8
9.	Iron	APHA 23rd Ed., 3111 B : 2017	mg./l	0.72
10.	Magnesium	APHA 23rd Ed., 3500 Mg-B : 2017	mg./l	18.1
11.	Nitrate	APHA 23rd Ed., NO_3-E : 2017	mg./l	4.2
12.	Sulphate	APHA 23rd Ed., 4500 SO_4-E : 2017	mg./l	67.4
13.	Total Alkalinity	APHA 23rd Ed., 2320 B : 2017	mg./l	180.0
14.	Total Hardness	APHA 23rd Ed., 2340 C : 2017	mg./l	160.0
15.	Arsenic	IS 3025 (Part 37) : 1988 : 2014	mg./l	<0.01
16.	Chromium	APHA 23rd Ed., 3111 Cr-B : 2017	mg./l	<0.02
17.	Boron	APHA 23rd Ed., 4500 B-C : 2017	mg./l	<0.1

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

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By :

Indrani Bhattacharya

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. – Mahuda, P.O. – Rukni, P.S. – Para, Purulia – 723145		Sampling Date	:	25.02.2023	
				Period of Analysis	:	27.02.2023 – 28.02.2023	
				Date of Issue	:	08.03.2023	
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	: Ground Water
Location	:	Mohuda Village Tubewell	Sample Condition	:	Sealed	Sample ID No.	: ENV/1002B/Feb./W/M
Report No.	:	ENV/1002B/Feb./TR(W)/M/22-23					

	PARAMETERS	METHOD	UNIT	RESULTS
1.	Total Coliform	9222 B, APHA 23rd., 2017	CFU/100 ml.	<1.0
2.	E. Coli	9222 I, APHA 23rd Ed., 2017	CFU/100 ml.	<1.0

Remarks : a) CFU indicates Colony Forming Unit.
b) <1.0 indicates "Absent" No Colony Developed i.e. No Coliform Found.
c) Sample collected by Envirocheck and sent to lab for testing in sealed condition.
d) Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By :

PRIYANKA MUKHERJEE
Technical Manager, Microbiology

<End of Report>

Annexure - 9

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
Certificate No. TC-6014

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/426/M/(TR)N/I/2022-2023

Sampling Locations :	Near Security Gate – Western Side	Date of Study :	24/02/2023
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	61.9	64.6	63.46	
7:00 AM to 8:00 AM	62.3	65.2	63.99	
8:00 AM to 9:00 AM	63.7	68.1	66.43	
9:00 AM to 10:00 AM	64.5	69.6	67.98	
10:00 AM to 11:00 AM	60.2	64.8	63.89	
11:00 AM to 12:00 PM	65.6	68.4	66.91	
12:00 PM to 1:00 PM	63.1	68.2	66.15	
1:00 PM to 2:00 PM	60.2	66.6	63.67	65.71
2:00 PM to 3:00 PM	60.4	63.7	62.78	
3:00 PM to 4:00 PM	62.3	64.5	63.90	
4:00 PM to 5:00 PM	63.4	66.1	64.89	
5:00 PM to 6:00 PM	65.9	69.2	67.12	
6:00 PM to 7:00 PM	67.2	72.5	70.10	
7:00 PM to 8:00 PM	60.2	68.5	66.81	
8:00 PM to 9:00 PM	61.3	64.6	63.15	
9:00 PM to 10:00 PM	60.2	62.8	58.09	

Date of Study :	24/02/2023 to 25/02/2023	Night time :	10 PM to 6 AM

Time(hrs.)	L_{min}	L_{max}	L_{eq}	Night time L_{eq}
10:00 PM to 11:00 PM	59.4	61.9	60.83	
11:00 PM to 12:00 AM	58.7	60.2	59.51	
12:00 AM to 1:00 AM	56.2	59.4	58.09	
1:00 AM to 2:00 AM	55.1	58.6	56.86	59.31
2:00 AM to 3:00 AM	50.3	59.1	56.63	
3:00 AM to 4:00 AM	54.9	60.6	58.62	
4:00 AM to 5:00 AM	56.1	61.6	59.67	
5:00 AM to 6:00 AM	57.4	63.8	61.69	

L_{min} : Minimum Noise level L_{max} :Maximum Noise level L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 28.02.2023

ENVIROCHECK Kolkata 700 028 189, Rashtraguru Avenue

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

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/211/M/(TR)N/II/2022-2023

Sampling Locations :	Mohuda Village (0.5 KM from Plant) – Southern Side	Date of Study :	24/02/2023
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	46.4	50.8	49.13	
7:00 AM to 8:00 AM	47.1	51.6	49.91	
8:00 AM to 9:00 AM	48.2	52.8	51.08	
9:00 AM to 10:00 AM	49.7	51.6	50.75	
10:00 AM to 11:00 AM	50.6	53.7	52.42	
11:00 AM to 12:00 PM	53.8	55.9	54.98	
12:00 PM to 1:00 PM	52.3	54.7	53.66	
1:00 PM to 2:00 PM	51.6	54.8	53.49	51.89
2:00 PM to 3:00 PM	53.8	55.1	54.50	
3:00 PM to 4:00 PM	52.9	54.3	53.66	
4:00 PM to 5:00 PM	49.2	53.0	51.50	
5:00 PM to 6:00 PM	48.6	52.9	51.26	
6:00 PM to 7:00 PM	47.4	51.4	49.85	
7:00 PM to 8:00 PM	46.2	50.8	49.08	
8:00 PM to 9:00 PM	45.9	50.2	48.56	
9:00 PM to 10:00 PM	44.7	49.6	47.81	

Date of Study :	24/02/2023 to 25/02/2023	Night time :	10 PM to 6 AM

Time(hrs.)	L_{min}	L_{max}	L_{eq}	Night time L_{eq}
10:00 PM to 11:00 PM	43.8	45.9	44.98	
11:00 PM to 12:00 AM	42.6	44.9	43.90	
12:00 AM to 1:00 AM	42.5	47.6	45.76	
1:00 AM to 2:00 AM	41.8	45.8	44.25	44.39
2:00 AM to 3:00 AM	40.7	43.2	42.13	
3:00 AM to 4:00 AM	41.5	44.7	43.39	
4:00 AM to 5:00 AM	42.6	45.9	44.56	
5:00 AM to 6:00 AM	43.7	46.2	45.13	

L_{min} : Minimum Noise level L_{max} :Maximum Noise level L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 28.02.2023

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

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/211/M/(TR)N/III/2022-2023

Sampling Locations :	Near Railway Siding Area – Northern Side	Date of Study :	24/02/2023
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	55.3	59.4	57.82	
7:00 AM to 8:00 AM	56.2	60.4	58.79	
8:00 AM to 9:00 AM	58.9	61.5	60.39	
9:00 AM to 10:00 AM	60.2	62.7	61.63	
10:00 AM to 11:00 AM	61.5	64.9	63.52	
11:00 AM to 12:00 PM	50.1	62.8	53.89	
12:00 PM to 1:00 PM	60.3	64.3	62.35	
1:00 PM to 2:00 PM	61.8	64.7	63.45	62.50
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	59.9	63.8	62.27	
9:00 PM to 10:00 PM	58.2	61.4	60.09	

Date of Study :	24/02/2023 to 25/02/2023	Night time :	10 PM to 6 AM

Time(hrs.)	L_{min}	L_{max}	L_{eq}	Night time L_{eq}
10:00 PM to 11:00 PM	53.2	57.5	55.86	
11:00 PM to 12:00 AM	52.9	56.4	54.99	
12:00 AM to 1:00 AM	53.4	55.9	54.83	
1:00 AM to 2:00 AM	45.5	49.6	48.02	53.47
2:00 AM to 3:00 AM	43.4	46.2	51.15	
3:00 AM to 4:00 AM	44.6	47.4	46.22	
4:00 AM to 5:00 AM	45.9	49.2	47.86	
5:00 AM to 6:00 AM	53.9	58.5	56.78	

L_{min} : Minimum Noise level L_{max} :Maximum Noise level L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 28.02.2023

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

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/211/M/(TR)N/IV/2022-2023

Sampling Locations :	Near Main Administrative Building – Eastern Side	Date of Study :	24/02/2023
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	52.8	56.4	54.96	
7:00 AM to 8:00 AM	53.4	57.8	56.13	
8:00 AM to 9:00 AM	54.7	59.4	57.66	
9:00 AM to 10:00 AM	55.9	60.5	58.78	
10:00 AM to 11:00 AM	60.5	64.6	63.02	
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	63.84
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	67.2	63.78	
8:00 PM to 9:00 PM	60.2	62.8	61.65	
9:00 PM to 10:00 PM	59.4	61.3	60.45	

Date of Study :	24/02/2023 to 25/02/2023	Night time :	10 PM to 6 AM

Time(hrs.)	L_{min}	L_{max}	L_{eq}	Night time L_{eq}
10:00 PM to 11:00 PM	59.9	62.8	61.59	
11:00 PM to 12:00 AM	58.6	60.1	59.41	
12:00 AM to 1:00 AM	57.4	62.3	60.51	
1:00 AM to 2:00 AM	53.6	60.1	58.31	59.64
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	59.9	60.2	60.15	
5:00 AM to 6:00 AM	61.4	62.8	62.16	

L_{min} : Minimum Noise level

L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 28.02.2023

ENVIROCHECK Kolkata 700 028 189, Rashtraguru Avenue

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

Annexure - 10

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/426/M/(TR)N/I/22-23
8.	Date of Study	:	24/02/2023
9.	Reporting Date	:	27/02/2023
10.	Method No.	:	IS 15575 (Part 2), 2022
11.	Time of Duration of Noise	:	20 Minutes
12.	Height from Ground Level	:	4 feet
13.	Sample Monitoring by		Mr. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY — **Time :10:00 – 10:20A.M**

DAY TIME

1. Location : Coal Shed Area (RM Handling Section)

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	61.4	67.5	65.44	East Side
02.	dB(A)	60.2	63.8	62.36	West Side
03.	dB(A)	62.3	68.5	66.42	North Side
04.	dB(A)	63.0	70.2	67.95	South Side
			Average dB(A) Leq	65.54	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<

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/426/M/(TR)N/II/22-23
8.	Date of Study	:	24/02/2023
9.	Reporting Date	:	27/02/2023
10.	Method No.	:	IS 15575 (Part 2), 2022
11.	Time of Duration of Noise	:	20 Minutes
12.	Height from Ground Level	:	4 feet
13.	Sample Monitoring by		Mr. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY — **Time :10:30 – 10:50 A.M**

DAY TIME

2. Location : In-between Rotary Kiln – 1,2 & 3,4 (DRI)

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	66.4	70.8	69.13	East Side
02.	dB(A)	71.2	72.6	71.96	West Side
03.	dB(A)	70.4	72.8	71.76	North Side
04.	dB(A)	71.2	73.5	72.50	South Side
			Average dB(A) Leq	71.33	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<

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/426/M/(TR)N/III/22-23
8.	Date of Study	:	24/02/2023
9.	Reporting Date	:	27/02/2023
10.	Method No.	:	IS 15575 (Part 2), 2022
11.	Time of Duration of Noise	:	20 Minutes
12.	Height from Ground Level	:	4 feet
13.	Sample Monitoring by		Mr. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY — **Time :11:00 – 11:20 A.M**

DAY TIME

3. Location : Near Induction Furnace Area (SMS)

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	64.2	71.9	69.57	East Side
02.	dB(A)	63.9	72.6	70.14	West Side
03.	dB(A)	67.8	71.4	69.96	North Side
04.	dB(A)	66.5	70.3	68.80	South Side
			Average dB(A) Leq	69.61	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<

Annexure - 11

Drishti Fire Bricks

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

MANUFACTURERS OF HIGH QUALITY REFRACTORIES

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

Ref. No...01/16-17/BRAVO

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 **Innanpur, P.O.- Digha, P.S.-Neturia, Purulia-723121** (with expression shall unless excluded by or repugnant to the subject or context be deemed to mean and include its successor or successors and permitted assigns) of the **OTHER Part**.

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

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

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

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

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

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

Signed and Delivered by the above

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

DRISHTI FIRE BRICKS
Proprietor

Signed and Delivered by the above

Name: Deepak Kr. Agarwal
Degn: Director
M/S. Bravo Sponge Iron Pvt. Ltd.

पश्चिमबङ्গ 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.
18/9/18
Authorized Signatory
1.....

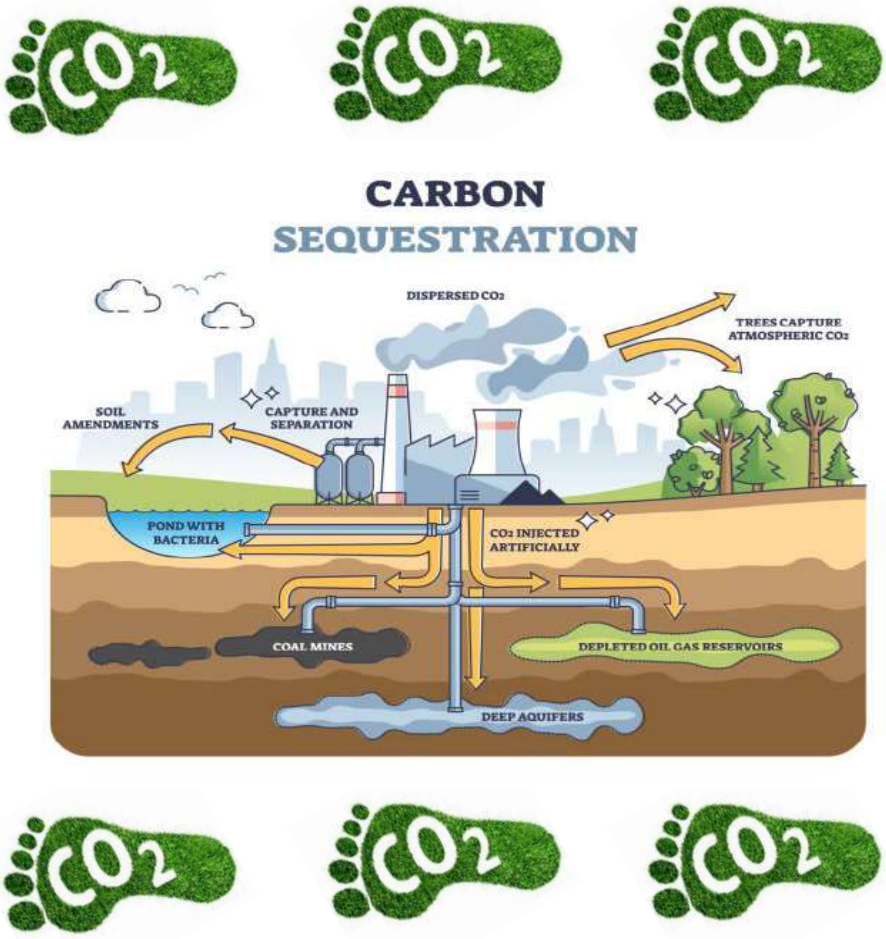
PURCHASER
DIAMOND FLY ASH BRICKS
18/9/2018
Proprietor
2.....

Annexure - 12


Feel Free to Plant
a Tree

Annexure - 13

Bravo Sponge Iron Pvt. Ltd.



GHG STUDY (CARBON FOOTPRINT)

Located at

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

Introduction

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

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

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

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

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

Carbon Footprint

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

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

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

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

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

* ***Emission Factor based on 2006 IPCC Guidelines for National Greenhouse Gas Inventories***

2. ***Induction Furnace***

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

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

3. Pellet Plant

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

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

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

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

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

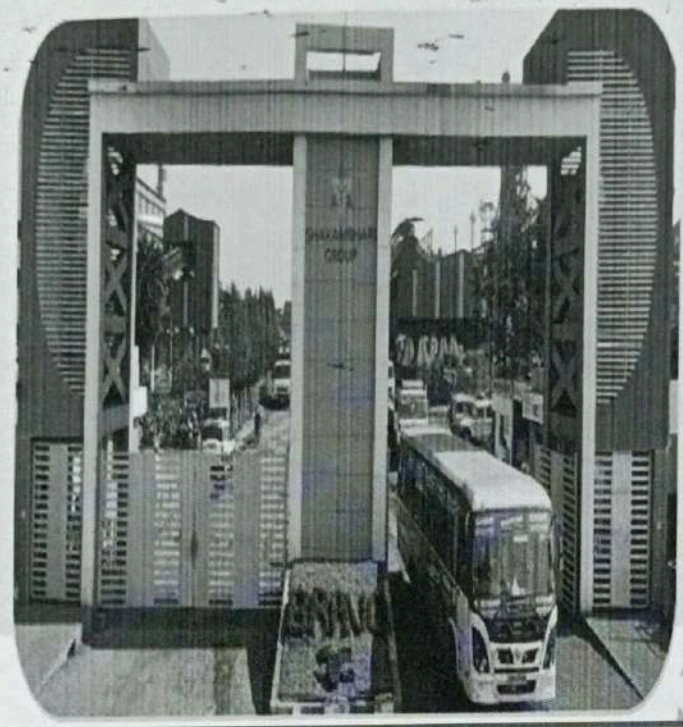
Required Fuel	Quantity TPA	Carbon Content (W/W)	Combustion Rate	CO2e Emissions of the plant (TPA)
Coal	22,177.50	0.67	95%	51,805
Dolochar	26,552.00	0.25	95%	23,143
Total CO2e Emissions of the plant (T/Year)				74,948

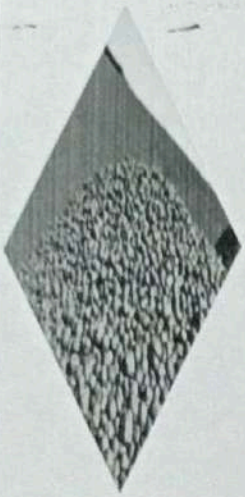
Thus, the cumulative CO2e emitted from the existing project is **119,949 *tons CO2e/Annum.***

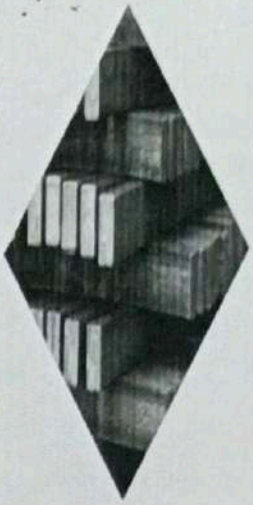
(Reference Point: Source: Report on Greenhouse Gas Emissions from Major Industrial Sources –III Iron and Steel Production by International Energy Agency and USEPA; Technical Support Document for the Ferroalloy Production Sector: Proposed Rule for Mandatory Reporting of Greenhouse Gases;)

Annexure - 14

BRAVO SPONGE IRON PVT LTD







RISK AND DISASTER MANAGEMENT PLAN

BRAVO SPONGE IRON PVT. LTD

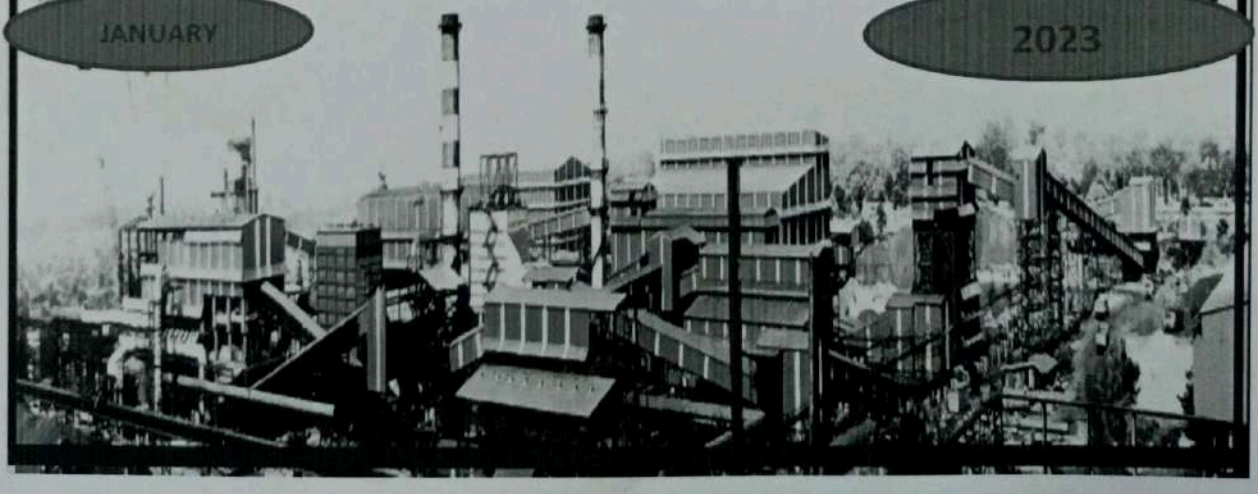
VILL: MAHUDA, PO: RUKNI, PS: PARA

DIST: PURULIA, PIN CODE:723145

WEST BENGAL

JANUARY

2023



SHAKAMBHARI GROUP

M/s Bravo Sponge Iron Pvt. Limited,

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

Risk and Disaster Management Plan

SHAKAMBHARI GROUP

Bravo Sponge Iron Ltd.

Md Kalam

Duly Signed by Manager-Safety

M/s Bravo Sponge Iron Pvt. Limited,

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

Risk and Disaster Management Plan

Introduction:

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

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

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

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

GENERAL INFORMATION ABOUT THE FACTORY:

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

Presently, the company is having following facilities in operation:

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

Following projects are under implementation:

- 1 x 0.8 MTPA Pellet Plant
- 1 x 350 TPD DRI Kiln with WHRB
- 6 x 4000 Nm^3 Producer Gas Plant
- 13.9 MW Capacity power plant

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

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

Bravo Sponge Iron Pvt. Ltd.

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Risk and Disaster Management Plan

SHAKAMBHARI GROUP

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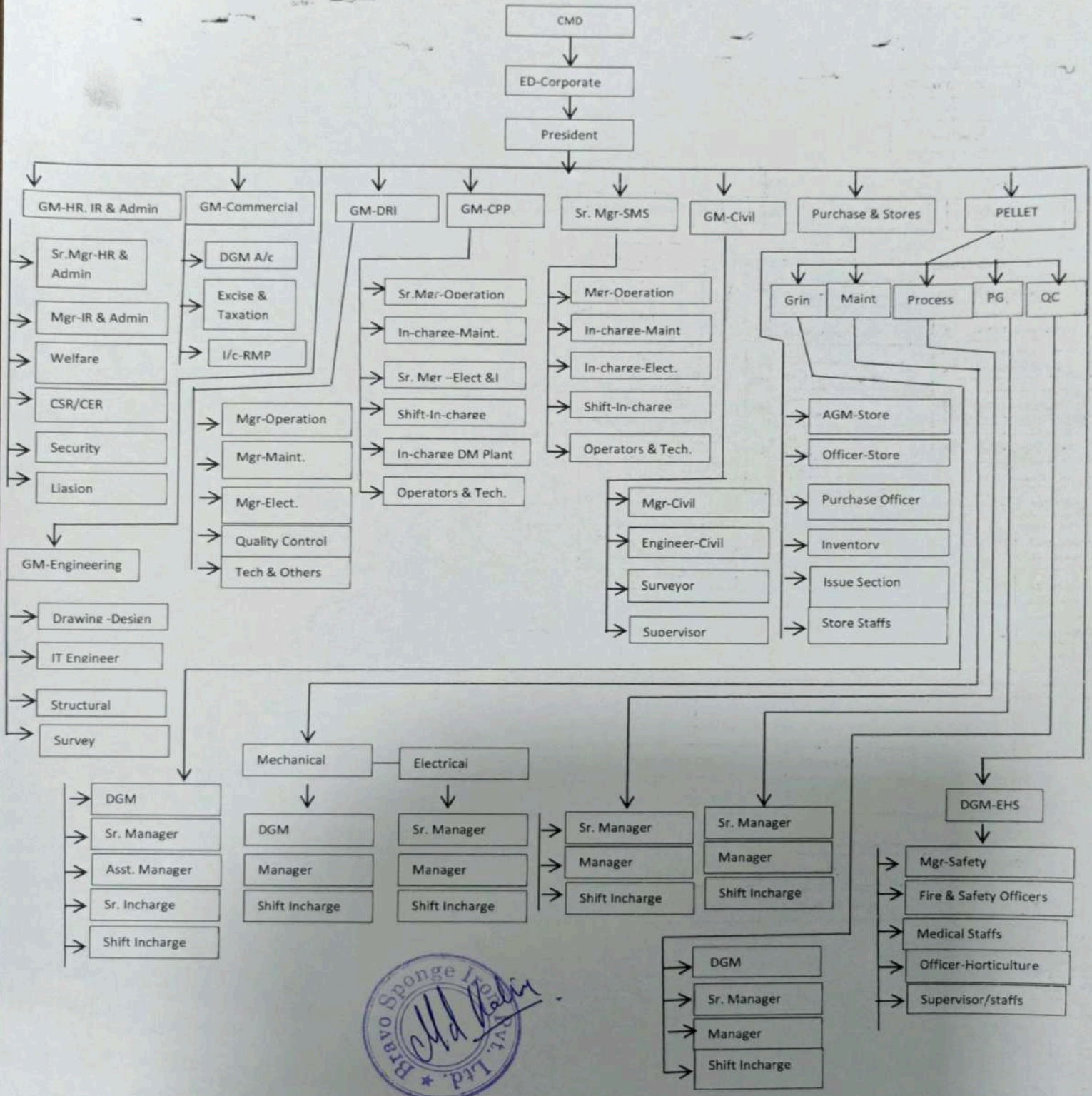
Organizational Structure:



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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	184
2.	B	14:00-22:00 Hrs	305
3.	C	22:00-06:00 Hrs	244
4.	G	09:00-18:00 Hrs (Lunch Break: 13:00-14:00 Hrs)	312
		Total	1045

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

Nature of Hazards in BSIPL

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

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

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PROCESS DESCRIPTION (In Brief)

➢ DRI

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

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

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- **Pellet Plant:**

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

- **INVENTORY OF RAW MATERIALS**

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

MAXIMUM STORAGE OF CAPACITY OF RAW MATERIALS

SL. 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	Diesel	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

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➢ INVENTORY OF HAZARDOUS SUBSTANCES.

The inventory of Hazardous materials is mentioned below:

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

ONSITE EMERGENCY PLAN

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

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

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

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

Emergency Action Plan:

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

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

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

HAZARD IDENTIFICATION AND DETAILS OF PROPOSED SAFETY SYSTEMS

Identification of Hazards

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

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

ANTICIPATED HAZARD SCENARIO:

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

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

IDENTIFICATION OF MOST CREDIBLE HAZARD SCENARIOS

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

Flash point of HSD is 66^{0}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.

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.

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.

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

RESCUE TEAM LEADER

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

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

AUXILIARY TEAM LEADER

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

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

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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 Leade (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 th 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.
- Auxiliary Team Leader (ATL) shall take charge of Emergency Control Room (ECR), shall ensure smooth operation of ECR and shall inform relatives of casualties. Informs mutual Aid partners and ensures their arrival at site if required.
- Auxiliary Team Leader (ATL) informs statutory authorities and district administration regarding emergency suitably and coordinates their visit at site.
- Works main controller (WMC) coordinates and keeps the track of all the activities at site and off the site and arranges the recording of the activities in a chronological manner for review of the Onsite emergency Plan.

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.

Bravo Sponge Iron Pvt. Ltd.

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

FACILITIES AVAILABLE

Fire Hydrant System

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

Fire Extinguishers

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

Fire Buckets

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

Siren

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

Communication

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

Occupational Health Center

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

First Aid Box

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

The first aid boxes are provided in the following locations:

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

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

Bravo Sponge Iron Pvt.

DISASTER MANAGENENT PLAN

Introduction:

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

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

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

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

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

Objectives of Disaster Management Plan (DMP):

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

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

Bravo Sponge Iron Pvt. Ltd.

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.

Bravo Sponge Iron Pvt. Ltd.

EMERGENCY COMMAND STRUCTURE

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

⇩

Site Incident Controller (SIC)
Mr. T. K. Chakraborty(GM-CPP)
Mr. R. R. Pathak (GM-SID)
Mr. Sumanta Nandi (Sr. Manager-SMS)
Mr. Mahesh Rana (DGM-Pellet plant)

⇩

Auxiliary Team Leader (ATL)	Combat Team Leader (CTL)	Rescue Team Leader (RTL)
1. Mr. Deepak Shaw (HR, IR & Admin)	1. Mr. R K Sarangi (DGM-Pellet plant)	1. Mr. Arvind Rai Security Head
2. Mr. R. K. Mishra (DGM-EHS)	2. Mr. Harendra Singh (Sr. Manager-CPP)	2. Mr. Rajiv Mukherjee Utility & Electrical Head
3. Mr. Srikant Mandal (HR & IR)	3. Mr. Sanjay Pandit (Manager SMS/ CCM)	3. Mr. Mohammad Kalim Manager-Safety
	4. Mr. Baljeet Singh (Manager-RMP)	4 Mr. Debasish Tewary (Admin & IR)

Members	Members	Members
1. Mr. K. N. Singh (DGM-Accounts)	1. Mr.Somitro Shee Mgr-Electrical (CPP)	1. Mr. K.J Lawrence AGM Stores
2. Mr. Debasish Tewary (Admin & IR)	2. Mr. Uppendra Singh Sr. Mgr -Mechanical (DRI)	2. Mr. C S Paswan Sr. Safety Officer
3. Mr. Sandeep paul (HR)	3. Mr. Abani Mahata Sr. Safety Officer	3. Mr. Bishambar Dubey Security Officer
4. Arpan Pal (Admin)	4. Mr. P S Dubey Sr. Security Officer	4.Mr. Rajesh Mondal Medical attendant
5. Subhasis Pradhan (Esic)	5...Mr. Mahadev Samanta Sr. Technician (Utility)	5. .Mr. Rahul Kumar Security Officer
6. Mr. Binoy Lodha Officer (Automobile)		

Bravo Sponge Iron Pvt. Ltd.

TELEPHONE NUMBERS OF EMERGENCY COMMAND TEAM

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

EMERGENCY CONTACT NUMBERS:

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

Bravo Sponge Iron Pvt. Ltd.

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

psi
SINCE 1997
PIONEER SAFETY INDUSTRIES

PIONEER SAFETY INDUSTRIES

85, Bentinck Street, 5th Floor, Room No. : 9, Kolkata 700 001.
Mobile : 9433120475
E-mail :pioneersafetyindustries@gmail.com/subhrodaspioneer@rediffmail.com

Acknowledgement

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

PIONEER SAFETY INDUSTRIES

PIONEER SAFETY INDUSTRIES ★ Kolkata

INTRODUCTION :

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

STANDARDS :

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

SCOPE OF WORK :

Heat Stress.

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.

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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.

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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			
SMS FURNACE NO B1	Heat Stress	02.12.2022	4	^0C	25.2 25.6 25.8 26.4	25.8	31 °C	Globe and Wet Bulb thermometer	06	02	Below TLV		UTTAM MEIYA JOYDIP DEY
SMS FURNACE NO B2	Heat Stress	02.12.2022	4	^0C	26.3 26.5 27.4 27.6	27.0	31 °C	Globe and Wet Bulb thermometer	03	03	Below TLV		UTTAM MEIYA JOYDIP DEY
SMS FURNACE NO C1	Heat Stress	02.12.2022	4	^0C	24.1 25.6 25.8 26.1	25.4	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV		UTTAM MEIYA JOYDIP DEY
SMS FURNACE NO C2	Heat Stress	02.12.2022	4	^0C	25.3 25.6 26.4 27.1	26.1	31 °C	Globe and Wet Bulb thermometer	03	02	Below TLV		UTTAM MEIYA JOYDIP DEY

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES ★ Kolkata

Sk. Abdul Faruk
Competent Person

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
SMS FURNACE NO A1	Heat Stress	02.12.2022	4	^0C	25.3 25.4 26.1 26.4	25.8	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV		UTTAM METYA JOYDIP DEY
SMS FURNACE NO A2	Heat Stress	02.12.2022	4	^0C	22.1 23.4 24.5 24.7	23.7	31 °C	Globe and Wet Bulb thermometer	03	01	Below TLV		UTTAM METYA JOYDIP DEY
SMS FURNACE CRUSHIBLE BASEMENT	Heat Stress	02.12.2022	4	^0C	23.4 23.6 24.8 24.9	24.2	31 °C	Globe and Wet Bulb thermometer	00	05	Below TLV		UTTAM METYA JOYDIP DEY
CCM BILLETS YARD	Heat Stress	02.12.2022	4	^0C	22.1 23.4 23.6 24.5	23.4	31 °C	Globe and Wet Bulb thermometer	09	04	Below TLV		UTTAM METYA JOYDIP DEY

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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 KILN PLATFROM 01	Heat Stress	02.12.2022	4	^0C	27.6 27.8 28.2 29.1	28.2	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY
DRI KILN PLATFROM 02	Heat Stress	02.12.2022	4	^0C	25.3 25.4 26.3 27.1	26.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY
DRI KILN PLATFROM 03	Heat Stress	02.12.2022	4	^0C	25.2 26.3 27.4 28.2	26.8	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY
DRI KILN PLATFROM 04	Heat Stress	02.12.2022	4	^0C	26.3 26.5 27.3 27.8	27.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
CCM CASTING FLOOR	Heat Stress	02.12.2022	4	^0C	25.4 25.6 26.1 26.3	25.9	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV		UTTAM METYA JOYDIP DEY
CCM BILLET CUTTING AREA	Heat Stress	02.12.2022	4	^0C	28.6 28.8 29.3 29.5	29.1	31 °C	Globe and Wet Bulb thermometer	04	03	Below TLV		UTTAM METYA JOYDIP DEY
CCM FITTER AREA	Heat Stress	02.12.2022	4	^0C	26.3 26.5 27.1 27.4	26.8	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV		UTTAM METYA JOYDIP DEY
CCM COOLING BELT	Heat Stress	02.12.2022	4	^0C	25.6 25.8 26.4 26.8	26.2	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
DRI QC LAB	Heat Stress	02.12.2022	4	^0C	25.3 25.9 26.3 26.5	26.0	31 °C	Globe and Wet Bulb thermometer	03	01	Below TLV		UTTAM METYA JOYDIP DEY
DRI 4 DSC AREA	Heat Stress	02.12.2022	4	^0C	27.1 27.3 27.6 28.2	27.6	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY
DRI 3 DSC AREA	Heat Stress	02.12.2022	4	^0C	25.8 25.9 26.5 26.8	26.3	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY
DRI 4 OUTLET AREA	Heat Stress	02.12.2022	4	^0C	26.5 26.8 27.1 27.3	26.9	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY

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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 3 OUTLET AREA	Heat Stress	02.12.2022	4	^0C	26.8 26.9 27.4 27.6	27.2	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY
DRI 2 OUTLET AREA	Heat Stress	02.12.2022	4	^0C	25.3 25.7 25.8 26.3	25.8	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY
DRI 2 DSC AREA	Heat Stress	02.12.2022	4	^0C	26.4 26.5 27.6 27.8	27.1	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY
DRI 1 DSC AREA	Heat Stress	02.12.2022	4	^0C	29.5 29.6 29.8 30.1	29.8	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
DRI 1 OUTLET AREA	Heat Stress	02.12.2022	4	^0C	26.5 25.8 26.1 26.3	26.2	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY
AFBC BOILER DRAIN POINT	Heat Stress	02.12.2022	4	^0C	26.2 26.5 27.4 27.5	26.9	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV		UTTAM METYA JOYDIP DEY
AFBC BOILER FURNACE FLOOR	Heat Stress	02.12.2022	4	^0C	28.3 28.6 29.3 29.8	29.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY
CPP TG FLOOR	Heat Stress	02.12.2022	4	^0C	24.3 25.6 25.8 26.4	25.5	31 °C	Globe and Wet Bulb thermometer	02	03	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
WHRB 4 RADIATION AREA	Heat Stress	02.12.2022	4	^0C	25.3 25.8 26.1 26.3	25.9	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	UM	UTTAM METYA JOYDIP DEY
WHRB 3 RADIATION AREA	Heat Stress	02.12.2022	4	^0C	24.6 24.8 25.6 25.8	25.2	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	UM	UTTAM METYA JOYDIP DEY
WHRB 2 RADIATION AREA	Heat Stress	02.12.2022	4	^0C	24.3 24.5 25.1 25.6	24.9	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	UM	UTTAM METYA JOYDIP DEY
WHRB 1 RADIATION AREA	Heat Stress	02.12.2022	4	^0C	23.1 23.4 24.5 24.6	23.9	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	UM	UTTAM METYA JOYDIP DEY

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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			
CPP QC LAB	Heat Stress	02.12.2022	4	^{0}C	22.1 22.5 22.8 23.1	22.6	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV		UTTAM METYA JOYDIP DEY
SMS FURNACE NO – 8A	Heat Stress	02.12.2022	4	^{0}C	18.5 18.9 19.6 19.8	19.2	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT WHRB 13.9 MW	Heat Stress	02.12.2022	4	^{0}C	17.2 17.5 18.2 18.6	17.9	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT DRI 350 DSC FLOOR	Heat Stress	02.12.2022	4	^{0}C	14.2 15.3 15.8 16.2	15.4	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY

NB: TLV: Threshold Limit Values

PIONEER SAFETY INDUSTRIES ★ Kolkata

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PROJECT DRI DSC 2ND FLOOR	Heat Stress	03.12.2022	4	^0C	14.3 14.6 15.4 15.6	15.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT DRI 350 KILN FLOOR	Heat Stress	03.12.2022	4	^0C	12.3 12.5 12.8 13.8	12.9	31 °C	Globe and Wet Bulb thermometer	04	03	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT DRI 350 OUTLET AREA	Heat Stress	03.12.2022	4	^0C	15.6 15.8 16.2 16.8	16.1	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT DRI 350 KCTB	Heat Stress	03.12.2022	4	^0C	16.5 16.8 16.9 17.2	16.9	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PROJECT DRI DRUM AREA	Heat Stress	03.12.2022	4	^0C	24.6 25.3 26.2 26.4	25.6	31 °C	Globe and Wet Bulb thermometer	03	02	Below TLV		UTTAM METYA JOYDIP DEY
PELLET 01 COLLER FLOOR	Heat Stress	03.12.2022	4	^0C	28.3 28.6 29.4 30.1	29.1	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV		UTTAM METYA JOYDIP DEY
PELLET KILN BURNER FLOOR	Heat Stress	03.12.2022	4	^0C	28.4 28.6 28.8 29.3	28.8	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV		UTTAM METYA JOYDIP DEY
PELLET KILN PLATFROM	Heat Stress	03.12.2022	4	^0C	29.6 29.8 30.2 30.4	30.0	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV		UTTAM METYA JOYDIP DEY

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			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 28.9 29.4 29.8	29.2	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY
PELLET PLANT TG BED	Heat Stress	03.12.2022	4	^0C	27.4 27.6 27.8 28.1	27.7	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV		UTTAM METYA JOYDIP DEY
PELLET PLANT TG FLOOR RIGHT SIDE	Heat Stress	03.12.2022	4	^0C	28.5 28.7 29.3 29.4	29.0	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV		UTTAM METYA JOYDIP DEY
PELLET PLANT RETURN FLOOR RIGHT SIDE	Heat Stress	03.12.2022	4	^0C	26.1 26.5 26.8 27.4	26.7	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PELLET PLANT TC RETURN LEFT SIDE	Heat Stress	03.12.2022	4	^0C	17.5 17.8 18.3 18.6	18.1	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV		UTTAM METYA JOYDIP DEY
PELLET PLANT FRIST FLOOR	Heat Stress	03.12.2022	4	^0C	16.5 16.8 17.2 17.3	17.0	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV		UTTAM METYA JOYDIP DEY
PELLET PLANT COMPRESSOR ROOM	Heat Stress	03.12.2022	4	^0C	15.3 15.4 15.7 16.2	15.7	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV		UTTAM METYA JOYDIP DEY
PELLET PLANT QC LAB	Heat Stress	03.12.2022	4	^0C	18.5 18.7 18.9 19.3	18.9	31 °C	Globe and Wet Bulb thermometer	07	02	Below TLV		UTTAM METYA JOYDIP DEY

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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 COOLER BASEMENT	Heat Stress	03.12.2022	4	^0C	17.2 17.5 18.1 18.3	17.8	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	UM JOY	UTTAM METYA JOYDIP DEY
FILTER PRESS WIDE BELT CONVEYOR	Heat Stress	03.12.2022	4	^0C	15.3 15.8 15.9 16.2	15.8	31 °C	Globe and Wet Bulb thermometer	01	02	Below TLV	UM JOY	UTTAM METYA JOYDIP DEY
FILTER PRESS 10 MTR	Heat Stress	03.12.2022	4	^0C	14.3 14.6 15.2 15.3	14.9	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	UM JOY	UTTAM METYA JOYDIP DEY
FILTER PRESS 16 MTR	Heat Stress	03.12.2022	4	^0C	15.2 15.6 16.1 16.3	15.8	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	UM JOY	UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
FILTER PRESS 12 MTR	Heat Stress	03.12.2022	4	^0C	15.3 15.4 15.6 16.2	15.6	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	UM	UTTAM METYA JOYDIP DEY
PRIMARY BALLL MILL	Heat Stress	03.12.2022	4	^0C	15.4 15.6 15.8 16.2	15.8	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV	UM	UTTAM METYA JOYDIP DEY
SECONDARY BALL MILL	Heat Stress	03.12.2022	4	^0C	14.3 14.5 15.2 15.8	15.0	31 °C	Globe and Wet Bulb thermometer	03	01	Below TLV	UM	UTTAM METYA JOYDIP DEY
BALL MILL SCRUBER AREA	Heat Stress	03.12.2022	4	^0C	14.5 14.8 15.2 15.6	15.0	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV	UM	UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
MIXTURE AREA	Heat Stress	03.12.2022	4	^0C	14.5 14.8 15.2 15.3	15.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV		UTTAM METYA JOYDIP DEY
SMS QC LAB	Heat Stress	03.12.2022	4	^0C	14.6 14.8 15.2 15.3	15.0	31 °C	Globe and Wet Bulb thermometer	04	02	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT PELLET 2 TG 1ST FLOOR	Heat Stress	03.12.2022	4	^0C	16.3 16.8 17.1 17.5	16.9	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT PELLET 2 KILN PLATFROM	Heat Stress	03.12.2022	4	^0C	20.3 21.5 21.6 22.4	21.5	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PROJECT PELLET 2 TG RETURN FLOOR	Heat Stress	03.12.2022	4	^0C	18.3 18.7 19.2 19.5	18.9	31 °C	Globe and Wet Bulb thermometer	02	04	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT PELLET 2 SWING CONVEYOR	Heat Stress	03.12.2022	4	^0C	19.6 20.4 20.6 21.3	20.5	31 °C	Globe and Wet Bulb thermometer	10	04	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT PELLET TG FLOOR	Heat Stress	03.12.2022	4	^0C	21.3 21.5 22.1 22.3	21.8	31 °C	Globe and Wet Bulb thermometer	10	02	Below TLV		UTTAM METYA JOYDIP DEY
PGP GROUND FLOOR TARPIT AREA	Heat Stress	03.12.2022	4	^0C	20.4 20.6 20.9 21.4	20.8	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PGP 4 MTR ASH PAN AREA NO-2	Heat Stress	03.12.2022	4	^{0}C	24.6 24.8 24.9 25.6	25.0	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV		UTTAM METYA JOYDIP DEY
PGP 4 MTR ASH PAN AREA NO-3	Heat Stress	03.12.2022	4	^{0}C	24.8 25.2 25.6 26.3	25.5	31 °C	Globe and Wet Bulb thermometer	01	01	Below TLV		UTTAM METYA JOYDIP DEY
PGP 6 MTR AREA	Heat Stress	03.12.2022	4	^{0}C	20.1 20.5 21.4 21.8	21.0	31 °C	Globe and Wet Bulb thermometer	00	03	Below TLV		UTTAM METYA JOYDIP DEY
PGP 8 MTR PACKING AREA NO - 2	Heat Stress	03.12.2022	4	^{0}C	23.1 23.4 24.1 24.5	23.8	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
PGP 8 MTR PACKING AREA NO - 3	Heat Stress	03.12.2022	4	^0C	26.3 26.5 26.8 27.1	26.7	31 °C	Globe and Wet Bulb thermometer	05	02	Below TLV		UTTAM METYA JOYDIP DEY
PGP 14 MTR CHARGING	Heat Stress	03.12.2022	4	^0C	25.3 25.4 25.8 26.3	25.7	31 °C	Globe and Wet Bulb thermometer	03	02	Below TLV		UTTAM METYA JOYDIP DEY
PGP 21 MTR COAL STOCK BIN AREA	Heat Stress	03.12.2022	4	^0C	24.8 25.2 25.6 26.3	25.5	31 °C	Globe and Wet Bulb thermometer	02	01	Below TLV		UTTAM METYA JOYDIP DEY
PROJECT 13.9 MW ACC BUILDING	Heat Stress	03.12.2022	4	^0C	17.2 17.4 18.2 18.3	17.8	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV		UTTAM METYA JOYDIP DEY

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			No. of Reading	Unit	Range	Average			Continuous Exposure	Short time Exposure			
BFP PUMP CPP 10 MW AREA	Heat Stress	03.12.2022	4	^0C	24.6 24.8 25.1 25.4	25.0	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	UM JDey	UTTAM METYA JOYDIP DEY
TG BUILDING 10 MW MCC ROOM	Heat Stress	03.12.2022	4	^0C	24.3 24.8 26.4 26.7	25.6	31 °C	Globe and Wet Bulb thermometer	00	02	Below TLV	UM JDey	UTTAM METYA JOYDIP DEY
TG TOP FLOOR 10 MW	Heat Stress	03.12.2022	4	^0C	23.1 23.5 23.8 24.5	23.7	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	UM JDey	UTTAM METYA JOYDIP DEY
OLD ACC AREA	Heat Stress	03.12.2022	4	^0C	26.5 26.8 27.2 27.6	27.0	31 °C	Globe and Wet Bulb thermometer	00	01	Below TLV	UM JDey	UTTAM METYA JOYDIP DEY

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PIONEER SAFETY INDUSTRIES ★ Kolkata

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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.**

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PHOTOGRAPHS OF WORK ZONE MONITORING

Pellet 1 Cooler Floor Photo

TG Bed Photo

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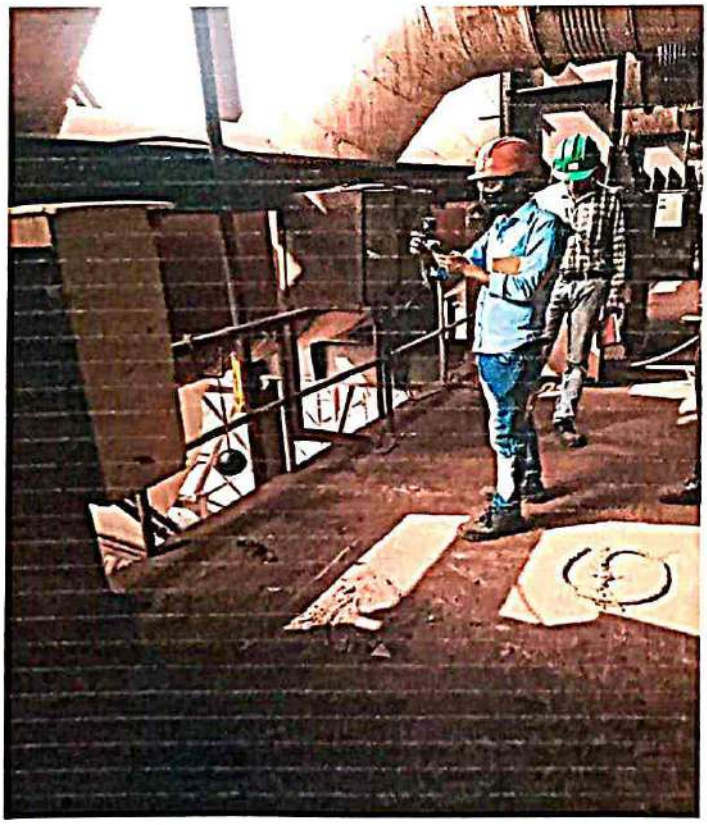
PHOTOGRAPHS OF WORK ZONE MONITORING

PELLET 1 BURNER FLOOR



TG Return Area Photo

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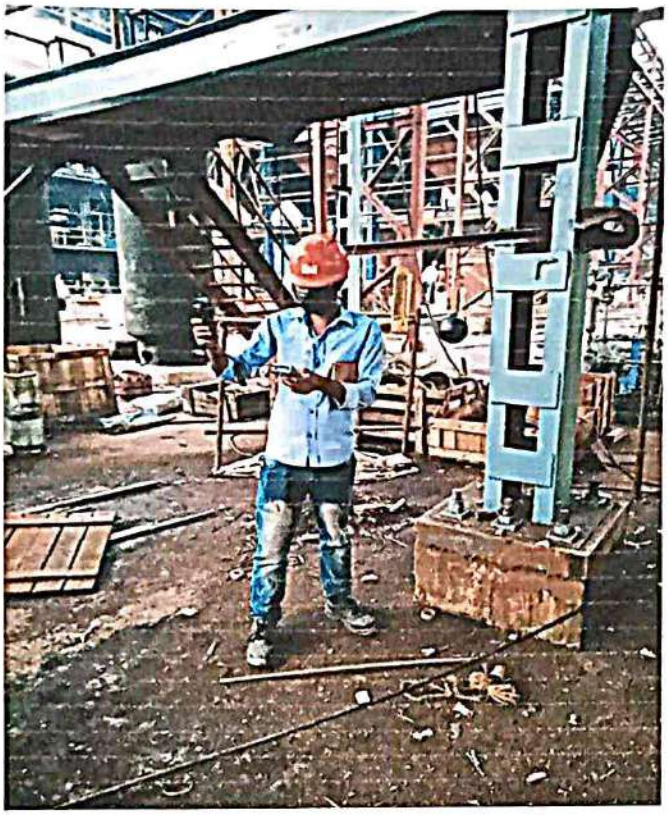
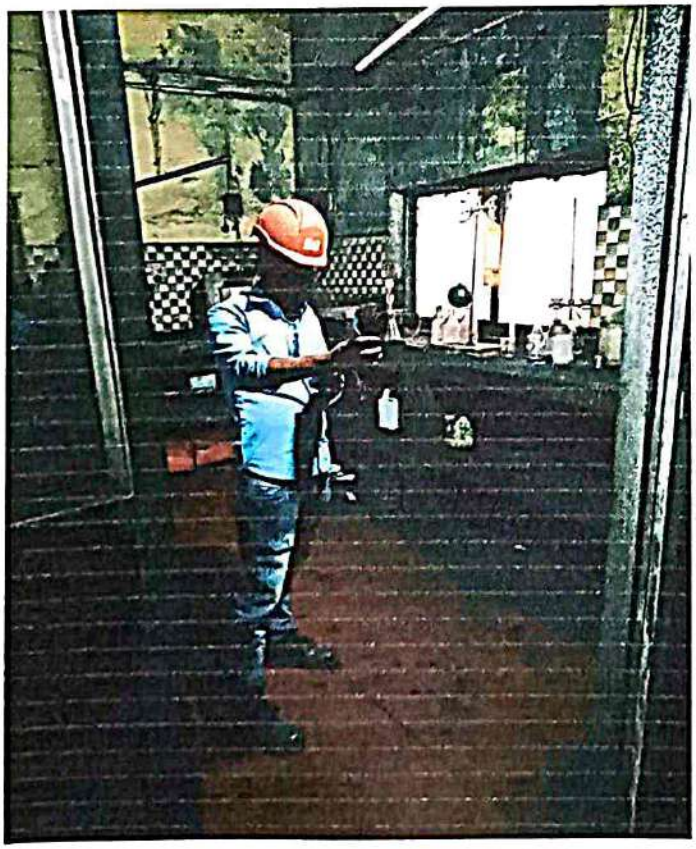
PHOTOGRAPHS OF WORK ZONE MONITORING



PROJECT WHRB 13.9 MW



DRI QC LAB HEAT ZONE

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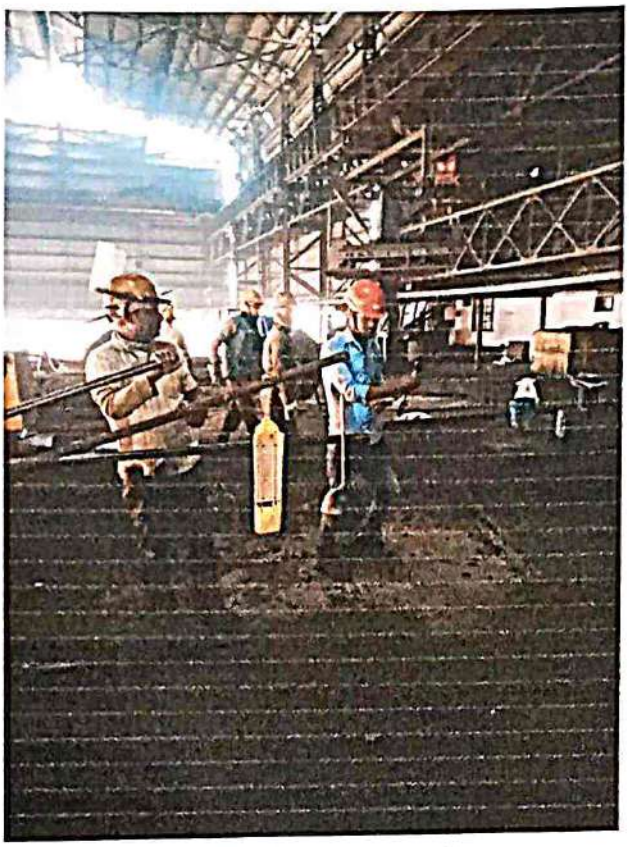
PHOTOGRAPHS OF WORK ZONE MONITORING



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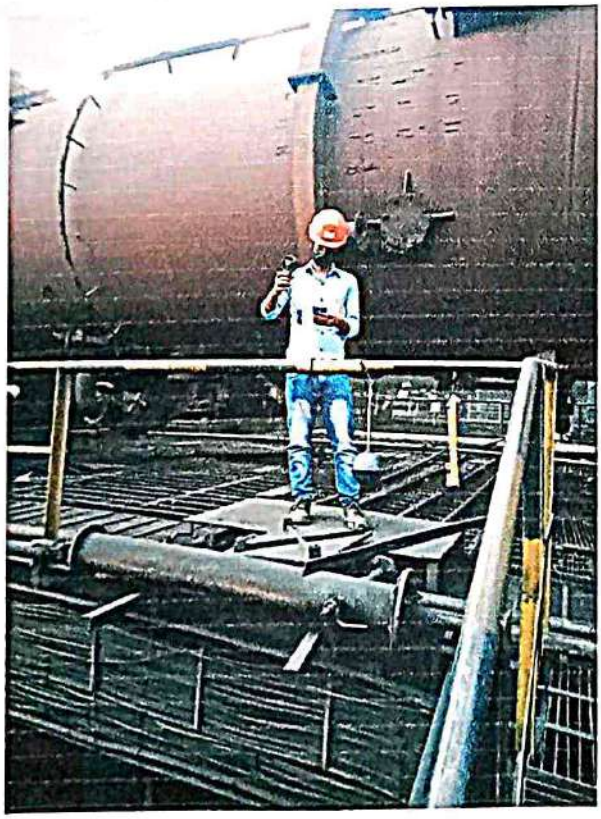
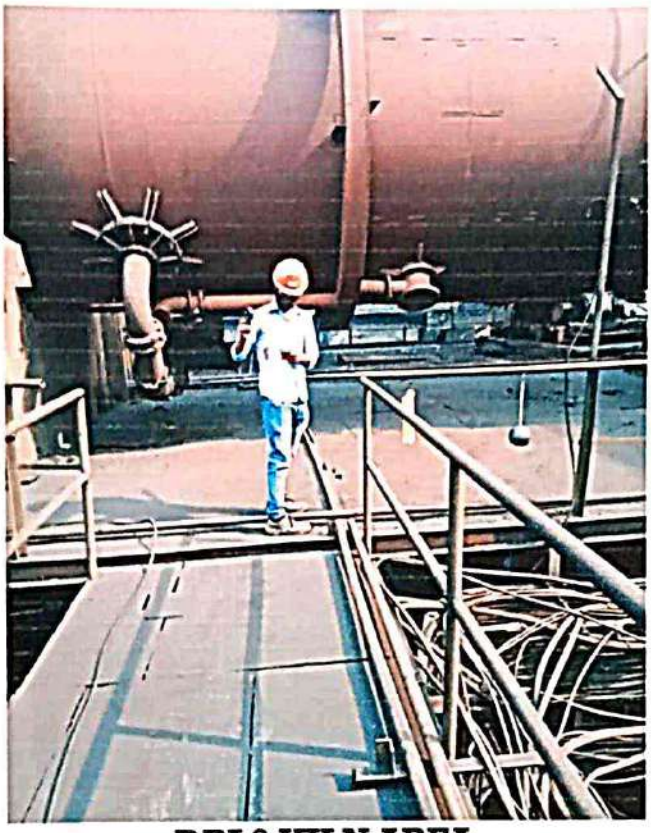


DRI 1 KILN AREA

PHOTOGRAPHS OF WORK ZONE MONITORING



DRI 2 KILN AREA

DRI 3 DSC AREA

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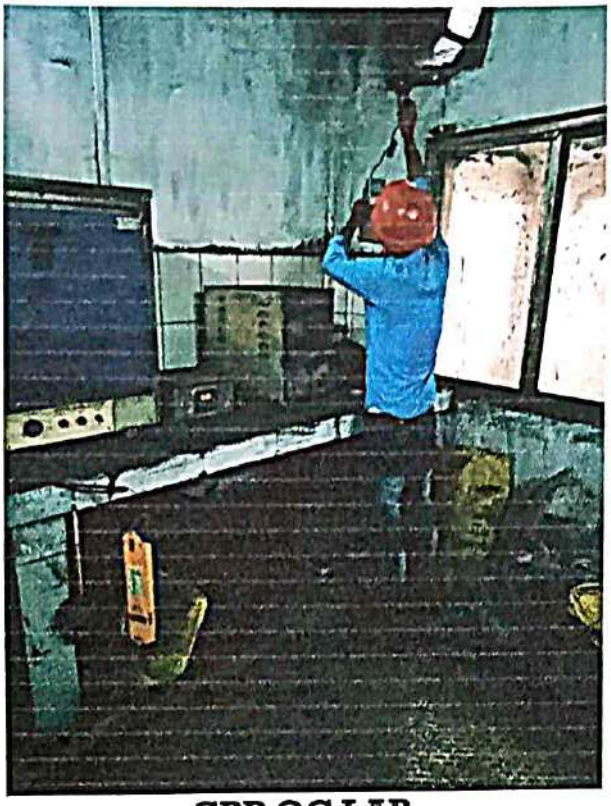
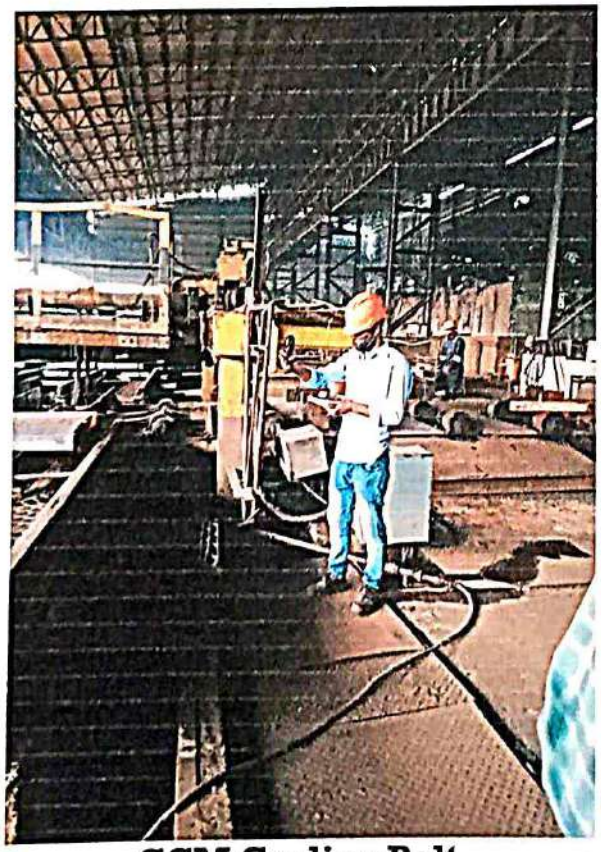
PHOTOGRAPHS OF WORK ZONE MONITORING



CPP QC LAB

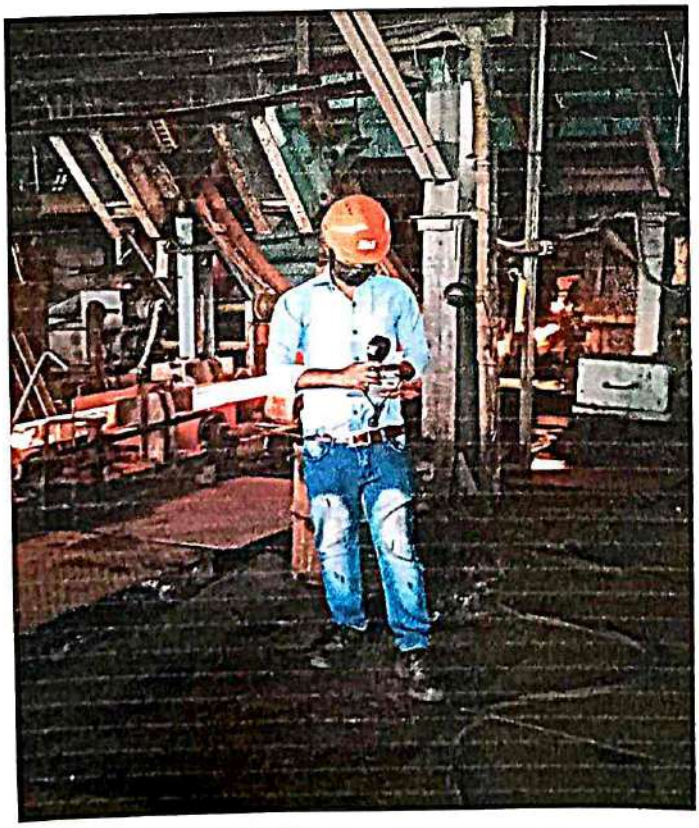


CCM Cooling Belt

PIONEER SAFETY INDUSTRIES Kolkata

PHOTOGRAPHS OF WORK ZONE MONITORING

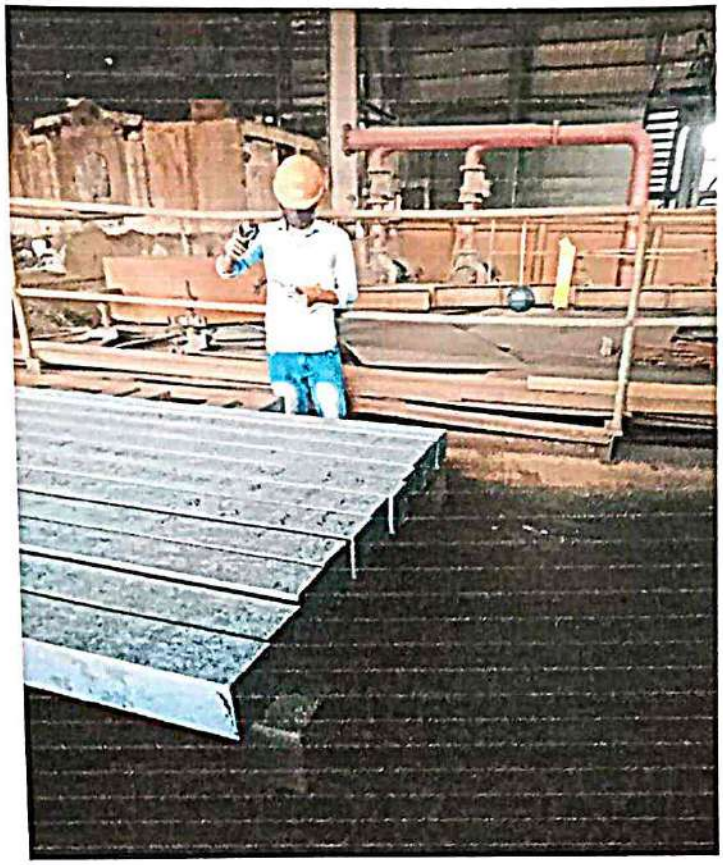
CCM CASTING



CCM Billet cutting area

PIONEER SAFETY INDUSTRIES Kolkata

PHOTOGRAPHS OF WORK ZONE MONITORING



CCM Billets Yards

PIONEER SAFETY INDUSTRIES Kolkata

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.

PIONEER SAFETY INDUSTRIES ★ Kolkata

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)

PIONEER SAFETY INDUSTRIES ★ Kolkata

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 Kumar Shit
Director /Chief Inspector
of Factories, West Bengal

DIRECTORATE OF FACTORIES ★ GOVT ★

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 LTD

VILLAGE:MOHUDA ,PS:PARA, PO:RUKNI, DIST:PURULIA,WEST BENGAL-723145.

DETAILS OF EMPLOYEES FOR HEALTH CHECK UP FOR THE PERIOD OF DEC-2022 TO MARCH 2023

Medical Officer
Bravo Sponge Iron PVT. LTD.
Mohuda, P.O. Rukni Dist Purulia (W.B.)

SR. NO	CODE	EMPLOYEES NAME (MR.)	D.O.B	FATHER NAME (MR.)	PARAMETERS									REMARKS
					WEIGHT/ KG	BP	PULSE RATE	BLOOD GROUP	RH FACTOR	ECG	X RAY	AUDIOMETERY	EYE VISION	
1	B10003373	JAYANTA DAS	20-05-1991	SADANAND DAS	63	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
2	B10003378	GANGADHAR KUNDU	01-04-1993	KARTIK KUNDU	86	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
3	B10003379	UTTAM NAYAK	02-04-1987	ALAK NATH NAYAK	65	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
4	B10003357	ANANTA CHARAN ROUT	12-04-1977	BHASKAR CHANDRA ROUT	78	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
5	B10003358	ABDUS SALAM	10-12-2022	MD AHMAD HUSSAIN	59	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
6	B10003369	BHABANI GORAI	01-04-1994	DAYAMOY GORAI	61	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
7	B10003356	ABHISHEK KUMAR	30-04-1993	NIRANJAN KUMAR SINGH	63	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
8	B10003384	RAKESH DAS	08-04-1995	TARANI DAS	53	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
9	B10003389	BAIDYANATH GOPE	09-11-2003	SUNIL GOPE	80	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
10	B10003391	DEEPAK SHARMA	06-11-1984	LADDULAL SHARMA	73	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
11	B10003377	TAPAS DEY	20-04-1990	NAREN DEY	84	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
12	B10003383	JAYANTA SARKAR	02-05-1998	JAYDEB SARKAR	52	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
13	B10003380	RAJIB MAJI	22-10-1992	ANATH MAJI	72	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
14	B10003365	AJAY KAIBARTA	12-12-1998	CHEPU KAIBARTA	60	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
15	B10003367	SRINIBAS RANA	02-06-1999	KISHORE RANA	90	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
16	B10003434	BAIDYANATH SINGH	10-03-1987	DHIRENDRA KUMAR SINGH	65	NORMAL	NORMAL	B	NEGATIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
17	B10003439	RUPESH KUMAR	01-03-1979	SHREEPATI SHARMA	79	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
18	B10003424	RAKESH PAL	17-03-2000	RAMPAL	55	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
19	B10003448	BRAJESH SINGH	04-07-1982	BHARAT SINGH	98	NORMAL	NORMAL	AB	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
20	B10003398	BUDDHADEV DEBNATH	09-01-1978	NILKANTHA DEBNATH	66	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
21	B10003419	DIPAK MAHATO	23-05-2001	SUBASH MAHATO	58	NORMAL	NORMAL	AB	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
22	B10003400	BAIJU YADAV	08-10-1988	PURAN YADAV	65	NORMAL	NORMAL	B	NEGATIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
23	B10003432	SANDEEP KUMAR	24-01-1989	BASISTH PRASAD SINGH	73	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
24	BI0003447	MD FIROZ KHAN	20-08-1997	MD SOHRAB KHAN	72	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
25	B10003423	MANPURAN MAJEE	10-11-2022	HRISHIKESH MAJEE	50	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
26	B10003425	TANMAY SAHIS	21-06-2003	NEPAL CHANDRA SAHIS	55	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
27	B10003406	JABIR ANSARI	01-03-2001	SAFID ANSARI	52	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
28	B10003410	SOMNATH DUTTA	28-01-2002	MANIK DUTTA	53	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
29	B10003409	SANJIB PAL	12-09-2001	BIKASH CHANDRA PAL	60	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
30	B10003408	HEMONTO MUKHERJEE	31-01-2000	KANCHAN MUKHERJEE	61	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL

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31	B10003411	RAJESH MAJEE	16-09-2000	ADITYA MAJEE	52	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
32	B10003396	ARPAN PAL	25-04-1995	PRASANTA KUMAR PAL	85	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
33	B10003412	AMARTYA CHATTERJEE	12-03-2000	SANTOSH CHATERJEE	53	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
34	B10003418	GOURAB KUMBHAKAR	03-09-2001	TAPAN KUMBHAKAR	90	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
35	B10003422	RANDHIR RAZAK	31-12-2000	ASWININ KUMAR RAJAK	80	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
36	B10003414	PURNA CHANDRA GORAI	02-12-2000	ARUN GARAI	63	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
37	B10003413	NAYAN MAJEE	26-01-2002	PASHUPATI MAJEE	58	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
38	B10003395	DINESH MAHATO	15-02-1991	RADHANATH MAHATO	59	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
39	B10003429	KALYAN BISTU	22-05-2002	HARADHAN BISTU	50	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
40	B10003404	BAIDYANATH BASKEY	20-11-2000	SURYAKANT BASKEY	55	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
41	B10003446	DEBI PRASAD PATRA	06-11-1982	BINOD BIHARI PATRA	62	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
42	B10003402	SANIB DE	19-08-1996	SHANKAR DE	76	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
43	B10003397	MD MUSHTAQUE ANSARI	04-02-1990	TAUQEER ALI	91	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
44	B10003426	KINGSHUK MUKHAPADHYAY	29-12-1988	RANJIT MUKHAPADHYAY	87	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
45	B10003442	BIKASH MONDAL	25-04-1994	GORACHANA MONDAL	63	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
46	B10003393	AKHTAR SHEKH	01-01-1982	MD AMIN SHEIKH	88	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
47	B10003401	DEBASHIS PARAMANIK	12-04-1992	SAMIR PARAMANIK	70	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
48	B10003435	RAJEEV KUMAR TIWARI	11-10-1992	YOGENDRA TIWARI	75	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
49	B10003443	DHIREN MAJEE	25-03-1986	DHARANI MAJEE	82	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
50	B10003403	KAJI SAFIRUDDIN	12-02-2000	KASI ISUP	55	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
51	B10003436	RAJKISHORE MAHATO	12-11-1998	BHAKRU MAHATO	68	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
52	B10003438	CHIRANJIT BHANDARI	14-01-1993	DHIREN BHANDARI	60	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
53	B10003441	PARTHA SHAW	12-03-1991	KANAI SHAH	50	NORMAL	NORMAL	AB	NEGATIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
54	B10003430	KUNTAL SARKAR	08-01-1994	KUMUD RANJAN SARKAR	55	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
55	B1000 3444	DIBAKAR MAHATO	02-02-1982	LAFAR MAHATO	90	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
56	B10003417	BISWAJIT KUMBHAKAR	09-11-2000	C B KUMBHAKAR	75	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
57	B10003415	SANDIP PARMANIK	26-01-1998	GOUTAM PARAMANIK	60	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
58	B10003407	SUMAN HALDAR	23-08-2001	DIPAK HALDAR	52	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
59	B10003416	JIBAN MANDAL	28-10-2000	DARIKNATH MANDAL	63	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
60	B10003485	PRANAY KUMAR DAS	20-09-1998	SWAPAN KUMAR DAS	80	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
61	B10003526	SABYASACHI MAHATO	07-06-2000	RABINDRANATH MAHATO	65	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
62	B10003525	SNEHASIS MANDAL	15-05-2000	SANTOSH MANDAL	79	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
63	B10003455	BASANTA MANDAL	09-02-1999	SUBHAS MANDAL	54	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
64	B10003453	SHIOJEE SHARMA	23-05-1975	JAMUNA SHARMA	59	NORMAL	NORMAL	AB	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
65	B10003470	DILKUSH RUIDAS	15-05-1988	DIPU RUIDAS	84	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
66	B10003500	RAJNISH MANJHI	01-01-2000	SURESH MANJHI	70	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL

Medical Officer
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Mahuda, P.O. Rukni Dist Purulia (W.B.)

67	B10003468	GOUTAM RUDRA	06-11-1981	BASUDEB RUDRA	60	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
68	B10003456	KISHORE PATRA	29-03-1992	UTTAM PATRA	90	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
69	B10003504	RANJIT DAS	09-01-1992	SUDHAKAR DAS	74	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
70	B10003464	BABAN ROY	10-02-1986	BINDESWARI ROY	65	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
71	B10003511	JAYANTA MAJHI	10-04-1997	SUJIT MAJI	95	NORMAL	NORMAL	AB	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
72	B10003476	SANTOSH KUMAR PANDIT	20-02-1986	JANARDHAN PANDIT	80	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
73	B10003467	SUBHASISH DEY	22-03-1993	TAPANKUMAR DEY	64	NORMAL	NORMAL	AB	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
74	B10003452	SUBHAM HALDER	10-01-2001	SUBODH HALDER	70	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
75	B10003480	PRANAB TUNGA	01-01-1991	SUKHMAYA TUNGA	65	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
76	B10003508	Jasimuddin Ansary	15-09-2000	Maniruddin Ansary	60	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
77	B10003509	Pulakesh Paitandi	25-01-2001	Chinmoy Paitandi	82	NORMAL	NORMAL	AB	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
78	B10003510	Radheshyam Mahato	08-11-1999	Dharnidhar Mahato	88	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
79	B10003479	Faguram Hansda	11-06-1990	Shilu Hansda	90	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
80	B10003493	Surajit Rana	01-02-1999	Tarapada Rana	71	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
81	B10003475	Dasrath Dey	04-06-1995	Bidhan Dey	80	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
82	B10003475	Chinmoy Chatterjee	01-09-1980	Swadesh Chatterjee	95	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
83	B10003501	Dinesh Chandra Mahato	02-11-1989	Debendranath Mahato	54	NORMAL	NORMAL	AB	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
84	B10003502	Suman Majee	01-05-1996	Tapan Kumar Majee	53	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
85	B10003454	SK Jahangir Ali	01-12-1973	SK Abdul Hai	84	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
86	B10003527	Ajay Kumar	29-10-1995	Dinbandhu Mahato	55	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
87	B10003486	Ravindra Kumar Saw	11-08-1992	Ramjee Saw	62	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
88	B10003512	Koushik Mondal	01-02-2002	Tutal Mondal	67	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
89	B10003466	Srikanta Dey	26-04-1983	Raghunath Dey	72	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
90	B10003524	Binod Gorain	03-01-2002	Krishnapada Gorain	69	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
91	B10003520	Satish Chouhan	09-06-1998	Mahesh Chouhan	55	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
92	B10003518	Bapi Ray	23-01-2002	Goutam Ray	57	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
93	B10003517	Laxmikanta Hansda	06-05-2001	Mishin Hansda	54	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
94	B10003514	Parthasarathe Majee	18-07-1997	Sankar Majee	61	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
95	B10003521	Kartik Kumbhakar	16-11-2001	Shibram Kumbhakar	56	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
96	B10003488	Sumit Roy	03-03-2000	Subhas Roy	52	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
97	B10003515	Bikram Majee	15-11-2000	Manik Chandra Majee	55	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
98	B10003513	Bhaskar Patar	28-03-2001	Sasthi Patar	52	NORMAL	NORMAL	A	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
99	B10003463	Sudhakar Samal	08-02-1982	Kalandi Charan Samal	74	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
100	B10003522	Sukanta Gorai	17-12-1998	Ramdulal Gorai	62	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
101	B10003506	Bibek Chakraborty	11-11-1997	Nimai Chakraborty	71	NORMAL	NORMAL	AB	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
102	B10003505	Arabindu Mandal	17-02-2001	Tapan Mandal	65	NORMAL	NORMAL	O	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL

103	B10003494	Partha Mahato	06-04-1996	Mahabir Mahato	57	NORMAL	NORMAL	B	POSITIVE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL

30/03/23

Medical Officer Reg no - 600229
Bravo Sponge Iron PVT. LTD.
Mahuda, P.O. Ruiri Dist Purulia (W.B.)

Annexure - 17

আজকাল
কলকাতা শনিবার ৭ নভেম্বার, ২০২০
(http://www.eaajkaal.in)

NEHRU MEMORIAL TECHNO GLOBAL HOSPITAL Care with Compassion
(http://www.technoglobalhospital.com)

ফর্ম নং- আইএনসি-২৫এ

পাবলিক কোম্পানি থেকে প্রাইভেট কোম্পানিতে পরিবর্তন উপলক্ষে সংবাদপত্রে বিজ্ঞাপন প্রকাশ

রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, কর্পোরেট বিষয়ক মন্ত্রক, কলকাতা সমীপে

কোম্পানি আইন, ২০১৩, কোম্পানি আইন ২০১৩-এর ১৪ ধারা এবং

কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪-এর রুল ৪১ অনুসারে, বিষয়: **মেসার্স দি ইন্ডাস্ট্রিয়াল গ্যাসেস লিমিটেড,** রেজিস্টার্ড অফিস: ১৫, গণেশচন্দ্র অ্যাভিনিউ, কলকাতা- ৭০০ ০১৩

... আবেদনকারী

এতদ্দ্বারা জনসাধারণের প্রতি বিজ্ঞপ্তি জারি করা হচ্ছে যে, পাবলিক কোম্পানি থেকে প্রাইভেট কোম্পানিতে বদলের উদ্দেশ্যে **৩ নভেম্বর, ২০২০** তারিখে বিশেষ সাধারণ সভায় গৃহীত বিশেষ প্রস্তাব অনুযায়ী কোম্পানির সজ্ঞস্মারকের রদবদলের অনুমোদন প্রার্থনা করে কোম্পানিজ অ্যাক্ট ২০১৩-এর ১৪ ধারা অনুসারে কেন্দ্রীয় সরকার-এর কাছে সংশ্লিষ্ট কোম্পানি একটি আবেদন করার প্রস্তাব করেছে।

কোম্পানির রেজিস্টার্ড অফিসের প্রস্তাবিত স্ট্যাটাস পরিবর্তনের ফলে স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশের তারিখ থেকে চোদ্দো দিনের মধ্যে রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, ২৩৪, এ জে সি বোস রোড, নিজাম প্যালেস, II এমএস ও বিল্ডিং, ৪র্থ তল, কলকাতা-৭০০০২০-এর কাছে তাঁর/তাঁদের (স্ত্রী/পুং) স্বার্থের ধরন এবং বিরোধিতার কারণ উল্লেখ করে একটি হলফনামা দ্বারা সমর্থিত আপত্তিসমূহ রেজিস্টার্ড ডাকযোগে পাঠাতে পারেন, তৎসহ নিচে বর্ণিত ঠিকানাতে অবস্থিত অফিসে, আবেদনকারী কোম্পানির কাছেও একটি কপি পাঠাতে পারেন।

আবেদনকারী: দি ইন্ডাস্ট্রিয়াল গ্যাসেস লিমিটেডের পক্ষে
স্বাঃ তেজেন্দ্র গর্গ
ডিরেক্টর
DIN: 01417829

তারিখ: ০৬.১১.২০২০
স্থান: কলকাতা

রেজিস্টার্ড অফিসের সম্পূর্ণ ঠিকানা:
১৫, গণেশচন্দ্র অ্যাভিনিউ, কলকাতা- ৭০০ ০১৩

প্রকাশ্য বিজ্ঞপ্তি

এতদ্দ্বারা এই নোটিস জারি করা হচ্ছে যে, **পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি**-তে রেজিস্টার্ড অফিস স্থানান্তর নিশ্চিতকরণের জন্য **লিঙ্কলাইন ট্রেডলিঙ্ক এলএলপি** দ্বারা রেজিস্ট্রারের অফিসে লিমিটেড লায়াবিলিটি পার্টনারশিপ অ্যাক্ট, ২০০৮-এর ১৩ নং ধারাধীনে একটি নোটিস পাঠানো হবে।

রেজিস্টার্ড অফিস পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে স্থানান্তরের উক্ত প্রস্তাবে কারও স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা থাকলে যে কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার তারিখ থেকে ২১ দিনের মধ্যে তাঁর (পুং/ স্ত্রী) স্বার্থের ধরন ও বিরোধিতার কারণ উল্লেখ করে রেজিস্ট্রারের কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই লিঙ্কলাইন ট্রেডলিঙ্ক এলএলপি-এর নিম্নলিখিত রেজিস্টার্ড অফিসের ঠিকানায় পেশ করতে হবে:

রেজিস্টার্ড অফিসের ঠিকানা: ৩এ, আর কে চ্যাটার্জি রোড, কলকাতা-৭০০০৪২।

লিঙ্কলাইন ট্রেডলিঙ্ক এলএলপি-এর তরফে
স্বাঃ- বিজাল মোদি
(বডি কর্পোরেট ডিপি নমিনি)
ডিআইএন: 08413323

তারিখ: ০৬.১১.২০২০
স্থান: কলকাতা

প্রকাশ্য বিজ্ঞপ্তি

এতদ্দ্বারা এই নোটিস জারি করা হচ্ছে যে, **পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি**-তে রেজিস্টার্ড অফিস স্থানান্তর নিশ্চিতকরণের জন্য **গ্ল্যামার শপার্স এলএলপি** দ্বারা রেজিস্ট্রারের অফিসে লিমিটেড লায়াবিলিটি পার্টনারশিপ অ্যাক্ট, ২০০৮-এর ১৩ নং ধারাধীনে একটি নোটিস পাঠানো হবে।

রেজিস্টার্ড অফিস পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে স্থানান্তরের উক্ত প্রস্তাবে কারও স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা থাকলে যে কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার তারিখ থেকে ২১ দিনের মধ্যে তাঁর (পুং/ স্ত্রী) স্বার্থের ধরন ও বিরোধিতার কারণ উল্লেখ করে রেজিস্ট্রারের কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই গ্ল্যামার

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 লিঃ-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, ০৩৩২২২৬৮৮৮২
ইমেল: info@bmwil.co.in
Website: www.bmwil.co.in
CIN: L51109WB1981PLC034212

বিজ্ঞপ্তি

সিকিউরিটিজ অ্যান্ড এক্সচেঞ্জ বোর্ড অফ ইন্ডিয়া (লিস্টিং অবলিগেশনস অ্যান্ড ডিসক্লোজার রিক্যায়ারমেন্টস) রেগুলেশনস ২০১৫ **('লিস্টিং রেগুলেশনস')** রেগুলেশন ২৯ এবং সূচী-৩-এর অংশ ক অনুযায়ী বিজ্ঞপ্তি প্রদান করা হচ্ছে যে, কোম্পানির দ্বিতীয় ত্রৈমাসিক এবং ষাণ্মাসিক সমাপ্ত ৩০শে সেপ্টেম্বর, ২০২০ সময়ের অপরীক্ষিত একক এবং একীকৃত আর্থিক ফলাফল 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
স্বাঃ বিক্রম কাপুর
কোম্পানি সেক্রেটারি
Acs No: A9812

তারিখ: ৬ নভেম্বর, ২০২০
স্থান: কলকাতা

NOTICE

My client Banibrata Sanyal died intestate on 23rd July 2016 leaving behind her sister Sovona Chakraborty as his sole legal heir in respect of one residential Flat being No C/4 on the 4th Floor of the Building known as "REVATI" having measurement of 1280 sq. ft. Super built up area more or less within Neelachal Abasan Co-operative Society Ltd situated at premises no 98, Rajdanga Gold Park, Kolkata- 700107, Police Station Kasba, within the Kolkata Municipal Corporation, District- South 24 Parganas and the said Sovona Chakraborty died intestate on 10th August 2019 leaving behind her only daughter Mrs Sreeparna Chakraborty (Sengupta) as her sole legal heir. If any person has any claim of any nature in the said property please claim with documents within 15 days from this publication under my address otherwise it shall be deemed to have no claim of any nature the above said property.

Anirban Gope, Advocate
22, R.N.Mukherjee Road, 4th Floor
Kolkata- 700057

বিজ্ঞপ্তি

সকলকে জানানো যাইতেছে যে, আমরা ব্রাভো স্পঞ্জ আয়রন প্রাঃ লিঃ, পরিবেশ বন ও জলবায়ু পরিবর্তন মন্ত্রণালয়,

শপার্স এলএলপি-এর নিম্নলিখিত রেজিস্টার্ড অফিসের ঠিকানায় পেশ করতে হবে:
রেজিস্টার্ড অফিসের ঠিকানা: ৩এ, আর কে চ্যাটার্জি রোড, কলকাতা-৭০০০৪২।

গ্ল্যামার শপার্স এলএলপি-এর তরফে
স্বাঃ- কোভিড মুখার্জি
(বডি কর্পোরেট
তারিখ: ০৬.১১.২০২০ ডিপি নমিনি)
স্থান: কলকাতা ডিআইএন: 03570652

প্রকাশ্য বিজ্ঞপ্তি

এতদ্দ্বারা এই নোটিস জারি করা হচ্ছে যে, **পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি**-তে রেজিস্টার্ড অফিস স্থানান্তর নিশ্চিতকরণের জন্য **গোল্ডস্মিথ শপার্স এলএলপি** দ্বারা রেজিস্ট্রারের অফিসে লিমিটেড লায়াবিলিটি পার্টনারশিপ অ্যাক্ট, ২০০৮-এর ১৩ নং ধারাধীনে একটি নোটিস পাঠানো হবে।
রেজিস্টার্ড অফিস পশ্চিমবঙ্গ রাজ্য থেকে ন্যাশনাল ক্যাপিটাল টেরিটরি অফ দিল্লি-তে স্থানান্তরের উক্ত প্রস্তাবে কারও স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা থাকলে যে কোনও ব্যক্তি এই বিজ্ঞপ্তি সংবাদপত্রে প্রকাশিত হওয়ার তারিখ থেকে ২১ দিনের মধ্যে তাঁর (পুং/ স্ত্রী) স্বার্থের ধরন ও বিরোধিতার কারণ উল্লেখ করে রেজিস্ট্রারের কাছে লিখিতভাবে জানান এবং এর একটি কপি অবশ্যই গোল্ডস্মিথ শপার্স এলএলপি-এর নিম্নলিখিত রেজিস্টার্ড অফিসের ঠিকানায় পেশ করতে হবে:
রেজিস্টার্ড অফিসের ঠিকানা: ৩এ, আর কে চ্যাটার্জি রোড, কলকাতা-৭০০০৪২।

গোল্ডস্মিথ শপার্স এলএলপি-এর তরফে
স্বাঃ- পবন কুমার অনছলিয়া
(বডি কর্পোরেট
তারিখ: ০৬.১১.২০২০ **ডিপি নমিনি)**
স্থান: কলকাতা **ডিআইএন: 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: **ওয়ান্ডারফুল ডিলার এলএলপি (LL-PIN:AAT-8257)** যার রেজিস্টার্ড অফিস প্রযত্নে বেদপ্রকাশ কান্দোই, ঘর নং ৫৫, ভূপেন্দ্র বোস অ্যাভিনিউ, ফ্ল্যাট ২ বি, ৩য় তল, কলকাতা-৭০০ ০০৪
জনসাধারণকে এতদ্দ্বারা বিজ্ঞপ্তি প্রদান করা হচ্ছে যে, এল এল পি লিমিটেড লাইবেলিটি পার্টনারশিপ অ্যাক্ট ২০০৮ সেকশন ১৩ (৩) অনুযায়ী তাদের রেজিস্টার্ড অফিস **'পশ্চিমবঙ্গ রাজ্য'** থেকে **'আসাম রাজ্যে'** স্থানান্তরের জন্য রেজিস্ট্রার-এর কাছে একটি আবেদন জমা করবার প্রস্তাব করেছেন।
এলএলপি-এর প্রস্তাবিত পরিবর্তনের ফলে স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশিত হওয়ার ২১ (একুশ) দিনের মধ্যে রেজিস্ট্রার অফ কোম্পানিজ, নিজাম প্যালেস, ২য় এম এস ও বিল্ডিং, ৩য় তল, ২৩৪/৪, এ জে সি বোস রোড, কলকাতা-৭০০ ০২০-এর কাছে তাদের স্বার্থের ধরন এবং বিরোধিতা উল্লেখ করে হলফনামা সহ সমর্থিত আপত্তিসমূহ পাঠাতে পারেন তৎসহ নীচে বর্ণিত ঠিকানাতে এলএলপি-এর অফিসে পাঠাতে পারেন।

ওয়ান্ডারফুল ডিলার এলএলপি
প্রযত্নে বেদপ্রকাশ কান্দোই, ঘর নং ৫৫ ভূপেন্দ্র বোস অ্যাভিনিউ, ফ্ল্যাট ২ বি, ৩য় তল,
কলকাতা-৭০০ ০০৪
ওয়ান্ডারফুল ডিলার এল এল পি-এর পক্ষে
স্বাঃ/
প্রদীপকুমার আগরওয়াল
তারিখ: ০৬.১১.২০২০ মনোনীত অংশীদার
স্থান: কলকাতা **DPIN: 01461392**

প্রকাশ্য বিজ্ঞপ্তি
[লিমিটেড লাইবেলিটি পার্টনারশিপ রুলস ২০১৭, রুল ১৭ (৪) অনুযায়ী]

এলএলপি-এর রেজিস্টার্ড অফিস এক রাজ্য থেকে অন্য রাজ্যে স্থানান্তরের উদ্দেশ্যে সংবাদপত্রে বিজ্ঞাপন প্রকাশ

সম্পর্কিত: **নাইটেঙ্গল ভিনকম এলএলপি (LLPIN:AAT-8267)** যার রেজিস্টার্ড অফিস প্রযত্নে বেদপ্রকাশ কান্দোই, ঘর নং ৫৫, ভূপেন্দ্র বোস অ্যাভিনিউ, ফ্ল্যাট ২বি, ৩য় তল, কলকাতা-৭০০ ০০৪
জনসাধারণকে এতদ্দ্বারা বিজ্ঞপ্তি প্রদান করা হচ্ছে যে, এল এল পি লিমিটেড লাইবেলিটি পার্টনারশিপ অ্যাক্ট ২০০৮ সেকশন ১৩ (৩) অনুযায়ী তাদের রেজিস্টার্ড অফিস **'পশ্চিমবঙ্গ রাজ্য'** থেকে **'আসাম রাজ্যে'** স্থানান্তরের জন্য রেজিস্ট্রার-এর কাছে একটি আবেদন জমা করবার প্রস্তাব করেছেন।
এলএলপি-এর প্রস্তাবিত পরিবর্তনের ফলে স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশিত হওয়ার ২১ (একুশ) দিনের মধ্যে রেজিস্ট্রার অফ কোম্পানিজ নিজাম প্যালেস, ২য় এম এস ও বিল্ডিং, ৩য় তল, ২৩৪/৪, এ জে সি বোস রোড, কলকাতা-৭০০ ০২০-এর কাছে তাদের স্বার্থের ধরন এবং বিরোধিতা উল্লেখ করে হলফনামা সহ সমর্থিত আপত্তিসমূহ পাঠাতে পারেন তৎসহ নীচে বর্ণিত ঠিকানাতে এলএলপি-এর অফিসে পাঠাতে পারেন।

নাইটেঙ্গল ভিনকম এলএলপি

ভারত সরকার হইতে পঃ বঃ রাজ্যের পুরুলিয়া জেলার গ্রাম-মহুদা, পোঃ রুকনি, সম্প্রসারণ করিয়া বাৎসরিক পেলেট প্লান্ট মারফত গ্রাইনডিং ফেসিলিটি সহযোগে (২ x ০.৮৫ MTPA), স্পঞ্জ আয়রন প্লান্ট (১ x ৩৫০ TPD ক্লিন), 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 ইউটিলাইজিং ওয়েস্ট হিট হইতে প্রস্তাবিত স্পঞ্জ প্লান্ট) এবং প্রোডিউসার গ্যাস প্লান্ট (১২ x ৪০০০ Nm3/hr) উৎপাদন প্লান্ট স্থাপনে অনুমতি পাইয়াছি, মেমো নং. F. No. J-11011/758 / 2009-IA.II(I) তাং ০৫.১১.২০২০ আমরা সকলের সহযোগিতা কামনা করিতেছি।

ব্রাভো স্পঞ্জ আয়রন প্রাঃ লিঃ
Sd/-

ফর্ম নং- আই এন সি-২৬
কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪-এর রুল ৩০ অনুযায়ী
এক রাজ্য থেকে অন্য রাজ্যে কোম্পানির রেজিস্টার্ড অফিস পরিবর্তন উপলক্ষে সংবাদপত্রে বিজ্ঞাপন প্রকাশ
রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, কলকাতা সমীপে কোম্পানি আইন, ২০১৩-এর ১৩ ধারার (৪) উপধারা অনুসারে এবং কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪-এর রুল ৩০-এর সাব-রুল (৫) উপধারার রুজ (এ) অনুসারে

এবং

নিম্নোক্ত সম্পর্কে: **ইমেজ ক্রিয়েশন শাড়িস প্রাইভেট লিমিটেড (CIN: U17122WB2008PTC123209),** রেজিস্টার্ড অফিস: ৪/১/১বি, হরপ্রসাদ দে লেন, ২য় তল, ঢাকা পট্টির নিকটে, কলকাতা- ৭০০ ০০৭, পশ্চিমবঙ্গ

...আবেদনকারী
এতদ্দ্বারা জনসাধারণের প্রতি বিজ্ঞপ্তি জারি করা হচ্ছে যে, **'পশ্চিমবঙ্গ রাজ্য' থেকে 'গুজরাট রাজ্যে'** রেজিস্টার্ড অফিস স্থানান্তরের উদ্দেশ্যে **৬ অক্টোবর,** ২০২০ তারিখে অনুষ্ঠিত বিশেষ সাধারণ সভায় গৃহীত বিশেষ প্রস্তাব অনুযায়ী কোম্পানির সঙ্ঘস্মারকের রদবদলের অনুমোদন প্রার্থনা করে কোম্পানিজ অ্যাক্ট, ২০১৩-এর ১৩ ধারা অনুসারে কেন্দ্রীয় সরকার-এর কাছে সংশ্লিষ্ট কোম্পানি একটি আবেদন করার প্রস্তাব করেছে।
কোম্পানির রেজিস্টার্ড অফিসের প্রস্তাবিত পরিবর্তনের ফলে স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশের তারিখ থেকে ১৪ (চোদ্দো) দিনের মধ্যে **এমসিএ-২১ পোর্টাল (www.mca.gov.in)**-এ ইনভেস্টর কমপ্লেইন ফর্ম পূরণ করে অথবা রেজিস্টার্ড ডাকযোগে রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, ২৩৪/৪, আচার্য জগদীশ চন্দ্র বোস রোড, নিজাম প্যালেস, II এম এস ও বিল্ডিং, ৪র্থ তল, কলকাতা-৭০০ ০২০-এর কাছে তাঁর/তাঁদের (স্ত্রী/পুং) স্বার্থের ধরন এবং বিরোধিতার কারণ উল্লেখ করে একটি হলফনামা দ্বারা সমর্থিত আপত্তিসমূহ পাঠাতে পারেন, তৎসহ ওপরে বর্ণিত ঠিকানাতে অবস্থিত অফিসে, আবেদনকারী কোম্পানির কাছেও একটি কপি পাঠাতে পারেন। যার ঠিকানা- রেজিস্টার্ড অফিস- ৪/১/২বি, হরপ্রসাদ দে লেন, ২য় তল, ঢাকা পট্টির নিকটে, কলকাতা- ৭০০ ০০৭, পশ্চিমবঙ্গ

আবেদনকারী
ইমেজ ক্রিয়েশন শাড়িস প্রাইভেট লিমিটেড-এর পক্ষে
স্বাঃ মনোজ কুমার জৈন
তারিখ: ০৭.১১.২০২০ **ডিরেক্টর**
স্থান: কলকাতা **DIN: 01834584**

ফর্ম নং- আইএনসি-২৫এ
কেন্দ্রীয় সরকার, রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন,
কর্পোরেট বিষয়ক মন্ত্রক, কলকাতা সমীপে কোম্পানি আইন, ২০১৩, কোম্পানি আইন ২০১৩-এর ১৪ ধারা
এবং
কোম্পানিজ (ইনকর্পোরেশন) রুলস, ২০১৪-এর রুল ৪১ অনুসারে
বিষয়: **নটরাজ টেকনোসফট লিমিটেড,** রেজিস্টার্ড অফিস: **৫ এফ, এভারেস্ট, ৪৬/সি, চৌরঙ্গি রোড, কলকাতা- ৭০০ ০৭১, পশ্চিমবঙ্গ**

... আবেদনকারী
এতদ্দ্বারা জনসাধারণের প্রতি বিজ্ঞপ্তি জারি করা হচ্ছে যে, পাবলিক কোম্পানি থেকে প্রাইভেট কোম্পানিতে বদলের উদ্দেশ্যে ৩০ অক্টোবর, ২০২০ তারিখে বিশেষ সাধারণ সভায় গৃহীত বিশেষ প্রস্তাব অনুযায়ী কোম্পানির সঙ্ঘস্মারকের রদবদলের অনুমোদন প্রার্থনা করে কোম্পানিজ অ্যাক্ট ২০১৩-এর ১৪ ধারা অনুসারে কেন্দ্রীয় সরকার-এর কাছে সংশ্লিষ্ট কোম্পানি একটি আবেদন করার প্রস্তাব করেছে।
কোম্পানির রেজিস্টার্ড অফিসের প্রস্তাবিত স্ট্যাটাস পরিবর্তনের ফলে স্বার্থ ক্ষুণ্ণ হওয়ার সম্ভাবনা আছে এমন কোনও ব্যক্তি এই বিজ্ঞপ্তি প্রকাশের তারিখ থেকে চোদ্দো দিনের মধ্যে রিজিওনাল ডিরেক্টর, ইস্টার্ন রিজিয়ন, ২৩৪, এ জে সি বোস রোড, নিজাম প্যালেস, II এমএস ও বিল্ডিং, ৪র্থ তল, কলকাতা-৭০০০২০-এর কাছে তাঁর/তাঁদের (স্ত্রী/পুং) স্বার্থের ধরন এবং বিরোধিতার কারণ উল্লেখ করে একটি হলফনামা দ্বারা সমর্থিত আপত্তিসমূহ রেজিস্টার্ড ডাকযোগে পাঠাতে পারেন, তৎসহ নিচে বর্ণিত ঠিকানাতে অবস্থিত অফিসে, আবেদনকারী কোম্পানির কাছেও একটি কপি পাঠাতে

প্রযত্নে বেদপ্রকাশ কান্দোই, ঘর নং ৫৫ ভূপেন্দ্র বোস অ্যাভিনিউ, ফ্ল্যাট ২বি, ৩য় তল, কলকাতা-৭০০ ০০৪

নাইটেঙ্গল ভিনকম এল এল পি-এর পক্ষে
স্বাঃ/
ইশান্ত আগরওয়াল
মনোনীত অংশীদার
DPIN: 03482066

তারিখ: ০৬.১১.২০২০
স্থান: কলকাতা

পারেন।
রেজিস্টার্ড অফিসের ঠিকানা: ৫ এফ, এভারেস্ট, ৪৬/সি, চৌরঙ্গি রোড, কলকাতা- ৭০০ ০৭১, পশ্চিমবঙ্গ
আবেদনকারী: নটরাজ টেকনোসফট লিমিটেড-এর পক্ষে
স্বাঃ অনিল কুমার আগরওয়াল
ম্যানেজিং ডিরেক্টর
DIN: 00479628

তারিখ: ০৭.১১.২০২০
স্থান: কলকাতা

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 : Kachigam, 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.psllimited.com** and website of the stock exchanges i.e. **www.bseindia.com** and **www.nseindia.com**

For PSL LIMITED
Sd/-
NITIN JAIN
LIQUIDATOR

Place : NEW DELHI
Date : 06 Nov. 2020

DYNAMIC MICROSTEPPERS LIMITED

CIN: L45208MH1985PLC036261
Regd. Office: 506, Mathara Arcade, Above Axis Bank, Near Garware, Subhash Road,Vile Parle (East), Mumbai – 400 057.
Tel No.: 022-26842631 | **Fax No.:** 022-26843782
Website : www.dynamicmicrosteppers.com
Email id : dynamicmicrosteppers limited@gmail.com

NOTICE

Pursuant to Regulation 47 read with Regulation 29 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, 13" November, 2020 inter alia to consider, approve and take on record the un-audited Financial Results of the Company for quarter and half year ended on September, 30, 2020.

Further, in terms of the Company's Code of Conduct and SEBI (Prohibition of Insider Trading) Regulations, 2015, the trading window for dealing in securities of the Company by its 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 Intimation 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/-
Ashwin Shah
Director

Place: Mumbai
Date: 06.11.2020

TATA STEEL LIMITED

Registered Office: Bombay House, 24, Homi Mody Street, Fort, Mumbai - 400 001, India
Tel.: +91 22 6665 8282
Email: cosec@tatasteel.com Website: www.tatasteel.com
CIN: L27100MH1907PLC000260

NOTICE

A meeting of the Board of Directors of Tata Steel Limited (the 'Company') will be held on Friday, November 13, 2020, *inter alia*, to consider and take on record the audited Standalone and unaudited Consolidated financial results of the Company for the quarter and half year ended September 30, 2020.

The financial results will be made available on the website of the Company at www.tatasteel.com as well as on the website of the National Stock Exchange of India Limited at www.nseindia.com and BSE Limited at www.bseindia.com.

Tata Steel Limited
Sd/-
Parvatheesam Kanchinadham
Company Secretary &
Chief Legal Officer (Corporate & Compliance)

November 6, 2020
Mumbai

TATA STEEL

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:

1. The above financial results have been reviewed by the Audit Committee and approved by the Board of Directors at their respective meeting held on 6th November, 2020.
2. The above is an extract of the detailed format of Unaudited Financial Results filed with the Stock Exchanges under Regulation 33 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015. The full format of the Unaudited Financial Results are available on the website of the BSE Limited at their website www.bseindia.com and National Stock Exchange of India Limited at their website www.nseindia.com and on the website of the Company at www.mrvlindia.com

By Order of the Board of Directors
FOR **THE MANDHANA RETAIL VENTURES LIMITED**
Sd/-
PRIYAVRAT P. MANDHANA
EXECUTIVE DIRECTOR
DIN: 02446722

Mumbai
06th 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:

1. 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.
2. 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.
3. Members holding shares either in physical form or dematerialized form, as on the cut-off date i.e. Friday, 20th November, 2020 may cast their vote electronically on the Ordinary and Special businesses as set out in the Notice of the 85th AGM through electronic voting system of National Securities Depository Limited (NSDL) from a place other than venue of AGM ("remote E-Voting").
4. All the members are informed that:
   - I. The Ordinary and the Special businesses set out in the Notice of 85th AGM may be transacted through voting by electronic means, i.e. remote e-voting;
   - II. The remote e-voting shall commence on Friday, 27th November, 2020 at 9.00 a.m.;
   - III. The remote e-voting shall end on Sunday, 29th November, 2020 at 5.00 p.m.;
   - IV. The cut-off date for determining the eligibility to vote by electronic means or at the AGM is Friday, 20th November, 2020;
   - V. 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 rta@cbmsl.com. However, if a person is already registered with NSDL for e-voting then existing user ID and password can be used for casting vote;
   - VI. Members may note that: a) the remote e-voting module shall be disabled by NSDL after the aforesaid date and time for voting and once the vote on a resolution is cast by the member, the member shall not be allowed to change it subsequently; b) the facility for voting through ballot papers shall be made available at the AGM; c) the members who have cast their vote by remote e-voting facility may also attend the AGM but shall not be entitled to cast vote again; and d) a person whose name is recorded in the Register of Members and Register of Beneficial Owners as on the cut-off date i.e. Friday, 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;
   - VII. The notice of the AGM is available on the NSDL's website www.evoting.nsdl.com and on the Company's website www.jlmorison.com/corporate;
   - VIII. In case of queries, members may refer to the Frequently Asked Questions (FAQs) for members and e-voting user manual for members at the Help Section of www.evoting.nsdl.com or call on helpdesk no: 1800222990 or contact Ms. Pallavi Mhatre Manager at telephone no. 022-24994545 who will also address the grievances connected with the voting by electronic means. Members may also write to the Company at the email ID investors@jlmorison.com or the Registered Office Address as mentioned above.
5. Pursuant to the provisions of Section 91 of the Companies Act, 2013 and Regulation 42 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Register of Members and the Share Transfer books of the Company will remain closed from Saturday, 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

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 30 September 2020 (Unaudited)	Half year ended 30 September 2019 (Unaudited)	Year ended 31 March 2020 (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 - Diluted	(3.82) (3.82)	0.23 0.23	(0.46) (0.46)
13.	Capital redemption reserve (refer note 5)	Not Applicable	Not Applicable	Not Applicable
14.	Debenture redemption reserve (refer note 5)	Not Applicable	Not Applicable	Not Applicable
15.	Debt service coverage ratio (refer note 5)	Not Applicable	Not Applicable	Not Applicable
16.	Interest service coverage ratio (refer note 5)	Not Applicable	Not Applicable	Not Applicable

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

Note:

1) In accordance with Regulation 52 of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Company has published unaudited financial results for the six month ended 30 September 2020. The above unaudited financial results were reviewed by the Audit Committee at its meeting held on 06 November 2020 and approved by the Board of Directors at its meeting held on 06 November 2020
2) 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).
3) 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
4) Previous year/period figures have been regrouped/rearranged, wherever considered necessary, to confirm to the classification/ disclosure adopted in the current year.
5) 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

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

Notes :
The key standalone financial information of the Company is as under:

(₹ in Lakhs)

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	9,088.10	14,725.47	15,255.97	28,296.23	56,309.09
2.	Net Profit/(Loss) for the period before Tax after Exceptional Items	8.99	954.34	(1,723.00)	1,634.97	3,196.54
3.	Net Profit/(Loss) for the period after Tax	35.41	584.75	(1,119.53)	1,026.24	2,042.83

The above is an extract of the detailed format of unaudited financial results filed with the Stock exchanges under Regulation 33 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015. The full format of the financial results (Consolidated/ Standalone) are available on the Stock Exchange websites. (National Stock Exchange of India Limited (www.nseindia.com) & BSE Limited (www.bseindia.com) and on the company's website (www.artemishospitals.com).

The above results for the quarter and half year ended were reviewed by the Audit Committee meeting held on November 05, 2020 and approved by the Board of Directors meeting held on November 05, 2020. The Statutory Auditors have expressed an unmodified opinion on the aforesaid results.

The above financial results have been prepared in accordance with the companies (Indian Accounting Standards) Rules, 2015 (Ind AS), as prescribed under Section 133 of the Companies Act 2013, and the other recognised accounting practices and policies to the extent applicable.

For and on behalf of the Board of Directors
of Artemis Medicare Services Limited

Place : New Delhi
Dated : November 5th, 2020

Sd/-
Onkar S. Kanwar
Chairman & Director

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

SCI Navratna Company (ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified)

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)

a) The above is an extract of the detailed format of Quarterly/Half yearly Financial Results filed with the Stock Exchanges under Regulation 33 of SEBI (Listing and Other Disclosure Requirements) Regulations, 2015. The Full format of the Quarterly/Half yearly Financial Results are available on the Stock Exchange websites.(**www.bseindia.com** and **www.nseindia.com**) Company's website : **www.shipindia.com**
b) Standalone & Consolidated Financial results for the quarter and half year ended 30th September 2020 are in compliance with Indian Accounting Standards (Ind-AS).
c) The above results have been reviewed by the Audit Committee and approved by the Board of Directors at their 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.

Annexure - 18

PROJECT DETAILS AS PER CTE/CTO APPLICATION

Name Of Occupier :	DEEPAK KUMAR AGARWAL
Industry Id :	WB0291697797
Industry Name :	BRAVO SPONGE IRON PVT. LTD.
Industry Address :	Vill-Mahuda, PO-Rukni, PS-Para, Dist-Purulia (WB)-723145
District :	Purulia
State :	West Bengal
Category :	RED
Industry Type :	Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units
Occupier Email :	cmdsipl1@gmail.com
Occupier Mobile :	9233331111
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/125425/2015
EC Grant Date :	2020-11-05
EC File Number :	J-11011/758/2009-IA-II I
Authorty :	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/125425/2015
Registered Email Id:	cmdsipl1@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 - 19

FORMAT NO. ENV/FM/40

TEST REPORT

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.	Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mahuda, P.O. – Rukni, P.S. – Para, Purulia – 723145	Sampling Date	:	25.02.2023
			Period of Analysis	:	27.02.2023 – 06.03.2023
			Date of Issue	:	08.03.2023

Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	:	Surface Water	
Location	:	Pond at Mahuda Village	Sample Condition	:	Sealed	Sample ID No.	:	ENV/1002A/Feb./W/M	
Report No.	:	ENV/1002A/Feb./TR(W)/M/22-23							

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	APHA 23rd Ed., 4500 H^+B : 2017	-	7.20
2.	Total Suspended Solids	APHA 23rd Ed., 2540 D : 2017	mg/l	30.0
3.	Total Dissolved Solids	IS 3025 (Part 16) : 1984 : 2014	mg/l	310.0
4.	Dissolved Oxygen	APHA 23rd Ed., 4500 – OC : 2017	mg/l	6.20
5.	COD	APHA 23rd Ed., 5220 B/C/D : 2017	mg/l	40.0
6.	BOD [5 Day's at 20°C]	APHA 23rd Ed., 5210 B : 2017	mg/l	7.0
7.	Oil & Grease	APHA 23rd Ed., 5520 B/D/ : 2017	mg/l	<1.0
8.	Residual Chlorine	APHA 23rd Ed., Cl-B : 2017	mg/l	<0.04
9.	Chloride	APHA 23rd Ed., 4500 Cl-B/D : 2017	mg/l	13.16
10.	Iron	APHA 23rd Ed., 3111 B : 2017	mg/l	0.12
11.	Arsenic	APHA 23rd Ed., 3114 B : 2017	mg/l	<0.01
12.	Lead	APHA 23rd Ed., 3111 B : 2017	mg/l	<0.005
13.	Mercury	APHA 23rd Ed., 3112 B : 2017	mg/l	<0.001
14.	Copper	APHA 23rd Ed., 3111 B : 2017	mg/l	<0.04
15.	Dissolve Phosphate	APHA 23rd Ed., 4500-P D/F : 2017	mg/l	0.82
16.	Zinc	APHA 23rd Ed., 3111 B : 2017	mg/l	0.68
17.	Total Chromium	APHA 23rd 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 :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

<End of Report>

Annexure - 20

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	:	25.02.2023
4.	Report No.	:	Env/1002C/S/M(i)/22-23
5.	Reporting date	:	10.03.2023
6.	Type of sample	:	Bed Ash
7.	Location	:	Near AFBC Boiler

PARAMETERS (mg/lt.)

Zn.	Cu	Ni	Pb	Cd
7.85	1.10	1.30	1.70	<0.002

Remarks : Result relates only to the sample tested.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By :

Dr. AJOY PAUL
Quality Manager

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	:	25.02.2023
4.	Report No.	:	Env/1002C/S/M(ii)/22-23
5.	Reporting date	:	10.03.2023
6.	Type of sample	:	SMS Slag
7.	Location	:	Near SMS Division

PARAMETERS (mg/lt.)					
Zn.	**Cr.**	**Cu**	**Ni**	**Pb**	**Cd**
3.50	1.20	2.80	1.16	1.10	<0.002

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By :

Dr. AJOY PAUL
Quality Manager

<End of Report>