

ELOQUENT STEEL PRIVATE LIMITED

CIN: U51909WB2012PTC185734 | GSTIN: 19AADCE1766F1ZN | PAN: AADCE1766F | State: West Bengal | State Code: 19

Ref: - ESPL/SMC/APRIL-2023 TO SEPT-2023

Date: 29.12.2023

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

SUB: Six Monthly (April-2023 to Sept-2023) Compliance to Environmental Clearance of M/s Eloquent Steel Pvt. Limited, Vill-Nakrajoria, PO & PS-Salanpur, Dist.-Paschim Bardhaman-713357, (WB)

EC Reference: F. No. J-11011/188/2011-IA.II(I) dated 16th March, 2023

Respected Ma'am,

With reference to the above, we are submitting herewith the six-monthly compliance report (Period April-2023 to Sept-2023) for M/s Eloquent Steel Pvt. Limited, Vill-Nakrajoria, PO & PS-Salanpur, Dist.-Paschim Bardhaman (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 consideration.

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

Kindly acknowledge our submission.

With regards.

Yours Faithfully,

For Eloquent Steel Pvt. Ltd. Authorized tee 50 Encl: as above Salanpu

Copy to:

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

# **M/s ELOQUENT STEEL PVT. LIMITED**

#### COMPLIANCE STATUS OF ENVIRONMENTAL CLEARANCE

MoEF&CC. F. No.: J-11011/188/2011-IA.II(I) dated 16th March, 2023

COMPLIANCE PERIOD:

APRIL-2023 to SEPTEMBER -2023

# **PROJECT LOCATION:**

Vill- Nakrajoria, PO&PS-Salanpur, Dist- Paschim Bardhman (WB)-713357



Six Monthly Compliance Report (April 2023 – September, 2023)

# SIX MONTHLY COMPLIANCE REPORT

Name of the Project	:	M/S ELOQUENT STEEL PVT. LTD. Village: Nakrajoria, P.O.: Salanpur, Dist Paschim Bardhaman, West Bengal.
Proposal No.	:	F. No.: J-11011/188/2011-IA.II(I)dated 16 <sup>th</sup> March, 2023
Period of Compliance Report	:	April 2023 to September 2023.

	CONDITIONS	COMPLIANCE STATUS
S.No.	CONDITIONS	
A. i.	SPECIFIC CONDITIONS: - The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the empired the implemented.	Noted. It is being/shall be complied with project Implementation.
ii.	The project shall of anytes and the project shall of any technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.	Noted. The company has taken into considerations to adopt more carbon efficient technologies available in the market at planning stage for integrations of new equipment. Carbon sequestration resources like dens plantation and its proper maintenance being/shall be done as the plants are good receptor of CO <sub>2</sub> from atmosphere.
111.	Barakar river and Maithon Dam exists adjacent to the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.	Recycle & reuse practice being/shall be ensured to maintain the Zero Liquid Discharge. No industrial waste water is allowed to discharge outside the factory premises. Therefore, there shall be no chance of adverse due to industrial effluent. Drainage system of the company is under renovation so as to maintain the natural flow parameters and to control the soil erosion.
iv.	Performance test shall be conducted on all pollution control systems every half-yearly and report shall be submitted to Regional Office of the MoEF&CC.	It is being/shall be complied. NABL accredited third party monitoring being conducted periodically to evaluate the emission level o pollution control systems i.e. bag filters. It is also being monitored by West Bengal Pollution Control Board (WBPCB) team time to time. Latest stack monitoring reports are enclosed as <b>Annexure-1</b>
v.	<ul> <li>Solid waste utilization</li> <li>a) PP shall install a fly ash brick making plant.</li> <li>b) PP shall recycle/reuse 100% solid wast generated in the plant.</li> </ul>	<ul> <li>Proper handling and storage of solid waste being done</li> <li>a) No fly ash being/shall be generated from the plant therefore fly ash brick making plant is proposed.</li> <li>b) Recycle and reuse of solid waste being/shall be ensured with possible efforts. Ferry program (Fe-Mn) Slag being used for the proposed of the propo</li></ul>

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	Six Monthly Compliance Report	M/s Eloquent Steel Pvt. Ltd.
	(April 2023 - September, 2023)	
	<ul> <li>c) Used refractories shall be recycled as far as possible</li> </ul>	<ul><li>Silico Manganese (Si-Mn), and Silico Manganese slag being used for land filling and road construction.</li><li>c) Used refractories shall be recycled as far as possible.</li></ul>
vi.	Particulate matter emission from stacks shall be less than 30 mg/Nm <sup>3</sup> . Action plan in this regard shall be strictly implemented.	Noted. It shall be compiled with implementation of new projects. Capacity of pollution control devices to be installed shall be as to control emission level well within 30 mg/Nm3. Pollution control devices of existing project are already been installed and operated efferently complying with standards set West Bengal Pollution Control Board. Latest stack monitoring reports are attached as <b>Annexure-1</b>
vii.	85-90 % rolling shall be done by direct hot charging. Balance 10-15 % may be done through RHF using LDO as fuel.	Noted. It shall be complied as per direction.
viii.	The water requirement of 2140 KLD will be sourced from Maithon Reservoir. GW abstraction is not permitted.	Noted & It shall be complied. Water requirement being / well be met from DVC. No ground water being/ will be abstracted. Copy of water agreement is enclose as Annexure-2
ix.	The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.	It is being complied. Rain water harvesting pond already been developed to ensure maximum rain water collection and being used to reduce water needs dependence from out side source. Rain water harvesting pond Photograph are attached as <b>Annexure-3</b> All possible attempts shall be made to ensure optimal rain water harvesting & use of such water to reduce requirements from outside.
х.	Dendua (0.03 Km) and Salanpur (1.4 Km) villages are in the vicinity of the project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include these locations in its environmental monitoring programme.	Noted and it shall be complied.
xi.	As committed by the PP to adopt Nakrajoria Village under Dendua Village Panchayat, project proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.	Company will ensure to complete its commitment made for the village. Road side plantation has been started in the monsoon season. Renovation of village pond at Nakrajoria has been stared and other activities shall also be done with time bound program for development of the Nakrajoria village.
xii.	SAFs shall have 4 <sup>th</sup> hole extraction system for fume pollution control.	It is complied.
xiii.	Fe-Cr slag shall be subjected to TCLP to finalize if it could be used for construction or should be sent to TSDF	Noted and it shall be complied, Latest slag TCLP analysis report are enclosed as Annexure-4
xiv.	Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.	Noted. It has been installed.

(April 2023 - September, 2023) As per E-Waste Management & handling Rules 2016 it A proper action plan must be implemented to XV. dispose of the electronic waste generated in the is being complied. industry. Company has achieved the desired plantation target of Three tier Green Belt shall be developed in at least xvi. 33%. Total plant area is 9.089 Hectare. Based on this 33% in a time frame of one year with native species company has to develop 3.00 Ha. green belt. Approx. all along the periphery of the project site of 7800 plants of different type of indigenous species have adequate width and tree density shall not be less been planted so far. Selection of species done on the than 2500 per ha. Survival rate of green belt basis of recommendation of DFO as well as the species developed shall be monitored on periodic basis to found suitably growing in local areas. Some ensure that damaged plants are replaced with new photographs of green belt are attached as Annexure 5. plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC. Paving and concreting and greening of the project area Greening and Paving shall be implemented in the xvii. has been started to arrest soil erosion and dust pollution plant area to arrest soil erosion and dust pollution from exposed soil surface. Annexure-6. from exposed soil surface. Recycle and reuse practice has been adapted for The proposed project shall be designed as "Zero xviii. industrial waste water. No industrial effluent being Liquid Discharge" Plant. ETP shall be installed and discharged outside the factory premises. For domestic there shall be no discharge of effluent from the sewage effluent treatment septic tank followed by soak plant. Domestic effluent shall be treated in Sewage pit facilities are provided. STP shall be installed for the Treatment Plant of required capacity. As treatment of domestic waste water and treated water committed, suitable measures shall be adopted for shall be re-used for greenbelt development and sewage water handling to ensure no contamination plantation and dust suppression. Effluent analysis report of any kind of water body. is enclosed as Annexure-7 Impervious flooring of stockyard shall be ensured with All stockyards shall be having impervious flooring xix. garland drain as per direction so as to trap the run off and shall be equipped with water spray system for materials. dust suppression. Stock yards shall also have However raw material like coal is kept under the shed provision of garland drains and catch pits to trap and those kept outside under open sky being covered run off material. Action plan submitted in the under tarpaulin. Water sprinkling system is provided for EIA/EMP Report shall be strictly implemented. dust suppression. Noted. It is being complied No parking on road side for any vehicle pertaining XX. to the plant. Proper arrangement for vehicle parking within the plant will be made All the commitments made to the public during the Noted and shall be complied with. xxi. Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC. It is being complied. The Plastic Waste Management Rules 2016, interxxii. Single used is completely banned inside the plant alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. premises. Our EHS personnel are regularly creating awareness In this regard, CPCB has issued a direction to all among people working within the factory premises to Control Boards State Pollution the avoid the single use plastic items. (SPCBs)/Pollution Control Committees (PCCs) on Further campaigning against SUP shall be conducted for 30/06/2022 to ensure the compliance of more effective compliance of guidelines and Notification published by Ministry on 12/08/2021. notification date 12/08/2021 of Hon'ble The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technicalguidelines-3/. All the project proponents are hereby

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M/s Eloquent Steel Pvt. Ltd.

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	requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to	
	this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.	
xxiii.	The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.	Proper air pollution control device (APCDs) like bag filters, dust extraction system water sprinklers, are/shall be provided to maintain clean air environment. Adequate no. of water sprinklers are provided in the project area and movable water tanker is also deployed for suppression of fugitive dust emission due to vehicular movement on roads inside the plant and surrounding of the plant area. During transportation of raw material vehicles being/will be covered properly by the tarpaulin for control of fugitive dust emission.
B	6. General Conditions	
I. Stat	tutory compliance:	NT + 1
•	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. After getting the Environmental clearance ESPL has obtained the Consent to establish (CTE) from waste Bengal pollution control Board (WBPCB). Project activities for installation of expansion project has been started. Existing project of SAF is already under operation with valid CTO obtained from WBPCB. Copies of CTE and CTO is attached as Annexure-8
II. Ai	r quality monitoring and preservation	
i.	The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31 <sup>st</sup> March 2012 (Integrated iron & Steel) as amended from time to time and 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.	<ul> <li>24x7 Online Continuous Emission Monitoring System (OCEMS) with all major stacks have been installed and connected to CPCB portal to monitor the air emission. Stack emission status also being monitored periodically through NABL accredited laboratory to evaluated emission level.</li> <li>Ambient Air Quality Monitoring (AAQM) being done periodically through NABL accredited agency.</li> <li>Latest Stack monitoring &amp; Ambient Air Quality Monitoring reports are attached as Annexure-1 &amp; 9.</li> </ul>
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 Emission monitoring is being done through NABL accredited laboratories. Latest Work zone monitoring report are enclosed as Annexure -10.
iii.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources,	Air pollution control devices i.e. bag filters along with dust extraction system and water sprink in sector for effective dust suppression have been istalled and efficiently operated to control emission along the filter

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	so as to comply prescribed stack emission and fugitive emission standards.	within the norms. Water sprinkling being done through water tanker to control the fugitive emission due to vehicular movements. Third party monitoring by NABL accredited laboratory being conducted periodically to evaluate the emission levels. Latest Stack monitoring report & fugitive air emission report is enclosed as <b>Annexure-1 &amp; 10</b>
iv.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Being / Shall be complied. Functioning of bag filters being monitored by suitably skilled manpower and observations noticed being promptly attended. Leakage detection and mechanized bag cleaning facilities shall also be provided for upcoming units of expansion projects.
v.	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning. devices in the process after briquetting/ agglomeration	It is being complied. To ensure optimum use of raw material & minimal solid waste generation, recycle & reuse practice has already been adopted. The briquetting plant has been installed and ready to operate.
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 complied. Proper covered transportation of raw materials being/will be done to prevent spillage and dust generation.
vii.	The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.	Fume extraction system has been installed at melting furnace attached with spark arrester and bag filter connected with 30-meter stack height.
viii.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	Ventilation for proper air circulation has been provided in such areas and shall also be provided for adequate air changes for all tunnels, motor houses, Oil Cellars with upcoming projects facilities
III. V	Vater quality monitoring and preservation	
L	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31 <sup>st</sup> March 2012 (Integrated iron & Steel) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	It shall be complied. Recycle and reuse practice has been adapted for industrial waste water. No industrial effluent being discharged outside the factory premises. For domestic sewage effluent treatment septic tank followed by soak pit facilities are provided. Last effluent monitoring report analysed by NABL accredited laboratory is enclosed as <b>Annexure-7</b> .
II.	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Ground water quality being monitored by NABL accredited laboratory. No ground water being extracted by the company, hence there is no scope of affecting the ground water level due to industrial activities. Latest ground water monitoring report, same care from the village is attached as Annexure

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III.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the	For the treatment of domestic sewage effluent septic tank followed by soak pit facility has been provided.
	prescribed standards.	waste water and treated water shall be re-used for green belt development.
iv.	The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31 <sup>st</sup> March 2012 (applicable to IF/EAF) as amended from time to time.	Noted. It shall be complied upcoming 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	Being complied. Raw Material being kept under the shed iron stock pills are being covered under tarpaulin. Gar land drains shall be implemented upcoming project.
IV N	Joise monitoring and prevention	[ compression of complete
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 / shall complied. Noise quality monitoring being done on regular basis as directives of noise pollution (regulation and control) Rules, 2000. Latest Ambient & Work Zone Noise monitoring reports are enclosed as <b>Annexure-12 &amp; 13</b> .
V. E	nergy 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.	It is being/shall be complied. Offices inside the has been equipped with LED lights. For the minimization of electric energy consumption company has proposed the installation of solar panel.
VI. V	Vaste management	
1.	Used refractories shall be recycled.	Noted. Efforts shall be done to recycle the refractories as far as possible.
11.	Kitchen waste shall be composted or converted to biogas for further use.	It is being complied. Kitchen waste from canteen is being composted and be used in green belt as a bio-fertilizer.
VII.	Green Belt	
i.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.	It shall be complied. Carbon footprint & carbon sequestration report of the project is already been prepared and submitted to MoEF & CC. Attached as <b>Annexure-14</b> . Continues efforts being & shall be done to reduce the carbon footprints.
11.	Project proponent shall submit a study report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.	Noted. It shall be tried to be implemented with best possible efforts and technologies available in the market. Offices inside the has been equipped with LED lights. For the minimization of electric energy consumption company has proposed the installation of solar panel as renewable energy.

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Public hearing and Human health issues	
Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	It is being complied. Risk & Disaster Management plan of the company is attached as Annexure-15.
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 Eastern 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 shall be carried out as per direction.
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. Some photographs of employee health check-up program is attached as <b>Annexure-16</b>
The Unit is using quartzite and coke and sought EC for expansion for alloy production. Therefore, the industry is recommended to measure silica and coal dust exposures using personal and area air samplers in process plants and to be compared with Permissible exposure limits as per Indian Factories Act, 1948. Report to be submitted to the IRO, MoEFCC.	Personnel's working for the production of Silico Manganese and Ferro Silicon being/shall be provided the PPEs like dust masks eyes safety goggles as protective measures. It shall be monitored as per direction and Indian Factories Act.
nvironment Management	CEP activities for th
provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.	benefit of local community i.e. maintenance of school building, study material distribution to school students foodstuffs and clothing to underprivileged people, spor organization for children/youths etc. It shall be mor effectively implemented to comply the directions of socio -economic development for the benefit of loca community.
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. ESPL has implemented standard operating procedure to look into any infringement/ deviation/violation of environmental/ forest/wildlife norms/ conditions. ESPL has also the Hierarchical system/ Administrative order to deal with environmental issues and compliance of EC conditions. There is a reporting system in place deal with any non-compliance/ violation of environmental norms as follows: Board of Director
	<ul> <li>The unit is using quartzite and coke and sought EC for expansion for alloy production. Therefore, the industry is recommended to measure silica and coke and sought EC for expansion for alloy production. Therefore, the industry is recommended to measure silica and coke and and dust exposure suing personal and area air samplers in process plants and to be compared with Permissible exposure limits as per Indian Factories Act, 1948. Report to be submitted to the IRO, MoEFCC.</li> <li><b>introment Management</b></li> <li>The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.</li> <li>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 a defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The copy of the board resolution in this regard shall be submitted to the MOEF&amp;CC as a part of sixmonthly report.</li> </ul>

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An environmental cell has been set up under the A separate Environmental Cell both at the project iii. supervision of senior executive to look after the day to and company head quarter level, with qualified day activities pertaining to environment & pollution personnel shall be set up under the control of senior control issues of the company. Executive, who will directly to the head of the Hierarchical system/administrative order of the organization. environmental cell is follows-CMO ED - CORPORATE Unit Head Head Environment Management Cell Operation Head Environment Health Safety. Env. Officer / Enge Medical Officer Safety Officer X. Miscellaneous The project proponent shall make public the It has been complied i. Advertisement in newspaper has been done. environmental clearance granted for their project along with the environmental conditions and Newspaper cuttings are attached as Annexure-17 safeguards at their cost by prominently advertising Granted EC copy has been available as 'Environmental it at least in two local newspapers of the District or Orders' on the company website permanently. State, of which one shall be in the vernacular language within seven days and in addition this http://shakambhariispat.com/environmental-orders shall also be displayed in the project proponent's website permanently. Complied. The copies of the environmental clearance shall be ii. Attached as Annexure-18 submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt. The project proponent shall upload the status of Noted iii. compliance of the stipulated environment clearance It is being/shall be complied. conditions, including results of monitored data on http://shakambhariispat.com/environmental-compliance their website and update the same on half-yearly basis. It is being/shall be complied. The project proponent shall monitor the criteria iv. Latest stack monitoring reports & ambient air pollutants level namely; PM10, SO2, NOx (ambient monitoring report for criteria pollutants level namely; levels as well as stack emissions) or critical sectoral PM10, S02, NOx being displayed at main gate of the plant parameters, indicated for the projects and display and it shall also be uploaded in company website the same at a convenient location for disclosure to (http://shakambhariispat.com/environmental-compliance) the public and put on the website of the company. under half yearly compliance report as per direction Environmental display data board attached as Annexure -19. It shall be complied. The project proponent shall submit six-monthly ٧. reports on the status of the compliance of the stipulated environmental conditions on the website

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	stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	
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 for FY 2022-23 has already been submitted to SPCB with a copy to MoEFCC Regional Office Kolkata and also uploaded on company's website.
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.	The financial closure of the project is under process with consortium bankers and shall be communicated once received. After obtaining CTE(NOC) vide no. NO 180715 dated 08.05.2023 from WBPCB company has started the project activities w.e.f. 09.05.2023. Copy of CTE attached as Annexure-8
vili.	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. It shall be complied. 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 are under implementation and shall be with the implementation of the projects.
ix.	The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.	Noted. It shall be complied. EC has been uploaded on company's website http://shakambhariispat.com/environmental-orders
х.	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.
xi.	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 complied.



# ANNEXURE- 1 (Stack Emission Monitoring report.)





FORMAT NO : ENV/FM/38

Name of the Industry	:	Eloquent Steel Pvt. Ltd.				Type of Industry			' :	Ferro Allo	y ai	nd SMS Unit
Address	:	Vill. – Nakrajor PaschimBardha	a, P.O. + P.S. – Salanpur, Dist. – man			Sampling Date Period of Analysis				13.09.2023 16.09.2023 - 19.09.2023		
Sampling Plan & Procedure		ENV/SOP/01	Deviatio	n froi	m the Sampling Method a	and Plan	:	No	Type	of Sample	:	Stack Emission
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/65/Sep./A/I	Repor	t No		ENV/	65/Sep./TR	(A)	/I/23-24

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

Stack Attached to	:	SEAF (No.1) (7.5 MVA)			×
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	36.0
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	1.50
Capacity	•	7.5 MVA Height of sampling port : 30.0 (mtr.) (from G.L.)			
Emission Due to	1	Reduction of Mn-Ore	ad a set of the set of		
Fuel Used		Electrically Operated	Permanent Platform & La	ddei	r : Yes
Working Fuel Consumption	:	Nil			nî.
Pollution Control Device	:	Bag Filter	the second se		

#### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	°C	IS : 11255 (Part 1)		89.0
2.	Barometric Pressure	mm of Hg.			755.0
3.	Velocity of Gas flow	m/s	IS : 11255 (Part 3)	:	9.76
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS : 11255 (Part III)		57709.06
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) : 2019	:	110.43
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 : 2019	8	1.8
7.	Concentration of CO	% (v/v)	IS 13270 : 2019		<1.0
8.	Concentration of	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D		23.45
	Particulate Matter		3685M-98 (reapproved 2005) : Sec. 11		
		14. Inc.	(Vol.11.07): 2017		

Remarks : Result relates only to the sample tested.

**Reviewed By :** 

Indrawi Blattacharyya

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL Quality Manager

H.O.	1	63/B, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792891/ 25497490 = Fax : 033 25299141
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E-mail	1	info@envirocheck.in / envirocheck50@gmail.com = Website : www.envirocheck.in
Branch Office	1	Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi
Overseas	1	UAE = Qatar = Netherlands





FORMAT NO : ENV/FM/38

Name of the Industry	:	Eloquent Steel	Pvt. Ltd.	/t. Ltd.			Type of Industry			Ferro Allo	y and	l SMS Unit
Address	:	Vill. – Nakrajoi	ia, P.O. + F	0. + P.S. – Salanpur, Dist. –			ing	Date	:	13.09.202	13.09.2023	
	PaschimBardhaman Period of Analysis		sis   :   16.09.2023 - 19.09.2023			9.09.2023						
						Date o	of Iss	sue	:	21.09.202	3	
Sampling Plan & Procedure		ENV/SOP/01	Deviatio	n fro	om the Sampling Method an	nd Plan	:	No Type of Sample :		Stack Emission		
Sample Condition	:	Sealed Samp	le ID No.	:	ENV/65/Sep./A/II	Repor	t No	. :	: ENV/65/Sep./TR(A)/II/23-24			

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

Stack Attached to	:	SEAF (No.2) (7.5 MVA)	in the second		
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	36.0
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	1.6
Capacity	: 7.5 MVA Height of sampling p (mtr.) (from G.L.)			:	30.0
Emission Due to	1	Reduction of Mn-Ore			
Fuel Used	8	Electrically Operated	Permanent Platform & La	ddei	: Yes
Working Fuel Consumption	:	Nil	All Marsh		
Pollution Control Device	:	Bag Filter			

#### B. RESULTS

SL. NO	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	°C	IS : 11255 (Part 1)	:	95.0
2.	Barometric Pressure	mm of Hg.		:	755.0
3.	Velocity of Gas flow	m/s	IS : 11255 (Part 3)	- 1:	9.84
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS : 11255 (Part III)	:	57222.85
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) : 2019	:	161.88
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 : 2019	:	2.0
7.	Concentration of CO	% (v/v)	IS 13270 : 2019	: "	<1.0
8.	Concentration of	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D	:	25.41
	Particulate Matter		3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017		

Remarks : Result relates only to the sample tested.

**Reviewed By :** 

Indrawi Blattacharypa

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL Quality Manager

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

 Overseas
 : UAE = Qatar = Netherlands





FORMAT NO : ENV/FM/38

Name of the Industry	:	Eloquent Stee	Pvt. Ltd.	rt. Ltd.				e of Industry		Ferro Allo	y ai	nd SMS Unit
Address	:	Vill. – Nakrajo PaschimBardl	ria, P.O. + P aman	1.0. + P.S. – Salanpur, Dist. – n			Sampling Date Period of Analysis			: 13.09.2023 s : 16.09.2023 - 19.0		
						Date o	of Iss	sue	:	21.09.202	3	
Sampling Plan & Procedure	:	ENV/SOP/01	Deviatio	n fro	om the Sampling Method a	d and Plan : No Type of Sample		of Sample	:	Stack Emission		
Sample Condition		Sealed Sam	ole ID No.	:	ENV/65/Sep./A/III	Repor	't No	. :	ENV	65/Sep./TR	(A)	/III/23-24

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

Stack Attached to	:	SEAF (No.3) (7.5 MVA)			5	
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	36.0	
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	1.6	
Capacity	:	7.5 MVA	Height of sampling port (mtr.) (from G.L.)			
Emission Due to	:	Reduction of Mn-Ore		- X		
Fuel Used	:	Electrically Operated	Permanent Platform & La	dder	r :	Yes
Working Fuel Consumption	:	Nil	Les Martin Las			
Pollution Control Device	:	Bag Filter				

#### **B. RESULTS**

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	°C	IS : 11255 (Part 1)	:	84.0
2.	Barometric Pressure	mm of Hg.		:	755.0
3.	Velocity of Gas flow	m/s	IS : 11255 (Part 3)	:	9.70
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS : 11255 (Part III)	:	58157.57
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) : 2019	:	146.46
6.	Concentration of CO2	% (v/v)	IS 13270 : 2019		1.6
7.	Concentration of CO	% (v/v)	IS 13270 : 2019	:	<1.0
8.	Concentration of	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D	:	28.38
	Particulate Matter		3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017		

Remarks : Result relates only to the sample tested.

**Reviewed By :** 

Indrawi Blattacharyja

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

**Authorised Signatory :** 

Dr. AJOY PAUL Quality Manager

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 Overseas
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FORMAT NO : ENV/FM/38

Name of the Industry	:	Eloquent Stee	Pvt. Ltd.	't. Ltd.			Type of Industry			Ferro Allo	y ai	nd SMS Unit	
Address	:	Vill. – Nakrajo PaschimBardł	ria, P.O. + F aman	9.0. + P.S. – Salanpur, Dist. – n			Sampling Date Period of Analysi			13.09.2023 16.09.2023 - 19.09.2023			
						Date of	f Iss	sue	:	21.09.202	3		
Sampling Plan & Procedure		ENV/SOP/01	Deviatio	Deviation from the Sampling Method and Plan : No Ty		Туре	of Sample	199	Stack Emission				
Sample Condition		Sealed Sam	ole ID No.	1	ENV/65/Sep./A/IV	Report No. : ENV/65/Sep./TR(A)/IV/2			)/IV/23-24				

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

Stack Attached to	:	SEAF (No.4) (5.5 MVA)	and the state of the		<i>n</i> -
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)		36.0
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	2.0
Capacity	•	5.5 MVA	Height of sampling port (mtr.) (from G.L.)	30.0	
Emission Due to	1	Reduction of Mn-Ore			
Fuel Used		Electrically Operated	Permanent Platform & La	ddei	: Yes
Working Fuel Consumption	:	Nil	And the second s		
Pollution Control Device	:	Bag Filter			

#### **B. RESULTS**

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	°C	IS : 11255 (Part 1)	:	81.0
2.	Barometric Pressure	mm of Hg.		5 :	755.0
3.	Velocity of Gas flow	m/s	IS : 11255 (Part 3)	:	9.65
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS : 11255 (Part III)		91152.02
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) : 2019	:	136.78
6.	Concentration of CO2	% (v/v)	IS 13270 : 2019	:	2.0
7.	Concentration of CO	% (v/v)	IS 13270 : 2019	:	<1.0
8.	Concentration of	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D	:	24.88
	Particulate Matter		3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017		

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrawi Blattacharypa

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL Quality Manager

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# ANNEXURE- 2 (Copy of water agreement)

# DAMODAR VALLEY CORPORATION



# AGREEMENT

#### BETWEEN

### DAMODAR VALLEY CORPORATION AND

ELOQUENT STEEL PRIVATE LIMITED For Supply of RAW WATER

> INDUSTRIAL PURPOSE AT SARKURI

> > FROM

Maithon Reservoir FOR INDUSTRIAL (USES)

Allocated Quantity: 0.49 (Zero Point Four Nine) MGD

e Engineer (C) Execu Water, Tariff Cell RO'S Office, DVC, Maithon



### পশ্চিমবঙ্গ पश्चिम बंगाल WEST BENGAL

100

AF 511401

# AGREEMENT

Supply of Raw Water For

Industrial Use

**DAMODAR VALLEY CORPORATION**, a Corporation constituted under the Damodar Valley Corporation Act being Act No. XIV of 1948 (hereinafter referred to as "the said Act") and having

its "Headquarters of DVC Towers, VIP Road, Kolkata -700 054 in the state of West Bengal (hereinafter to as "the First Party", which term shall unless excluded by or repugnant to the subject or context include its successors-in-interest and assigns) of the ONE PART

AND

M/S. ELOQUENT STEEL PRIVATE LIMITED, a Limited Company, having their registered office at DIAMOND PRESTIGE, 41A, AJC BOSE ROAD, 8 TH FLOOR, ROOM 801, KOLKATA 700017 in the state of West Bengal (Hereinafter referred to as "the Second Party" which term shall unless excluded by or repugnant to the subject or context include its successors-in-interest and/or permitted assigns) of OTHER PART.

Callesh her Executive Engineer (C) Water, Tariff Cell RO'S Office, UVU Intaithon

ANNEXURE- 3 (Photo of Rain water Harvesting pond.)



# **ANNEXURE-4**

(TCLP Analysis Report of Solid Waste Ferro Slag Analysis Report.)





## **TCLP REPORT**

1.	Name of the Industry	: Eloquent Steel Pvt. Ltd.
2.	Address	: Vill. – Nakrajoria, P.O. + P.S. – Salanpur, Dist. –
		Paschim Bardhaman
3.	Report No.	: ENV/397A/S/M/23-24
4.	Date of sampling	: 13.09.2023
5.	Reporting Date	: 23.09.2023
6.	Type of sample	: Slag
7.	Location	: Ferro Slag

<u>Sl.</u> <u>No.</u>	PARAMETERS	METHOD	UNIT	<u>RESULTS</u>
1.	Iron (Fe)	EPA 1311 : 1992 / EPA 3050 B, 1996/EPA 200.9 : 1998	mg./l	2.80
2.	Zinc (Zn)	EPA 1311 : 1992 / APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg./l	2.56
3.	Copper (Cu)	EPA 1311 : 1992 / EPA 3050 B, 1996/EPA 200.6 : 1998	mg./l	2.80
4.	Nickel (Ni)	EPA 1311 : 1992 / APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg./l	1.24
5. ,	Lead (Pb)	Lead (Pb) EPA 1311 : 1992 / EPA 3050 B, 1996/EPA 200.9 : 1998		1.56
6.	Cadmium (Cd)	EPA 1311 : 1992 / EPA 3050 B, 1996/IS 3050 (Part 46)		0.5
7.	Chromium (Cr)	APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg./l	0.64

Remarks : Result relates only to the sample tested.

**Reviewed By:** 

Indrawi Bhattacharyja

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Authorised Signatory :



Dr. AJOY PAUL Quality Manager

#### <End of Report>

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 Overseas
 :
 UAE = Qatar = Netherlands

# ANNEXURE- 5 (Some Photographs of green belt)







# ANNEXURE- 6

(Some Photographs of plant Road and Paved road.)







# ANNEXURE- 7 (Industrial Effluent Water analysis report.)





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

## TEST REPORT

Name of the Industry	•	Eloquent Steel F	l Pvt. Ltd. Type of Industry			:	Ferro Alloy and SMS Unit	
Address	:	Vill. – Nakrajori	a, P.O. + P.S. – Salanpur, Di	st. Sampli	ng Date	:	13.09.2023	
		– Paschim Bard	naman	Period	of Analysis	:	14.09.2023 - 20.09.2023	
				Date of	f Issue	:	21.09.2023	
Sampling Plan & Procedure		: ENV/SOP/01	Deviation from the:Sampling Methodand Plan	No Typ Sam	e of : ple	In ((	ndustrial Effluent Water Grab)	
Location :	Re W	ecycling Sa ater Tank Sa	mple ID No. : ENV/3 /W	97B/Sep./M	Report No.		ENV/397B/Sep./M/TR(W) /23-24	

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS	
1.	pH	4500 H+B APHA 23 <sup>rd</sup> Edition, 2017	acted 1	6.80	
2.	Total Suspended Solids	2540 D APHA 23rd Edition, 2017	mg/l	20.0	
3.	Oil & Grease	5520 B/D APHA 23 <sup>rd</sup> Edition, 2017	mg/l	<1.0	
4.	Chemical Oxygen Demand	5200 B/C/D APHA 23rd Edition, 2017	mg/l	60.0	
5.	Biochemical Oxygen	5210 B APHA 23 <sup>rd</sup> Edition, 2017	mg/l	<2.0	
	Demand for 5 days at 20°C				

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 :

Her

Dr. AJOY PAUL Quality Manager

<End of Report>

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# ANNEXURE- 8 (Copy of CTE and CTO.)



NOC NO180715

# WEST BENGAL POLLUTION CONTROL BOARD

Paribesh Bhawan 10A, Block-LA, Sector-III Bidhannagar, Kolkata-700106

Memo No. 241-2N-68/2021(E)

Dated 08.05.2023

From : Member Secretary, West Bengal Pollution Control Board

To: M/s. ELOQUENT STEEL PRIVATE LIMITED, "Diamond Prestige", 41A, A.J. C. Bose Road, 8th Floor,#801, Kolkata - 700017.

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

Ref: 1 Your letter No. NIL Dated 28.04.2023 ii) EC obtained from MOEF&CC vide EC Identification No.EC23A008WB 135416, File No.J-11011/188/2011-IA.II(1) dated 16.03.2023.

Dear Sirs,

In response to the application for Consent to Establish (NOC) for proposed Unit of M/s .ELOQUENT

Steel Private Limited for manufacturing/storage/installation 336,000TPA Billet Production alongwith Rolling Mill for production of 210,000TPA Rolled Product. Installation of 150,000TPA Briguette Plant, 108,000TPA Sinter Plant and addition of Pig ak. Iron as product from the existing Submerged Arc Furnace in existing\*

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.

- \* Project site located at Village-Nakrajoria, P.O.-Salanpur, Dist.-Paschim Bardhaman, West Bengal, Pin-713357.
- The quality of sewage and trade effluent to be discharged from your factoy 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 by this Board.
- No. emission shall be permitted without prior approval of this Board and you shall apply to this Board for its consent to operate and atmospheric emission as per provision of the Air (Prevention & Control Pollution) act, 1981.
- 6. No industrial plant, furnace, flues, chimneys, control equipment, etc. shall be constructed/reconstructed/ erected/re-erected without prior approval of this Board.

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

# NOC NO180715

#### You shall comply with 7.

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

#### SPECIAL CONDITION :

- i) Refer to Annexure attached herewith.
- The Gross Capital Investment for the Project is Rs.120 Crores (Rupees One Enganzana Hundred and Twenty Crores).

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

Yours faithfully. 08/08/2023 Im

Member Secretary, Chief Engineer West Bengal Pollution Control Board (EIM CELL)

Chief Engineer

Dept. of Environment, Govt. of W.B.

Dated Pollution Control Board

-2N-68/2021(E) d/d. 08/05/2023 Memo No. 241 Copy forwarded for information to :

Chief Inspector of Factories, Government of West Bengal, N. S. Building, Kolkata-700 001 1.

- Director of Industries/Director of Cottage & Small Scale Industries, Government of West Bengal, N. S. 2. Building. Kolkata-700 001
- Guard file, West Bengal Pollution Control Board. 3.
- Environmental Engineer, I/II/Alipur R.O./Howrah R.O./Hooghly R.O./B.R.O./D.R.O./Haldia R.O./S.R.O./Malda R.O./ 4 Asansol R.O./WBPC Board.
- Alipore Regional Office 5 "Minority Bhawan", 5th Floor, 12, Biplabi Kanailal Bhattacharya Sarani, Alipore, Kolkata-700 027 Telefax No. 033-2448-5553 033-2448-5554 Tel No.
- **Durgapur Reginal Office** 8. Sahid Khudiram Sarani, City Centre, Durgapur, Paschim Bardhaman-713 216. Tel No. 0343-2546708 Telefax No. (0343) 2544915
- Howrah Regional Office 11. "Minority Bhawan", 5th Floor, 12, Biplabi Kanailal Bhattacharya Sarani, Alipore, Kolkata-700 027 Tel No. 033-2448-2219/2220
- Saltlake Regional Office 14. Mani Square, Block No. 8IT, Western Side, 8th floor, 164/1, Maniktala Main Road, Kolkata-700 054 Tel No. 2320-0097 / 9330869729

- Asansol Regional Office Kalyanpur Satelite Township Project (KSTP), Dr. B.C. Roy Road, P.O. - Dakshin Dhadka, P.S. Asansol (North), Dist.-Paschim Bardhaman, Asansol-713 302 Telefax No. 0341-2999280 0341-2999281
- 9. Haldia Regional Office Mouza : Raghunathchak, PS : Bhabanipur (Formerly Sutahata), PO : Barghasipur Dist. Purba Medinipur, Pin : 721 657 Tel No. 03224-291293/94
- 12. Kolkata Regional Office Mani Square, Block No. 8IT, Western Side, 8th floor, 164/1, Maniktala Main Road, Kolkata-700 054 Tel No. 033-2320-0059 / 9836288884
- 15. Siliguri Regional Office Paribahan Nagar, P.O.: Matigara, Siliguri, Darjeeling, Pin-734 010 Tel No. 0353-257 1115 Telefax No. 0353-257 1113

Barrackpore Regional Office 7. Panpur More, Kalyani Expressway, Vill.-Panpur, P.O.-Narayanpur, Dist.: 24-Parganas (N), Pin-743 126 Telefax No. 033-2580 0573

10. Hooghly Regional Office Himalaya Bhawan, Delhi Road, Dankuni, Hooghly, Pin : 712 311 Telefax No. 033-2659-0957

13. Malda Regional Office Paribesh Bhaban. Vill .: Abhirampur, P.O .: Mokdumpur, P.S.: English Bazar, Malda-732 103 Tel No. 03512-223449

Nort Steller

Member Secretary/Chief Englineer West Bengal Pollution Control Board CELL) (EIM Chief Engineer W. B. Pollution Control Board Dept. of Environment, Govt. of W.B.

### Annexure - I to NOC NO180715

### Issued to: M/s Eloquent Steel Private Limited, Vill- Nakrajoria, PO- Salanpur, Dist-Paschim Bardhaman, West Bengal – 713357

SI. No.	Plant Equipment/F	Existing facilities as per EC dated 28.07.2008, 11.12.2008, 03.09.2012 and 20.09.2012			Proposed Units	Final (Existing + Proposed)	Re mar	
	acility	Total Implemented (A+B) (A)		Unimplemented (B)	As per CTO	-		ks
		Conf. &	Conf. &	Conf. &	Conf. &	Configuration	Configuration	
		Capacity	Capacity	Capacity	Capacity	Capacity TPA	Capacity TPA	
1	Steel Melting Shop (Induction Furnace)	4x7 Ton	4x7 Ton	-	4x7 Ton	Modification of Existing 4x7Ton IF to 4x8 Ton + Installation of 2x8Ton IF with LRF (1x8T) & 1x4/7m CCM	6x8 Ton Induction Furnace with 1x8 Ton LRF and 2x4/7m CCM	-
		106004TPA MS Ingots	106004TPA MS Ingots	-	106004TPA MS Ingots	164,500 Billets	164,500 Total Billets 336,000	
		-		Installation of 2x25Ton IF With 1x25 Ton LRF and 3x6/11m CCM	DiffetsBillets2x25 TonIF with1x25 TonLRF and3x6/11mCCM			
						171,500 Billets	171,500 Billets	
2	Ferro-Alloy Plant with Metal recovery Plant (Submerged Arc Furnace)	5x7.5MVA +1x5.5 MVA	3x7.5MVA +1x5.5 MVA	2x7.5 MVA	3x7.5 MVA +1x5.5 MVA	Proposed for addition of Pig Iron production Without adding any additional facilities	3x7.5 MVA +1x5.5 MVA SAF with metal recovery Plant	
		Fe-Mn 76,131 Si-Mn 54,629 Fe-Si 9000	Fe-Mn 59,052 Si-Mn 43,235	Fe-Mn 17,079 Si-Mn 11,394 Fe-Si 9,000	Fe-Mn 59052 Si-Mn 43,235	Pig Iron-76400	Fe-Mn- 59,052, or Si. Mn- 43,236, or Fe Si $-$ 22,680, or High Carbon Ferro Chrome $-$ 59,052, or Ferro Silico Chrome $-$ 33,480, or Pig Iron-76,400, or in combination of any	-
3	Rolling Mill	-	-	-	-	600 TPD 2,10,000 Rolled Products (TMT Bar, MS Round & Wire Rod)	600TPD 2,10,000 Rolled Products (TMT Bar, MS Round & Wire Rod)	-
4	Reheating Furnace			-	-	1 x 25 TPH	1 x 25 TPH	-
5	Sinter Plant	300 TPD	-	300 TPD	-	300 TPD	300 TPD	
6	Briquette					1x25 TPH	1x25 TPH	
0	Plant	1	-			1.50,000	1.50.000	1 -

### UNIT CONFIGURATION AND CAPACITY

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

1
## Annexure - II to NOC NO180715

Issued to: M/s Eloquent Steel Private Limited, Vill- Nakrajoria, PO- Salanpur, Dist-Paschim Bardhaman, West Bengal – 713357

## AIR POLLUTION CONTROL DEVICE DETAILS WITH STAK

SI No	Name of the Unit	Configuration	APC Details	Stack Height from GL	Remarks
Α	FERRO DIVISION				
1	Sub-merged Arc	1x7.5 MVA	Bag Filter	36m	
2	Furnace (SAF)	1x7.5 MVA	Bag Filter	36m	Existing Units
3		1x7.5 MVA	Bag Filter	36m	Existing Onits
4		1x5.5 MVA	Bag Filter	36m	
В	SMS DIVISION				
1	Induction Furnace with	3x8 Ton Ind. Furnace	Bag Filter	30m	Modification of existing 4x7Ton
2	LRF	3x8 Ton Ind. Furnace with 1x8 Ton LRF	Bag Filter	30m	IF to 4x8 Ton + New Installation of 2x8 Ton IF with LRF (1x8T)
3	Induction Furnace with LRF	2x25 Ton Ind. Furnace with 1x25 Ton LRF	Bag Filter	30m	Proposed Units
С	Rolling Mill Division				
1	Re-Heating Furnace	1x25 TPH	Bag Filter	30m	
D	Sinter Plant	1x300 TPD	Bag Filter	30m	Proposed Units
E	Briquette Plant	1x25 TPH	Bag Filter	30m	
F	DG Set	2x500 KVA	1-1-1	8.5m	

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

## Annexure – III to NOC NO180715

## Issued to: M/s Eloquent Steel Private Limited, Vill- Nakrajoria, PO- Salanpur, Dist-Paschim Bardhaman, West Bengal – 713357

#### A) Emission:

- I. The DG sets and Boilers shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.
- II. Storage of raw materials, coal etc. shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- III. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21't July,2010 and amended from time to time shall be followed.
- IV. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R.No.826 (E) dated 16th November, 2009 shall be complied with.

#### B) Effluent:

- Process To be treated in effluent treatment plant (ETP). Zero liquid discharge to be ensured as committed.
- Domestic To be treated in integrated waste water treatment plant (STP). Treated effluent to be reused.

#### C) Solid Waste & Hazardous Waste:

- I. The PP should comply with the provisions of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 or any amendments thereafter.
- II. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- III. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- IV. Municipal solid wastes to be disposed off as per the Solid Waste Management Rules, 2016.

#### D) General:

- I. Noise Control Ambient noise & D.G. Set noise level not to exceed the permissible limit.
- II. The standards / guidelines for control of noise from stationary Diesel generator sets prescribed under notification of Ministry of Environment & Forest, Govt. of India, G.S.R.371(E), [17/5/2002] and its amendments should be followed.
- III. Water bodies exist within the project site should not be disturbed.
- IV. Action to be taken to control fugitive emission.
- V. Fire License to be obtained from competent authority.
- VI. The unit should obtain authorization from this Board under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- VII. Good housekeeping to be maintained.

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

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- VIII. No expansion / modification to be carried out without permission from this Board.
- IX. The unit should obtain Consent-to- Operate for the proposed project from the State Board before starting manufacturing activities.
- X. Statutory clearance/license from competent authorities, as applicable to be obtained.
- XI. All conditions laid down in the Environmental Clearance obtained for the project from MoEF & CC, GoI, vide EC Identification No. – EC23A008WB135416 File No. – J-11011/188/2011-IA.II(I) dated 16/03/2023 be strictly compiled with.
- XII. This 'Consent to Establish' is valid up to 31.05.2030 for setting up the unit.

11) may Report Mars-Chief Engineer (EIM Cell)

## West Bengal Pollution Control Board

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

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## WEST BENGAL POLLUTION CONTROL BOARD

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

Consent Letter Number : C0134657

Memo Number: 195- WPBNJRed BWar cont 1581/07

Date: 8.5. 2023

## **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 :

MIS Eleguent Steel Prevale Vinited

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

(hereinafter referred to as Applicant) for its unit located at ... Nell -Nakozajonia Bardhaman, PIN- 713357 schem ......

for a period from .....

to <u>30/04/2028</u>

....(Detailed address of the manufacturing unit)

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

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

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



For and on behalf of the State Board

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

## ANNEXURE

(2)

Consent to MIS Eloguent Steel Private Limited for its unit at vill- Nakrazoria, POS PS- Salanpur, Dist - Paschim Bardhaman, PIN- 713357

## **Conditions**:

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

Sl. No.	Name of major products and by-products	Quantity manufactured per month
01	Ferro Manganese	4921 tonnes on
02	Silico Manganese	3603 tormes on
03	High Carbon Ferro Chrome	4921 tonnes on
04	Ferro Silicon	1890 tonnes on
05	Ferris Silics Chrome BEN	GA 2790 Connes
06	Forrs Manganeses Slag (by-product)	4180 tonnes
07		
08		
09		
10		
11		A REALT STATES
12		T ATTEN

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	4.0	KL.
05.	Daily discharge of mixed (industrial & domestic) liquid effluent shall not exceed	-	KL.
06.	The Applicant shall discharge liquid effluent to	(pl	ace of discharge)

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.

08

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

Continued.....

nt to Mis Eloquent Steel Private Limited its unit at vill- Nakrazonia, POL PS- Salanpur, Dist - Paschim Bardhaman, PIN- 713357

Table-I

Dutlet	Nature of	Parameters	Standard	Frequency of effluent sampling
140.	2. M	nH	Between: 5.5-9.0	- yearly -
01	Domestic	Total Suspended Solids	Not to exceed : 100 mg/1.	
		Biochemical Oxygen Demand (3day at 27°C)	Not to exceed : 30 mg/1.	
1.		Chemical Oxygen Demand	Not to exceed : 250mg/1.	
		Oil & Grease	Not to exceed : /o mg/1.	
		On & Grease		
-	-			
	1.			
- to the second		MEGTREN	I A I	125 S 10 1
		W Bases God E Based Bases II		and and an other
-				
			A A A A A A A A A A A A A A A A A A A	
-		A CONTRACTOR OF THE PARTY OF TH		
-			The Branch and the	

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

	Industrial cooling, spraying in mine pits and boiler feed water	→	367.0	KL
•	(Water used for gardening should be included in this category of Domestic purpose	of use) →	15.0	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.

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

Continued .....

Consent to MIs Eloquent Steel Private Limited for its unit at vill- Nakra Jonia, Pos PS- Salanpur Dist -Parchim Bardhaman PIN-713357 .....

- 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	Stack attached Ao (sources and	Volume Nm <sup>3</sup> /hr.	Velocity of gas	Concent	Frequency of emission sampling			
	G.I., (in mts.)	if any):	WE	5 m/sec	SPM (mg/Nm <sup>3</sup> )	CO (%v/v)		x	
S-I	36m	1 × 5-5 N	IVA SE.	<b>₽</b> F	100				Quartery
S-2	36m	1 X 7.5 N	WA SE.	4F	100		Same St	P	Guartery
S-3	36 m	1 X 7.5 M	OVA SE	HF.	100				Guartery
S-4	36m	1x 7.5 A	AVA SE.	AF.	100	90 I.S. 7 /855		A start	Guartery
S-5	12m	2x 250	KYA DO	2 set	150		~		yearly
S-6	<u>_</u> *								
S-7	¢.		1-50-						
S-8	and and a								
S-9									
S-10			/			-	- Dimensional Company	and the second	

1 08/3/23

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

Continued.....

nsent to Mls Eloguent Steel Private Limited or its unit at vill- Nakrazoria, POEDS- Salanpur, Dist - Reschim haman, PIN- 713357 

- 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		2×250 KVA DG Set					
02								
03								
04			and a set of an end of the					
05			สารทางการสิบารระหารมาก					

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

Type of waste	Quantity	Treatment	Disposal
\			
	Contraction of the second s		4

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

Time	Limit in dB(A) L <sub>eq</sub>
Day Time (06 a.m. to 99 p.m.)	75
Night Time (09 p.m. to 06 a.m.)	70

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

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

of

(6)

Consent to M/s Eleguent Steel Private Limited for its unit at vill- Nakorazoria, PO& PS- Salan pur, Dist - Paschin Bauchaman, PIN- 713357

- 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 against your unit wire environmental hard caused to your perit. 2. Chrome one must be stored in a secured place. 68 3. All procedution to be taken to (Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

minimize pupilive emission. A. No additional machinery to be installed without prior permission from the State Board.

## Annexure I

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

Type of Waste	Quantity (Metric Tonnes/Month)	Method for treatment and disposal
FERRO MANGANESE SLAG OR	4180.0	Shall be used for the Production of Silico Manganese
SILICO MANGANESE SLAG OR	3060.0	Shall be used as aggregate for road making & land filling
HIGH CARBON FERRO CHROME SLAG OR	4180.0	After Chrome recovery the tailing material shall be used as stone chips & after TCLP test for landfilling purpose
FERRO SILICON SLAG OR	95.0	Shall be sold to cement industries as raw material and also used for medium carbon Si-Mn production
FERRO SILICO CHROME SLAG OR in combination of any	140.0	To be sold to cement industries as raw material & after TCLP test for road constructions
Bag Filter Dust	170.0	Shall be recycled back in the process plant

Environmental Engineer Asansol Regional Office

ANNEXURE- 9 (Ambient Air Quality Monitoring Report.)





FORMAT NO : ENV/FM/37

Name of the Industry	:	Eloquent	Steel	Pvt. Ltd.	td. Type of Industry						Ferro Alloy and SMS Unit		
Address	:	Vill. – Nak	Vill. – Nakrajoria, P.O. + P.S. – Salanpur, Dist. –					Sampling Date 🛛 : 12			12.09.202	12.09.2023 - 13.09.2023	
		PaschimB	Bardha	aman	nan		Period of Analysis				16.09.2023 - 19.09.2023		
							Date of Issue			:	21.09.2023		
Sampling Plan & Procedure	:	ENV/SOP	P/01	Deviatio	n fro	om the Sampling Method a	and Plan	:	No	Type	of Sample		Ambient Air
Sample Condition	:	Sealed	Samp	le ID No.	No. : ENV/65/Sep./A/V Report No. : ENV/65/S				65/Sep./TR	Sep./TR(A)/V/23-24			

#### A] <u>GENERAL INFORMATION</u>

1. Location of Sampling

Near M.C.C Buildings (Back Side of the Plant)
24 hrs. (11:00 a.m. - 11:00 a.m.)

## B] METEOROLOGICAL INFORMATION

**Duration of Sampling** 

1.	Average Temperature	(°C)

- 2. Average Relative Humidity (%)
- 3. Barometric Pressure (mm of Hg)
- 4. Smell or Odour
  - Weather Condition

: 755.0 : No Remarkable Smell

Clear

: 30.0

: 72.0

## CI RESULTS

2.

5.

~]	RESOLIS			
SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	IS 5182 (Part 24) : 2019	45.10
2.	Concentration of PM10	µg/m <sup>3</sup>	IS 5182 (PART 23) : 2019	66.72
3.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11 (Vol. 11.07) : 2017	12.60
4.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	29.20
5.	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 2019	0.42
6.	Concentration of Pb	µg/m <sup>3</sup>	IS 5182 (Part 22) : 2019	< 0.01
7.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	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 (C6H6)	µg/m <sup>3</sup>	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	< 0.74
9.	Ozone (O3)	µg/m <sup>3</sup>	IS 5182 (Part-9) : 2019	18.50
10.	Ammonia (NH3)	µg/m <sup>3</sup>	IS 5182 (Part 25) : 2018	<4.18
11.	Nickel (Ni)	ng/m <sup>3</sup>	EPA IO 3.2, 1999	< 0.02
12.	Arsenic (As)	ng/m <sup>3</sup>	EPA IO 3.2, 1999& APHA 23rd Ed 3114C : 2017	< 0.01
D	Devile states and the	AL		

Remarks : Result relates only to the sample tested.

## **Reviewed By :**

Indrawi Blattacharyya

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

Authorised Signatory : to

Dr. AJOY PAUL Quality Manager

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

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

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

 Overseas
 : UAE = Qatar = Netherlands





FORMAT NO : ENV/FM/37

Name of the Industry	:	Eloquent Stee	Pvt. Ltd.			Type o	of In	dustry	/	:	Ferro Alloy and SMS Unit			
Address	:	Vill. – Nakrajo	ria, P.O. + P.	S 3	Salanpur, Dist. –	Sampl	ing	Date	3	:	12.09.202	3 -	13.09.2023	
		PaschimBardh	PaschimBardhaman					Analys	is	۰.	16.09.2023 - 19.09.2023			
						Date o	f Iss	sue		:	21.09.202	3		
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation	m the Sampling Method a	d and Plan		No	Тур	)e	of Sample	100	Ambient Air		
Sample Condition	(:	Sealed Sam	ole ID No.	2	ENV/65/Sep./A/VI	Repor	t No	. :	EN	V/	65/Sep./TR	(A)	/VI/23-24	

#### **GENERAL INFORMATION** A]

1. Location of Sampling 2. **Duration of Sampling** 

- Near Administrative Buildings 24 hrs. (09:10 a.m. - 09:10 a.m.)
- **METEOROLOGICAL INFORMATION** B]
  - Average Temperature (°C)
- : 31.0

: 69.0

.

:

:

- Average Relative Humidity (%) 2.
- 3. Barometric Pressure (mm of Hg)
- 4. Smell or Odour

1.

Weather Condition 5.

755.0 No Remarkable Smell ÷ Clear

<b>C</b> ]	RESULTS			
SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	IS 5182 (Part 24) : 2019	46.36
2.	Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	IS 5182 (PART 23) : 2019	71.78
3.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11 (Vol. 11.07) : 2017	9.03
4.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	26.52
5.	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 2019	0.38
6.	Concentration of Pb	µg/m <sup>3</sup>	IS 5182 (Part 22) : 2019	< 0.01
7.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	IS 5182 (Part 12) :2019 & ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021/ASTM D 6209-98, Sec. 11 (Vo. 11.07) : 2021	<0.36
8.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	< 0.74
9.	Ozone (O3)	µg/m <sup>3</sup>	IS 5182 (Part-9) : 2019	15.0
10.	Ammonia (NH3)	µg/m <sup>3</sup>	IS 5182 (Part 25) : 2018	<4.18
11.	Nickel (Ni)	ng/m <sup>3</sup>	EPA IO 3.2, 1999	< 0.02
12.	Arsenic (As)	ng/m <sup>3</sup>	EPA IO 3.2, 1999& APHA 23rd Ed 3114C : 2017	< 0.01

Remarks : Result relates only to the sample tested.

## **Reviewed By** :

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Branch Office	2	Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi
Overseas	1	UAE = Qatar = Netherlands





FORMAT NO : ENV/FM/37

Name of the Industry	:	Eloquent Steel	Pvt. Ltd.	T	ype of l	Ind	dustry	:	Ferro Alloy and SMS Unit				
Address	:	Vill. – Nakrajoı	ria, P.O. + P.S. – Salanpur, Dist. –	S	ampling	g I	Date	:	12.09.202	3 -	13.09.2023		
		PaschimBardh	PaschimBardhaman					:	16.09.2023 - 19.09.2023				
				D	ate of I	SS	ue	:	21.09.202	3			
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method	and F	Plan :	:	No T	ype of Sample : Ambient Air					
Sample Condition	:	Sealed Samp	ole ID No. : ENV/65/Sep./A/VII	R	leport N	lo	.   :   E	NV/	65/Sep./TR	(A)	/VII/23-24		

#### A] GENERAL INFORMATION

1. Location of Sampling

Near Temple at Plant Boundary

2.	Duration of Sampling	:	24 hrs. (09:30 a.m 09:30 a.m.)
B]	METEOROLOGICAL INFORMATION		
1.	Average Temperature (ºC)	:	30.0
2.	Average Relative Humidity (%)	:	70.0
3.	Barometric Pressure (mm of Hg)	:	755.0
4.	Smell or Odour	:	No Remarkable Smell
5.	Weather Condition		Clear

:

## C] <u>RESULTS</u>

~1	AND COMP.			
SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	IS 5182 (Part 24) : 2019	47.84
2.	Concentration of PM10	µg/m <sup>3</sup>	IS 5182 (PART 23) : 2019	77.80
3.	Concentration of $SO_2$	µg/m <sup>3</sup>	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11 (Vol. 11.07) : 2017	15.12
4.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	36.53
5.	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 2019	0.48
6.	Concentration of Pb	µg/m <sup>3</sup>	IS 5182 (Part 22) : 2019	< 0.01
7.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	IS 5182 (Part 12) :2019 & ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021/ASTM D 6209-98, Sec. 11 (Vo. 11.07) : 2021	<0.36
8.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74
9.	Ozone (O3)	µg/m <sup>3</sup>	IS 5182 (Part-9) : 2019	25.0
10.	Ammonia (NH3)	µg/m <sup>3</sup>	IS 5182 (Part 25) : 2018	<4.18
11.	Nickel (Ni)	ng/m <sup>3</sup>	EPA IO 3.2, 1999	< 0.02
12.	Arsenic (As)	ng/m <sup>3</sup>	EPA IO 3.2, 1999& APHA 23rd Ed 3114C : 2017	< 0.01

Remarks : Result relates only to the sample tested.

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Branch Office	1	Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi
Overseas	:	UAE = Qatar = Netherlands





FORMAT NO : ENV/FM/37

Name of the Industry	:	Eloquent Steel	Pvt. Ltd.	vt. Ltd.				dustry	:	Ferro Alloy and SMS Unit					
Address	:	Vill. – Nakrajo	ria, P.O. + F	.S	Salanpur, Dist. –	Sampling Date					12.09.202	3 -	13.09.2023		
		PaschimBardh	PaschimBardhaman					Period of Analysis				16.09.2023 - 19.09.2023			
						Date o	fIss	sue	:		21.09.202	3	3		
Sampling Plan & Procedure	:	ENV/SOP/01 Deviation from the Sampling Method an					:	No	Тур	e	of Sample	:	Ambient Air		
Sample Condition	:	Sealed Sam	ole ID No.	:	ENV/65/Sep./A/VIII	Repor	t No	). : I	ENV	1/0	65/Sep./TR	(A)	/VIII/23-24		

## A] GENERAL INFORMATION

- 1. Location of Sampling
- 2. Duration of Sampling

Dendua Village (1 Km. Distance From the Plant) 24 hrs. (10:00 a.m. – 10:00 a.m.)

#### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C)

Weather Condition

- 2. Average Relative Humidity (%)
- 3. Barometric Pressure (mm of Hg)
- 4. Smell or Odour

: No Remarkable Smell : Clear

: 30.0

70.0

755.0

:

:

•

•

#### C] <u>RESULTS</u>

5.

SL.	PARAMETERS	PARAMETERS UNIT METHOD NO.				
1.	Concentration of PM <sub>25</sub>	ug/m <sup>3</sup>	IS 5182 (Part 24) : 2019	46.40		
2.	Concentration of PM <sub>10</sub>	$\mu g/m^3$	IS 5182 (PART 23) : 2019	67.89		
3.	$Concentration \ of \ SO_2$	µg/m <sup>3</sup>	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11 (Vol. 11.07) : 2017	8.40		
4.	Concentration of NO <sub>2</sub>	µg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11 (Vol. 11.07) : 2018	26.44		
5.	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 2019	0.28		
6.	Concentration of Pb	$\mu g/m^3$	IS 5182 (Part 22) : 2019	< 0.01		
7.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	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 (C6H6)	µg/m <sup>3</sup>	IS 5182 (Part 11) 2017& ASTM D 6209-98, Sec. 11 (Vol. 11.07) : 2021	<0.74		
9.	Ozone (O3)	$\mu g/m^3$	IS 5182 (Part-9) : 2019	16.50		
10.	Ammonia (NH3)	$\mu g/m^3$	IS 5182 (Part 25) : 2018	<4.18		
11.	Nickel (Ni)	ng/m <sup>3</sup>	EPA IO 3.2, 1999	< 0.02		
12.	Arsenic (As)	ng/m <sup>3</sup>	EPA IO 3.2, 1999& APHA 23rd Ed 3114C: 2017	< 0.01		

Remarks : Result relates only to the sample tested.

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Overseas	:	UAE = Qatar = Netherlands

# ANNEXURE-10 (Work Zone Air Quality Monitoring Report.)





FORMAT NO : ENV/FM/57

Name of the Industry	:	Eloquent S	Steel P	vt. Ltd.			Type o	Type of Industry			: Ferro Alloy and SMS Un		
Address	:	Vill. – Nakr	rajoria	a, P.O. + P	.S	Salanpur, Dist. –	Sampl	ing	Date	:	13.09.202	23	
		PaschimBa	PaschimBardhaman				Period	lof	Analys	is :	16.09.2023 - 19.09.2023 21.09.2023		
							Date o	fIss	sue	120			
Sampling Plan & Procedure	:	ENV/SOP/	/01	Deviatio	n fro	om the Sampling Method	and Plan	:	No	Туре	of Sample	:	Work Zone Air
Sample Condition	:	Sealed S	Sample	ID No.	:	ENV/65/Sep./A/IX	Repor	t No	). :	ENV/	65/Sep./T	R(A)	/IX/23-24

## A] GENERAL INFORMATION

1. Location of Sampling

- : Raw Material Handling Yard : 08 hrs. (10:20 a.m. – 06:20 p.m.)
- **Duration of Sampling** 2. ÷ METEOROLOGICAL INFORMATION B] 1. Average Temperature (°C) 30.0 : 2. Average Relative Humidity (%) 70.0 : 3. Barometric Pressure (mm of Hg) 755.0 : No Remarkable Smell 4. Smell or Odour :

# C] RESULT SL. PARAMETER UNIT METHOD NO. RESULT 1. Concentration of SPM µg/m³ IS 5182 (Part 4) : 2019 310.52

Remarks : Result relates only to the sample tested.

## **Reviewed By :**

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E-mail	:	info@envirocheck.in / envirocheck50@gmail.com = Website : www.envirocheck.in
<b>Branch Office</b>	:	Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi
Overseas	i.	UAE = Qatar = Netherlands





FORMAT NO : ENV/FM/57

Name of the     :     Eloquent Steel Pvt. Ltd.       Industry						Type of Industry				Ferro Alloy and SMS Unit		
Address	:	Vill. – Nakrajoi	ria, P.O. + P.S.	. – Salanpur, I	)ist. –	Sampli	ing	Date	:	13.09.202	23	
		PaschimBardh	aschimBardhaman				Period of Analysis			16.09.2023 - 19.09.2023		
						Date o	fIss	sue	:	21.09.202	23	
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation f	from the Samj	oling Method a	nd Plan	:	No	Type	of Sample	:	Work Zone Air
Sample Condition	:	Sealed Samp	le ID No.	: ENV/65/9	Sep./A/IX	Report	t No	. :	ENV/	/65/Sep./TI	R(A)	)/IX/23-24
A] <u>GENERAL IN</u>	FOR	MATION		:   ENV/05/3	ep./A/IX	керог	LINC	p.   :	ENV/	05/Sep./11	ιA	J/1A/23-24

1.	Location of Sampling	: Raw Material Handling Yard	
2.	Duration of Sampling	: 08 hrs. (10:20 a.m 06:20 p.m.)	
B]	METEOROLOGICAL INFORMATION		
1.	Average Temperature (ºC)	: 30.0	
2.	Average Relative Humidity (%)	: 70.0	
3.	Barometric Pressure (mm of Hg)	: 755.0	
4.	Smell or Odour	: No Remarkable Smell	

## C] <u>RESULTS</u>

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
•	Concentration of SO <sub>2</sub>	μg/m <sup>3</sup>	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	16.52
			(Vol. 11.07) : 2017	
2.	$Concentration \ of \ NO_2$	μg/m <sup>3</sup>	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	26.20
			(Vol. 11.07): 2018	

Remarks : Result relates only to the sample tested.

#### **Reviewed By :**

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FORMAT NO : ENV/FM/57

Nam Indu	e of the strv	:	Eloquen	t Steel	Pvt. Ltd.				Type of Industry					Ferro Alloy and SMS Unit		
Addr	ess	:	Vill. – N	akrajor	ia, P.O. + I	P.S. – Sala	– Salanpur, Dist. – Sampling Date				:	13.09.2023				
			Paschin	PaschimBardhaman							Period of Analysis :				3 -	19.09.2023
									Date o	f Iss	ue	:	21.09.202	3		
Samı Proc	ampling Plan & : ENV/SOP/01 Deviation Procedure				on from tl	he S	Sampling Metho	d an	d Plan	:	No	Type	of Sample	:	Work Zone Ai	
Samp	ole Condition	:	Sealed	Samp	le ID No.	: EN	IV/e	65/Sep./A/X		Repor	t No	. :	ENV/	65/Sep./TH	R(A)	/X/23-24
A]	GENERAL IN	FOR	MATION													
1.	Location of	San	npling		and the second		: I	nside the Ferr	o Div	vision (	Nor	h Sid	e)			
2.	Duration of Sampling						: (	08 hrs. (10:00 a	a.m	- 06:00	p.n	ı.)	( and )			
B]	METEOROLO	GIC	AL INFORM	MATION		4.12					34	77-00) 				
1.	Average Te	mpe	erature ( <sup>0</sup>	C)		-	: 3	32.0								
2.	Average Re	lativ	ve Humid	ity (%)		1.	: 7	74.0								
3.	Barometric	Pre	ssure (m	m of H	g)		: 7	755.0								
4.	Smell or Od	our				:	: 1	No Remarkable	Sme	ell						
C]	RESULT			12		6. IN		an a stall	125			11				φ.
SL. NO.	PAR	AME	TER		UNIT			METI	IOD	NO.	and a				RI	ESULT
1.	Concentratio	on o	f SPM	1	µg/m³			IS 5182 (F	art 4	):2019	)			*	30	60.16
Pama	rks · Result	relo	tes only to	the same	ple tested.						1	1	×		_	

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Branch Office	1	Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi	
Overseas	:	UAE = Qatar = Netherlands	





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

Name of the Industry	:	Eloquent	Eloquent Steel Pvt. Ltd.					f In	dustry		Ferro Allo	y ai	nd SMS Unit
Address	:	Vill. – Na	krajor	ia, P.O. + F	P.S	Salanpur, Dist. –	Sampli	ing l	Date	:	13.09.202	23	
		Paschim	Bardha	aman		Period	Period of Analysis			16.09.202	23 -	- 19.09.2023	
							Date of	f Iss	ue	:	21.09.202	23	
Sampling Plan & : ENV/SOP/01 Deviation from the Sampling Method Procedure					and Plan	:	No	Type	of Sample	•	Work Zone Air		
Sample Condition	:	Sealed	Samp	le ID No.	:	ENV/65/Sep./A/X	Report	t No	. 🤃	ENV/	65/Sep./TI	R(A)	/X/23-24

#### A] <u>GENERAL INFORMATION</u>

Location of Sampling
 Duration of Sampling

Inside the Ferro Division (North Side)
08 hrs. (10:00 a.m. - 06:00 p.m.)

B] METEOROLOGICAL INFORMATIO

B]	METEOROLOGICAL INFORMATION		
1.	Average Temperature (ºC)	: 32.0	
2.	Average Relative Humidity (%)	: 74.0	
3.	Barometric Pressure (mm of Hg)	: 755.0	
4.	Smell or Odour	: No Remarkable Smell	

## C] <u>RESULTS</u>

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
	Concentration of SO <sub>2</sub>	µg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	11.26
			(Vol. 11.07) : 2017	
2.	$Concentration \ of \ NO_2$	μg/m <sup>3</sup>	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	26.50
			(Vol. 11.07) : 2018	

Remarks : Result relates only to the sample tested.

**Reviewed By :** 

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FORMAT NO : ENV/FM/57

Name of the Industry	:	Eloquent Steel	Eloquent Steel Pvt. Ltd.				Ferro Alloy and SMS Unit				
Address		Vill. – Nakrajo	ria, P.O. + P.S. – Salanpur, Dist. –	Sam	pling	Date	:	13.09.20	23		
		PaschimBardh	aschimBardhaman				is :	16.09.20	23 -	3 - 19.09.2023	
				Date	of Is	sue	:	21.09.20	23		
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method	d and Plar	ı :	No	Тур	e of Sample	:	Work Zone Air	
Sample Condition		Sealed Sam	ole ID No. : ENV/65/Sep./A/XI	Repo	ort No	o. :	ENV	/65/Sep./T	R(A)	/XI/23-24	

## A] GENERAL INFORMATION

Location of Sampling
 Duration of Sampling

Inside Ferro Division (South Side)
08 hrs. (10:10 a.m. - 06:10 p.m.)

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

1.	Average Temperature (ºC)	: 31.0	SD
2.	Average Relative Humidity (%)	: 72.0	
3.	Barometric Pressure (mm of Hg)	: 755.0	

4. Smell or Odour

:	755.0
:	No Remarkable Smell

L. PARAMETER (O.	UNIT	METHOD NO.	RESULT
Concentration of SPM	μg/m <sup>3</sup>	IS 5182 (Part 4) : 2019	262.56

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<b>Branch Office</b>	2	Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi
Overseas	1	UAE = Qatar = Netherlands





FORMAT NO : ENV/FM/57

Name of the Industry	:	Eloquent Stee	loquent Steel Pvt. Ltd.							:	Ferro Alloy and SMS Unit			
Address	:	Vill. – Nakrajo	Nakrajoria, P.O. + P.S. – Salanpur, Dist. –						Date	:	13.09.202			
		PaschimBard	aschimBardhaman			Per	Period of Analysis				16.09.2023 - 19.09.2023			
						Dat	e of I	SSI	ue	:	21.09.202	3		
Sampling Plan & Procedure	:	ENV/SOP/01	ENV/SOP/01 Deviation from the Sampling Metho		om the Sampling Method	and Pla	and Plan : No			Туре	of Sample	:	Work Zone Air	
Sample Condition	:	Sealed Sam	ole ID No.	1	ENV/65/Sep./A/XI	Rep	ort N	lo.	. :	ENV/	65/Sep./TH	R(A)	)/XI/23-24	

#### A] <u>GENERAL INFORMATION</u>

Location of Sampling
 Duration of Sampling

Inside Ferro Division (South Side) 08 hrs. (10:10 a.m. – 06:10 p.m.)

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

~1	- In the new post of the offernation		
1.	Average Temperature (°C)	: 31.0	
2.	Average Relative Humidity (%)	: 72.0	
3.	Barometric Pressure (mm of Hg)	: 755.0	
4.	Smell or Odour	: No Remarkable Smell	

:

:

## C] <u>RESULTS</u>

SL. NO.	PARAMETERS	PARAMETERS UNIT METHOD NO.						
<b>l</b> .	Concentration of SO <sub>2</sub>	µg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	12.52				
			(Vol. 11.07) : 2017					
2.	$Concentration \ of \ NO_2$	µg/m³	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	25.0				
			(Vol. 11.07) : 2018					

Remarks : Result relates only to the sample tested.

## **Reviewed By :**

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Authorised Signatory : Dr. AJOY PAUL Quality Manager

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FORMAT NO : ENV/FM/57

Name of the Industry	:	Eloquen	t Steel	Pvt. Ltd.			Type	of In	dustry	:	Ferro Alloy and SMS Unit				
Address	:	Vill. – Na	akrajor	ia, P.O. + P	.0. + P.S. – Salanpur, Dist. –				Date	:	13.09.2023				
		Paschim	aschimBardhaman					l of	Analys	is :	16.09.2023 - 19.09.2023				
							Date o	of Is:	sue	:	21.09.2023				
Sampling Plan & Procedure	:	ENV/SO	P/01	Deviatio	n fro	om the Sampling Method a	ind Plan	:	No	Туре	of Sample	:	Work Zone Air		
Sample Condition	:	Sealed	Samp	le ID No.	ID No. : ENV/65/Sep./A/XII			Report No. :			/65/Sep./TR(A)/XII/23-24				

#### A] GENERAL INFORMATION

Location of Sampling
 Duration of Sampling

: Near MRP : 08 hrs. (10:22 a.m. - 06:22 p.m.)

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

21	THE TECHNOLOGICALE INT OUT MITTON	
1.	Average Temperature (°C)	: 29.0
2.	Average Relative Humidity (%)	: 72.0
3.	Barometric Pressure (mm of Hg)	: 755.0
4.	Smell or Odour	: No Remarkable Smell

## C] <u>RESULT</u>

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1. Conc	entration of SPM	µg/m³	IS 5182 (Part 4) : 2019	230.12

Remarks : Result relates only to the sample tested.

**Reviewed By :** 

Indrawi Blattacharypo

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

**Authorised Signatory :** Do

H.O.	1	63/B, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792891/ 25497490 = Fax : 033 25299141
Laboratory	ī.	189, 190 & 192, Rastraguru Avenue, Kolkata -700028 = Ph. 033 25792889
E-mail	:	info@envirocheck.in / envirocheck50@gmail.com = Website : www.envirocheck.in
Branch Office	:	Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi
Overseas	:	UAE = Qatar = Netherlands





FORMAT NO : ENV/FM/57

Name of the Industry	:	Eloquent Ste	el Pvt. Ltd.		Type of I	Ind	lustry	:	Ferro Alloy and SMS Unit				
Address : Vill. – Nakrajoria, P.O. + P.S. – Salanpur, Dist. –					Sampling	g I	Date	:	13.09.202	3			
		PaschimBard	aschimBardhaman					s :	16.09.2023 - 19.09.2023				
					Date of I	ss	ue	:	21.09.202	3	***		
Sampling Plan & Procedure	:	ENV/SOP/01	L Deviation from the Sampling Meth	od an	id Plan	•	No	Type	of Sample	:	Work Zone Air		
Sample Condition	:	Sealed San	nple ID No. : ENV/65/Sep./A/XII		Report N	No.		ENV/	65/Sep./TR	(A)	/XII/23-24		

#### A] GENERAL INFORMATION

1. Location of Sampling Near MRP : 2. **Duration of Sampling** 08 hrs. (10:22 a.m. - 06:22 p.m.) • B] **METEOROLOGICAL INFORMATION** 1. Average Temperature (°C) 29.0 : 2. Average Relative Humidity (%) 72.0 : 3. Barometric Pressure (mm of Hg) 755.0 : 4. Smell or Odour No Remarkable Smell :

#### RESULTS C1

SL. NO.	PARAMETERS	PARAMETERS UNIT METHOD NO.					
	Concentration of SO <sub>2</sub>	µg/m³	IS 5182 (Part 2) 2017& ASTM D 2914-01,Sec. 11	7.80			
		_	(Vol. 11.07) : 2017				
2.	Concentration of $NO_2$	µg/m <sup>3</sup>	IS 5182 (Part 6) 2017& ASTM D 1607-91 : Sec. 11	23.52			
			(Vol. 11.07) : 2018				

: Result relates only to the sample tested. Remarks

#### **Reviewed By :**

Indrawi Blattachary

' INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

**Authorised Signatory :** 

Dr. AJOY PAUL Quality Manager

<End of Report>

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# ANNEXURE-11 (Ground Water Monitoring Report)





## FORMAT NO. ENV/FM/55

## TEST REPORT

Name of the Industry : Eloqu (Form			Eloquent (Former	ent Steel Pvt. Ltd. erly Known as – Hira Concast Ltd.)			Туре	of	Indust	ry	:	Ste	eel & P	ower	Unit			
Address			:	Vill. – Na	Nakrajoria, P.O. + P.S Salanpur, Dist.				Sampling Date				13.	09.202	23			
				- Paschir	- Paschim Bardhaman					Period of Analysis			16.09.2023 - 23.09.2023					
				11					Date	ofI	ssue		:	25.	09.202	23		
Sampling Plan & Procedure		:	E	NV/	SOP/01	OP/01 Deviation from the Sampling Meth and Plan					: No Type				Sample : Ground Water			
Location	ation : Dendua Village		lage	Sample Condition	-	Sealed	Sample ID No.			No.	-	: ENV/397/		397/	'Sep./W/M(i)			
Report No.		:	EN	V/39	97/Sep./T	R(W)/M(i)/23-24	0.7748		1 112-201			1443	1.80	al inst	1 - C			

PARAMETERS		METHOD	UNIT	RESULTS
1.	Colour	APHA 23rd Ed., 3111 B : 2017	Hazen	1.0
2.	Odour	APHA 23rd Ed., 2150 B : 2017	a Martin and	Odourless
3.	рН	APHA 23rd Ed., 4500 – H+B : 2017	//102421	6.80
4.	Taste	APHA 23rd Ed., 2160 B : 2017	100	Acceptable
5.	Turbidity	APHA 23rd Ed., 2130 B : 2047	NTU	1.61
6.	Total Dissolved Solids	APHA 23rd Ed., 2540 B : 2017	mg./l	580.0
7.	Calcium	APHA 23 <sup>rd</sup> Ed., 3500 Ca-B : 2017	mg./l	40.88
8.	Chloride	APHA 23rd Ed., 4500 Cl-B/D : 2017	mg./l	47.19
9.	Iron	APHA 23rd Ed., 3111 B : 2017	mg./l	0.62
10.	Magnesium	APHA 23 <sup>rd</sup> Ed., 3500 Mg-B : 2017	mg./l	9.36
11.	Nitrate	APHA 23rd Ed., NO3-E : 2017	mg./l	1.60
12.	Sulphate	APHA 23rd Ed., 4500 SO4-E : 2017	mg./l	41.80
13.	Total Alkalinity	APHA 23rd Ed., 2320 B : 2017	mg./l	180.0
14.	Total Hardness	APHA 23rd Ed., 2340 C: 2017	mg./l	141.0
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

**Authorised Signatory :** 

Indrani Bhaltacharyya

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

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

 Overseas
 : UAE = Qatar = Netherlands





## FORMAT NO. ENV/FM/55

## TEST REPORT

Name of th	e Ind	lustr	у	•	Eloquent (Former	: Steel Pvt. Ltd. ly Known as – Hira	Concast	Ltd)	Туре	of	Indust	ry	:	Steel &	Power	r Unit
Address				Vill. – Na	Nakrajoria, P.O. + P.S. – Salanpur, Dist.			Sampling Date			13.09.2	023				
			- Paschim Bardhaman Period of Analysis		ysis	:	16.09.2023 - 23.09.2023									
									Date	ofI	ssue		:	25.09.2	023	
Sampling P & Procedur	lan e	:	E	NV/	SOP/01	Deviation from the and Plan	he Samp	oling Metho	od	:	No	Тур	e of	Sample	:	Ground Water
Location	:	Na	ıkraj	oria	Village	Sample Condition	•	Sealed	S	amj	ole ID	No.	all	: ENV	/397/	Sep./W/M(ii)
Report No.		:	EN	V/3	97/Sep./T	R(W)/M(ii)/23-24		A state	1 3200	- out	ice'sys		6.10	Silen		

	PARAMETERS	METHOD	UNIT	<u>RESULTS</u>
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	3 <u>45</u>	6.84
4.	Taste	APHA 23rd Ed., 2160 B : 2017		Acceptable
5.	Turbidity	APHA 23rd Ed., 2130 B : 2047	NTU	1.80
6.	Total Dissolved Solids	APHA 23rd Ed., 2540 B : 2017	mg./l	620.0
7.	Calcium	APHA 23 <sup>rd</sup> Ed., 3500 Ca-B : 2017	mg./l	44.08
8.	Chloride	APHA 23rd Ed., 4500 Cl-B/D : 2017	mg./l	55.81
9.	Iron	APHA 23rd Ed., 3111 B : 2017	mg./l	0.70
10.	Magnesium	APHA 23 <sup>rd</sup> Ed., 3500 Mg-B : 2017	mg./l	13.92
11.	Nitrate	APHA 23rd Ed., NO3-E : 2017	mg./l	1.72
12.	Sulphate	APHA 23rd Ed., 4500 SO4-E : 2017	mg./l	46.50
13.	Total Alkalinity	APHA 23rd Ed., 2320 B : 2017	mg./l	186.50
14.	Total Hardness	APHA 23rd Ed., 2340 C : 2017	mg./l	168.0
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

Authorised Signatory :

Indrawi Blatter

 INDRANI BHATTACHARYA Dy. Technical Manager, Chemical

<End of Report>

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Branch Office	1	Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi
Overseas	1	UAE = Qatar = Netherlands

# ANNEXURE-12 (Ambient Noise Monitoring Report)







## NOISE MONITORING REPORT Eloquent Steel Pvt. Ltd. Vill. – Nakrajoria, P.O + P.S – Salanpur, District – Paschim Burdwan

MONITORED BY : ENVIROCHECK 189, Rastraguru Avenue, Calcutta - 700 028

Report No : ENV/15/Sep/(TR)N/I/23-24

Sampling Locations :	Near Administrative Building		Date of Study :	12/9/2023 6 AM to 10 PM	
Category :	Ferro Alloy and SMS Unit		Day time :		
Time (hrs.)	Lmin	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>	
6:00 AM to 7:00 AM	62.0	64.8	63.62	4.5 Er.	
7:00 AM to 8:00 AM	63.1	66.2	64.92		
8:00 AM to 9:00 AM	62.8	67.2	65.53		
9:00 AM to 10:00 AM	61.2	66.4	64.54		
10:00 AM to 11:00 AM	58.4	63.9	61.97		
11:00 AM to 12:00 PM	59.7	62.2	61.13		
12:00 PM to 1:00 PM	56.9	61.4	59.71		
1:00 PM to 2:00 PM	57.1	62.9	60.90		
2:00 PM to 3:00 PM	54.3	61.2	59.00	62.39	
3:00 PM to 4:00 PM	58.6	63.4	61.63		
4:00 PM to 5:00 PM	60.3	62.9	61.79		
5:00 PM to 6:00 PM	60.5	64.8	63.16		
6:00 PM to 7:00 PM	60.8	62.9	61.98		
7:00 PM to 8:00 PM	59.9	62.5	61.39		
8:00 PM to 9:00 PM	59.2	61.9	60.76		
9:00 PM to 10:00 PM	58.5	60.2	59.43		

Date of Study : 12/09/2023 To 13/09/2023 Night time : 10 PM to 6 AM Night time Leo Time(hrs.) Lmin Leq Lmax 10:00 PM to 11:00 PM 59.9 58.52 56.5 11:00 PM to 12:00 AM 55.1 58.3 56.99 12:00 AM to 1:00 AM 54.2 57.5 56.16 1:00 AM to 2:00 AM 56.4 59.14 53.7 55.26 2:00 AM to 3:00 AM 58.6 54.1 56.91 3:00 AM to 4:00 AM 58.2 61.5 60.16 4:00 AM to 5:00 AM 59.4 62.9 61.49 5:00 AM to 6:00 AM 60.4 63.5 62.22

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

Ber

Compiled by : (Signature) Dr. Ajoy Paul Envirocheck Seal Date : 18/09/2023



Lec :Equivalent sound energy

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

ALAL

H.O. Laboratory Email Branch Office: = Siliguri - Haldia = Durgapur = Dhanbad = Gangtok = Port Blair - Dehradun = New Delhi Overseas : 63/B, Rastraguru Avenue, Kolkata - 700028 ( 033-25792899 : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ( 033-25792889 : envcheck@cal2.vsnl.net.in/envirocheck50@gmail.com / Website : www.envirocheck.org Branch Office: = Siliguri = Haldia = Durgapur = Dhanbad = Gangtok = Port Blair = Dehradun = New Delhi : UAE = Qatar = Notherlands







## NOISE MONITORING REPORT Eloquent Steel Pvt. Ltd. Vill. - Nakrajoria, P.O + P.S - Salanpur, District - Paschim Burdwan

MONITORED BY : ENVIROCHECK 189, Rastraguru Avenue, Calcutta - 700 028

Report No : ENV/15/Sen//TR\N/II/23-24

Sampling Locations :	Near D.V.C Meter Room (B	ack Side of the Plant)	Date of Study :	12/9/2023 6 AM to 10 PM	
Category:	Ferro Alloy and SMS Unit		Day time :		
N.51 7.8-					
Time (hrs.)	L <sub>min</sub>	Lmax	L <sub>eq</sub>	Day time L <sub>ec</sub>	
6:00 AM to 7:00 AM	60.5	62.8	61.80		
7:00 AM to 8:00 AM	61.3	64.8	63.39		
8:00 AM to 9:00 AM	63.4	65.6	64.64		
9:00 AM to 10:00 AM	62.8	65.9	64.62		
10:00 AM to 11:00 AM	62.6	64.3	63.53		
11:00 AM to 12:00 PM	61.8	64.1	63.10		
12:00 PM to 1:00 PM	64.3	66.8	65.73		
1:00 PM to 2:00 PM	64.0	68.2	66.59	66.17	
2:00 PM to 3:00 PM	68.2	71.4	70.09	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	
3:00 PM to 4:00 PM	68.8	72.2	70.82		
4:00 PM to 5:00 PM	65.4	69.1	67.63		
5:00 PM to 6:00 PM	64.9	68.5	67.06		
6:00 PM to 7:00 PM	63.1	67.4	65.76		
7:00 PM to 8:00 PM	62.7	66.2	64.79		
8:00 PM to 9:00 PM	61.4	65.1	63.63		
9:00 PM to 10:00 PM	60.2	64.5	62.86		

Time(hrs.) Night time Lea L min Lmax Lea 10:00 PM to 11:00 PM 59.4 62.3 61.09 11:00 PM to 12:00 AM 58.2 61.4 60.09 12:00 AM to 1:00 AM 57.8 60.6 59.42 1:00 AM to 2:00 AM 56.3 60.4 58.82 62.48 2:00 AM to 3:00 AM 59.4 62.5 61.22 62.49 3:00 AM to 4:00 AM 60.6 63.8 4:00 AM to 5:00 AM 62.8 65.9 64.62 68.1 5:00 AM to 6:00 AM 63.0 66.26 L<sub>max</sub> :Maximum Noise level in : Minimum Noise level L<sub>eq</sub> :Equivalent sound energy Pr

12/09/2023 To 13/09/2023

Compiled by : (Signature) Dr. Ajoy Paul

Date of Study :

Envirocheck Seal Date: 18/09/2023



Night time :

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

10 PM to 6 AM

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## NOISE MONITORING REPORT Eloquent Steel Pvt. Ltd.

## Vill. - Nakrajoria, P.O + P.S - Salanpur, District - Paschim Burdwan

MONITORED BY : ENVIROCHECK 189, Rastraguru Avenue, Calcutta - 700 028

#### Report No: ENV/15/Sep/(TR)N/III/23-24

Sampling Locations :	Near Temple Plant at Plant Bour	ndary	Date of Study :	12/9/2023 6 AM to 10 PM	
Category :	Ferro Alloy and SMS Unit		Day time :		
Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>ec</sub>	
6:00 AM to 7:00 AM	66.9	70.1	68.79		
7:00 AM to 8:00 AM	68.5	72.3	70.80		
8:00 AM to 9:00 AM	70.1	74.6	72.91		
9:00 AM to 10:00 AM	68.2	71.4	70.09		
10:00 AM to 11:00 AM	68.8	72.2	70.82		
11:00 AM to 12:00 PM	65.4	69.1	67.63		
12:00 PM to 1:00 PM	64.9	68.5	67.06	67.56	
1:00 PM to 2:00 PM	63.4	65.6	64.64		
2:00 PM to 3:00 PM	62.8	65.9	64.62		
3:00 PM to 4:00 PM	62.6	64.3	63.53		
4:00 PM to 5:00 PM	61.8	64.1	63.10		
5:00 PM to 6:00 PM	62.4	64.8	63.76		
6:00 PM to 7:00 PM	62.9	63.5	63.21		
7:00 PM to 8:00 PM	61.5	63.0	62.31		
8:00 PM to 9:00 PM	60.2	62.8	61.69		
9:00 PM to 10:00 PM	60.0	61.9	61.05		
Date of Study :	12/09/2023 To 13/09/2023		Night time :	10 PM to 6 AM	

Time(hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	59.5	60.2	59.86	
11:00 PM to 12:00 AM	57.4	59.1	58.33	
12:00 AM to 1:00 AM	56.5	59.8	58.46	
1:00 AM to 2:00 AM	55.3	59.4	57.82	61.17
2:00 AM to 3:00 AM	53.2	58.8	56.85	
3:00 AM to 4:00 AM	59.6	61.2	60.47	
4:00 AM to 5:00 AM	62.5	65.8	64.46	
5:00 AM to 6:00 AM	63.4	66.1	64.96	

Compiled by : (Signature) Dr. Ajoy Paul Envirocheck Seal Date : 18/09/2023

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

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## NOISE MONITORING REPORT Eloquent Steel Pvt. Ltd. Vill. – Nakrajoria, P.O + P.S – Salanpur, District – Paschim Burdwan

MONITORED BY : ENVIROCHECK 189, Rastraguru Avenue, Calcutta - 700 028

Report No : ENV/15/Sep/(TR)N/IV/23-24

Sampling Locations :	Near M.C.C Building (Back Side of Plant)	Date of Study :	12/9/2023	
Category :	Ferro Alloy and SMS Unit	Day time :	6 AM to 10 PM	
			and the second se	

Time (hrs.)	L min	L <sub>max</sub>	Leq	Day time L <sub>eq</sub>	
6:00 AM to 7:00 AM	71.3	75.4	73.82		
7:00 AM to 8:00 AM	72.3	77.2	75.41		
8:00 AM to 9:00 AM	68.2	75.9	73.57		
9:00 AM to 10:00 AM	64.6	69.1	67.41		
10:00 AM to 11:00 AM	62.8	65.9	64.62	]	
11:00 AM to 12:00 PM	60.5	62.6	61.68		
12:00 PM to 1:00 PM	73.6	76.8	75.49		
1:00 PM to 2:00 PM	65.9	72.8	70.60	70.52	
2:00 PM to 3:00 PM	64.7	72.1	69.82		
3:00 PM to 4:00 PM	64.9	68.6	65.96		
4:00 PM to 5:00 PM	63.9	70.8	65.15		
5:00 PM to 6:00 PM	63.0	68.2	66.34		
6:00 PM to 7:00 PM	62.8	69.4	67.25		
7:00 PM to 8:00 PM	63.1	70.8	68.47		
8:00 PM to 9:00 PM	62.8	69.4	67.25		
9:00 PM to 10:00 PM	61.5	67.2	65.22		

Time(hrs.)	L min	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>e</sub>
10:00 PM to 11:00 PM	59.5	62.5	61.25	
11:00 PM to 12:00 AM	58.4	60.8	59.76	
12:00 AM to 1:00 AM	57.3	59.4	58.48	
1:00 AM to 2:00 AM	53.7	57.8	56.22	62.06
2:00 AM to 3:00 AM	52.4	56.8	55.13	
3:00 AM to 4:00 AM	60.4	62.9	61.83	
4:00 AM to 5:00 AM	63.4	66.1	64.96	
5:00 AM to 6:00 AM	65.2	67.5	66.50	

Compiled by : (Signature) Dr. Ajoy Paul Envirocheck Seal Date : 18/09/2023



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

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ( 033-25792891/25497490, Fax : 033-25299141 Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ( 033-25792889 Email : envcheck@cal2.vsnl.net.in/envirocheck50@gmail.com / Website : www.envirocheck.org Branch Office : \* Siliguri \* Haldia \* Durgapur \* Dhanbad \* Gangtok \* Port Blair \* Dehradun \* New Delhi Overseas : • UAE • Qatar • Netherlands

# **ANNEXURE-13**

# (Work Zone Noise Monitoring Report)





## FORMAT NO. : ENV/FM/53

## TEST REPORT

1. Name of the Industry / Project				Eloquent Steel Pvt. Ltd.		
2.	2. Address			Vill Nakrajoria, P.O + 1	P.S – Salanpur, Dis	strict - PaschimBurdwan
3.	Type of Industry	1	1	Ferro Alloy and SMS Uni	t	11
4.	Sampling Plan &	Procedure	:	ENV/SOP/02		1 / / ·
5.	Deviation from t	the Sampling Method & Plan	:	No		
6.	Type of Sample			Work Zone Noise		1
7.	Sample ID		:	ENV/15/Sep/N/I/23-24		
8.	Date of Study		:	12/09/2023		
9.	<b>Reporting Date</b>		:	18/09/2023		
10.	Method No.		:	IS 15575 (Part 2), 2022		
11.	11. Time of Duration of Noise			20 Minutes		
12.	12. Height from Ground Level			4 feet		
13.	Sample Monitor	ing by		Mr. Rohit Haldar		
1		RESULT OF NOISE	LEV	EL STUDY		Time :10:00 - 10:20A.M
				DAY TIME		
1. Lo	cation : R.M.H Yaı	rd				
SI. N	o. Unit	Minimum		Maximum	Leq	Remarks
		dB(A)		dB(A)	dB(A)	
01.	dB(A)	70.3	72.5		71.54	East Side
02.	dB(A)	70.8	73.6		72.42	West Side
03.	dB(A)	69.9		72.4	71.33	North Side
04.	dB(A)	68.5		71.2	70.06	South Side
į.				Average dB(A) Leq	71.33	

## **Reviewed By:**

Dolar

Dy. Quality Manager

Approved By:

**Quality Manager** 

>End of Report<

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Email	: envcheck@cal2.vsnl.net.in/envirocheck50@gmail.com / Website : www.envirocheck.org
Branch Office	e : • Siliguri • Haldia • Durgapur • Dhanbad • Gangtok • Port Blair • Dehradun • New Delhi
Overseas	: • UAE • Qatar • Netherlands





#### FORMAT NO. : ENV/FM/53

## TEST REPORT

1. Name of the Industry / Project		:	Eloquent Steel Pvt. Ltd.		11.1		
2.	Address		:	Vill. – Nakrajoria, P.O + P	.S – Salanpur, Dist	trict – PaschimBurdwan	
3.	Type of Industry		:	Ferro Alloy and SMS Unit	1		
4.	Sampling Pla	n & Procedure	:	ENV/SOP/02	1		
5.	5. Deviation from the Sampling Method & Plan		:	No			
6.	Type of Sam	ple	:	Work Zone Noise			
7.	7. Sample ID		:	ENV/15/Sep/N/II/23-24			
8.	8. Date of Study		:	12/09/2023			
9.	Reporting D:	ate	:	18/09/2023			
10.	Method No.		:	IS 15575 (Part 2), 2022	IS 15575 (Part 2), 2022		
11.	11. Time of Duration of Noise		:	20 Minutes			
12.	12. Height from Ground Level			4 feet			
13.	13. Sample Monitoring by			Mr. Rohit Haldar			
		RESULT OF NOISE	LEV	EL STUDY		Time :10:30 - 10:50 A.M	
				DAY TIME			
2. Loca	tion : Inside t	he Ferro Division (North Side)					
SI. No.	. Unit	Minimum		Maximum	Leq	Remarks	
		dB(A)		dB(A)	dB(A)		
01.	dB(A)	74.1	79.5		77.59	East Side	
02.	dB(A)	72.5	76.9		75.23	West Side	
03.	dB(A)	73.2	78.0		76.23	North Side	
04.	dB(A)	69.8	73.8		72.25	South Side	
				Average dB(A) Leq	75.32		

**Reviewed By:** 

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**Dy. Quality Manager** 

Approved By:

**Quality Manager** 

>End of Report<

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Overseas	: • UAE • Qatar • Netherlands





#### FORMAT NO. : ENV/FM/53

## TEST REPORT

1. Name of the Industry / Project			:	Eloquent Steel Pvt. Ltd.			
2.	Address			:	Vill Nakrajoria, P.O +	P.S – Salanpur, Dis	trict – PaschimBurdwan
3.	Type of Industry			:	Ferro Alloy and SMS Un	it	
4.	Sampling	Plan & Procedure		1	ENV/SOP/02		
5.	5. Deviation from the Sampling Method & Plan		1		No		
6.	Type of Sa	mple		:	Work Zone Noise		
7.	Sample II			:	ENV/15/Sep/N/III/23-2	24	
8.	Date of St	ıdy		:	12/09/2023		
9.	Reporting	Date		:	18/09/2023	1 ( A A A	
10.	0. Method No.			;	IS 15575 (Part 2), 2022		
11.	11. Time of Duration of Noise			:	20 Minutes		
12.	12. Height from Ground Level			:	4 feet		
13. Sample Monitoring by					Mr. Rohit Haldar		
RESULT OF NOISE L			ISE LE	VE	LSTUDY		Time :11:00 - 11:20A.M
					DAY TIME		
3. Loc	ation : Insid	e the Ferro Division (South Side)					
SI. N	o. Unit	Minimum			Maximum	Leq	Remarks
		dB(A)			dB(A)	dB(A)	
01.	dB(A	70.8			75.6	73.83	East Side
02.	dB(A	72.4			76.8	75.13	West Side
03.	dB(A	74.3			77.5	76.19	North Side
04.	04. dB(A) 71.2				73.5	72.50	South Side
					Average dB(A) Leq	74.41	

**Reviewed By:** 

**Dy. Quality Manager** 

Approved By:

**Quality Manager** 

>End of Report<

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#### FORMAT NO. : ENV/FM/53

# TEST REPORT

1.	Name of the Industry / Project			Eloquent Steel Pvt. Ltd.	8	11			
2.	Address			Vill Nakrajoria, P.O +	P.S - Salanpur, Dis	strict – PaschimBurdwan			
3.	Type of Indus	try	:	Ferro Alloy and SMS Un	it				
4.	Sampling Plan	n & Procedure		ENV/SOP/02					
5.	<b>Deviation</b> from	n the Sampling Method & Plan	1	No					
6.	Type of Samp	le		Work Zone Noise					
7.	Sample ID		:	ENV/15/Sep/N/IV/23-2	24				
8.	<b>Date of Study</b>		:	12/09/2023					
9.	<b>Reporting Dat</b>	te	:	18/09/2023	- A				
10.	). Method No.			IS 15575 (Part 2), 2022					
11.	Time of Durat	tion of Noise	:	20 Minutes					
12.	Height from Ground Level			4 feet					
13.	Sample Monit	oring by		Mr. Rohit Haldar					
		RESULT OF NOISE	LEVE	EVEL STUDY   Time :11:30 - 11:50A.M					
				DAY TIME					
4. Loca	tion : Near MR	Р							
Sl. No	. Unit	Minimum dB(A)		Maximum dB(A)	Leq dB(A)	Remarks			
01.	dB(A)	70.5		72.6	71.68	East Side			
02.	dB(A)	69.3		71.8	70.73	West Side			
03.	dB(A)	75.5		77.2	76.43	North Side			
04.	dB(A)	70.4		74.9	73.21	South Side			
				Average dB(A) Leq	73.01				

# **Reviewed By:**

Johnka

Dy. Quality Manager

**Approved By:** 

**Quality Manager** 

>End of Report<

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<b>Branch Offic</b>	e : • Siliguri • Haldia • Durgapur • Dhanbad • Gangtok • Port Blair • Dehradun • New Delhi
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# **ANNEXURE-14**

(Carbon Footprint & Carbon Sequestration Report.)

# **ELOQUENT STEEL PRIVATE LIMITED**

# STUDY REPORT







CARBON SEQUESTRATION





# CARBON FOOTPRINT & CARBON SEQUESTRATION

Expansion of SMS for 336,000TPA Billet Production along with installation of Rolling Mill for production of 210,000TPA Rolled Product, Installation of 150,000TPA Briquette Plant, 108000TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnaces

# CARBON FOOTPRINT AND CARBON SEQUESTRATION STUDY

# 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  $CO_2$  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  $CO_2$  emissions reductions, expanding international co-operation and developing supporting infrastructure.

In this report, the carbon footprints from different factors of Eloquent Steel Private Limited (ESPL) will be determined and the carbon sequestration data from the units will be accessed to have an insight on annual carbon emissions from the works. 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.

Eloquent Steel Private Limited has relied on following reference for arriving  $CO_2$  Emission Factors for steel industry

- 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;), the CO<sub>2</sub> emissions are calculated and carbon footprints are tracked in the unit.
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3, Industrial Processes and Product Use

# **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 CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O 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.

# **Overall Carbon footprint finding after completion of expansion projects**

Following is the Division wise carbon emission calculations from Eloquent Steel Private Limited based on the emission factors.

## 1. Induction Furnace

Following table shows the  $CO_2$  emissions from the induction furnace operation after proposed expansion.

Unit	Required Raw Materials	Quantity (TPA)	Carbon Content (W/W)	Total Carbon (TPA)	Carbon Retained in Billet (TPA)	Carbon Burnt (TPA)	CO2e Emissions after proposed expansion of the plant (TPA)
SMS	Pig Iron	65,684	0.04	2627			
(1F-6x81) & 2x25 T)	Sponge Iron	3,00,125	0.015	4502			
production	Ferro Alloys	4,116	0.02	82	504	7574.075	27,796.86
3,36,000	Scrap	43,326	0.020	867			
	Tot	tal		8078.075			

Table 1: CO2 e Emission from SMS Division

# 2. Rolling Mill Division

# Reheating Furnace

Following table shows the  $CO_2$  emissions from the reheating furnace operation using LDO or LSHS as Fuel for the proposed plant. The production for this unit is taken considering 10% production of rolled products through Reheating furnace and rest production (90%) through hot charging directly from SMS to rolling mills.

Unit	Fuel Type	Quantity (KL/Year)	Quantity (Kg/Year)	Heat Value	Total Heat Generation (Kcal)	Total Heat Generation (mmBTU)	Emission Factor (T/mmBTU)	CO2e Emission (TPA)
Reheating Furnace	LSHS	735	712.95	10550	7521622.50	29.83	72.93	2,175

Table 2: CO2 e Emission from Rolling Mill Division

# 3. <u>Ferro Division</u>

Following table shows the  $CO_2$  emissions from the induction furnace operation after proposed expansion.

Unit	Product	Quantity (TPA)	Emission Factor (T/T)	CO2e Emission (TPA)
	Fe-Mn	59,052	1.3	76767.6
	Si-Mn	43,236	1.4	60530.4
SEAF	Fe-Cr	59,052	1.3	76767.6
(3X/.5 MVA & 1x5 5 MVA)	Fe-Si	22,680	2.5	56700.0
1X3.3 IVI V A)	Fe-Si-Cr	33,480	1.4	47516.9
	Pig Iron	76,400	1.4	1,03,306.1

Table 3: CO2 e Emission from SEAF

# Table 2: CO2 e Emission from Sinter Plant

Unit	Product	Quantity (TPA)	Emission Factor (T/T)	CO2e Emission (TPA)
Sinter Plant	Sinter	1,08,000	0.2	21,600

 Table 5: CO2 e Emission from Briquetting Plant

Unit	Fuel Type	Quantity (KL/Year)	Quantity (Kg/Year)	Heat Value	Total Heat Generation (Kcal)	Total Heat Generation (mmBTU)	Emission Factor	CO2e Emission
Briquetting Plant	LSHS	1911.60	1954.25	10550	19562358.60	77.58	72.93	5,658

Thus, the cumulative CO<sub>2</sub>e emitted from the project after proposed expansion with sum of table 1-5 is *1,60,535.96 tons CO<sub>2</sub>e/Annum*.

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

# Mitigation measures to reduce Carbon Footprints

With the growing concern over climate change, steel makers are faced with the challenge of finding ways of lowering  $CO_2$  emissions without seriously undermining process efficiency or considerably adding to costs. The iron and steel industry are the largest industrial source of  $CO_2$  emissions due to the energy intensity of steel production, its reliance on carbon-based fuels and reductants.

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

- Energy Monitoring & Management System
- Secondary Fume Extraction System in Steel Melting Shop
- Regenerative Burners in Re-heating Furnaces of Rolling Mills

- Hot charging process of continuously cast products at higher temperature directly to Rolling Mills
- Direct Rolling Process eliminating the need for Re-heating furnaces
- Adoption of Variable Voltage Variable Frequency (VVVF) Drives for high capacity electric motors
- > Minimising energy consumption and improving the energy efficiency of the process
- Changing to a fuel and/or reducing agent with a lower CO2 emission factor;
- > Capturing the CO2 and storing it underground.
- > Sufficient and affordable renewable energy needs to be implemented in the industry
- Installing state of art cleaner technologies
- Afforestation and Plantation
- Metallurgical wastes (Slag, Sludge, scales, fines, dust) into Sintering contributes significantly for reducing carbon dioxide emissions
- Availability of supporting infrastructure (Carbon capture and storage (CCS) and Hydrogen networks) needs to be accelerated, especially for industries, to support the transition to lowcarbon/carbon neutral technologies
- Supporting the deployment of Digital Product Passports (DPPs) in the downstream products and applications of steel (e.g., in construction and transportation industries) can improve the process of steel recovery and reuse. The design of DPPs usually contains product related information by manufacturers, including instructions on disassembly and dismantling. If followed correctly during the recycling or end-of-life phase of steel products, steel recovery rates can be enhanced.
- The continuation and reinforcement of the promotion of sustainable means of transport for commuters, such as bicycles, public transport and, most of all, car-pooling would contribute to reducing carbon emissions

# IMMEDIATE MEASURES TO BE TAKEN BY ELOQUENT STEEL PRIVATE LIMITED

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

- > Direct hot charging of billets from SMS to rolling mill.
- Only 01 no. Re-heating Furnace as backup support. Company shall always prefer direct hot charging of billets from SMS to rolling mills
- > Promoting minimum use of vehicles during plant visit.
- Installation solar light system on the roof top of administrative building for office lighting purpose.
- > Increasing afforestation in and around the factory premises.

## Attempts to reduce Carbon emission/to bring down Carbon intensity

Eloquent Steel Private Limited shall prefer direct charging of hot billets to rolling mills from SMS. This attempt will remarkably reduce dependency on Re-heating furnace and burning of fossil fuel like LSHS/LDO and consequently reduce the CO<sub>2</sub> emission. These moves should be considered as its positive attempts to bring down Carbon intensity.

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

# Carbon Sequestration

Carbon sequestration is defined as the removal of carbon dioxide from the atmosphere and storage in a system. Carbon sequestration is gaining its importance in carbon credit and trading. Identification of many CDM (Clean Development Mechanism) projects has offered special flexibility and relevance in the carbon reduction and has helped improve the national economy. These projects have estimated the quantity of carbon in various systems and their dynamics associated with it. With these estimations, several strategies and formulations have evolved quantifying and reducing the carbon foot print.

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

# Estimation of Carbon Sequestration Potential of trees

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



# Methodology for Carbon Sequestration from Trees

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

Basal area  $(m^2) = (GBH)^2/4\pi$ Bio-volume  $(m^3) =$  Basal area x Height of the tree AGB (kg) = Bio-volume x Wood density  $(kg/m^3)$ BGB (kg) = AGB x 0.26 (Where 0.26 = Root to Shoot ratio) Total Biomass (TB) in kg/tree = AGB + BGB Total Carbon Sequestered (TC) in kg/tree = TB/2

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

CO2e = (TC x 44)/12

Where, 44 and 12 are the molecular and atomic weight of CO<sub>2</sub> and C, respectively.

Eloquent Steel Pvt. Ltd. has cover 33% (3.0 ha.) land of total project area with plantation 7150 plants. The company shall 600 more plantation in the plant existing premises for gap filling.

Further, company has proposed plantation of 4000 nos. plant in surrounding area of the factory at different location as social forestry mission, which shall also be considered for carbon sequestration study.

# Therefore, Total plantation will be 7,750 + 4,000 = 11,750 tress.

The Carbon sequestration by plantation study is provided in following table:

# CARBON SEQUESTRATION THROUGH GREENBELT DEVELOPMENT IN AND AROUND THE PLANT PREMISES OF ELOQUENT STEEL PRIVATE LIMITED

Sl. No.	Plant Specices	Local Name	Periphery (cm.)	Basal Area (M2)	Height (M)	Basal Volume (M3)	Density (Kg/M3)	AGB (Kg)	BGB (Kg)	TB (Kg)	TC (Kg)	CO2e (Kg)	No. Tree	Total CO2e (Kg)
1	Azadirachta indica	Neem	68	0.037	6.5	0.239	900	215.37	56.00	271.37	135.68	497.50	158	78,606
2	Polyalthia longifoila	Debdaru	30	0.007	4	0.029	875	25.08	6.52	31.60	15.80	57.93	193	11,181
3	Acacia auriculiformis	Sonajhuri	48	0.018	5	0.092	625	57.32	14.90	72.23	36.11	132.42	525	69,521
4	Dalbergia sissoo	Shishu	59	0.028	8	0.222	800	177.38	46.12	223.49	111.75	409.74	980	4,01,543
5	Ficus benghalensis	Bot	78	0.048	7	0.339	700	237.35	61.71	299.07	149.53	548.29	125	68,536
6	Ficus religiosa	Peepal	95	0.072	10	0.719	700	502.99	130.78	633.76	316.88	1161.90	140	1,62,666
7	Anthocephalus cadamba	Kadam	59	0.028	6	0.166	600	99.77	25.94	125.72	62.86	230.48	120	27,657
8	Mimusops elengi	Bakul	58	0.027	3.5	0.094	1008	94.49	24.57	119.06	59.53	218.28	250	54,569
9	Albizzia lebbeck	Sreesh	85	0.058	8	0.460	630	289.92	75.38	365.30	182.65	669.72	940	6,29,533
10	Cono Carpus	Cono Carpus	54	0.023	7	0.163	580	94.26	24.51	118.77	59.38	217.74	1410	3,07,012
11	Caesalpinia pulcherrima	Radhachura	64	0.033	4.5	0.147	530	77.78	20.22	98.00	49.00	179.67	890	1,59,904
12	Delonix regia	Krishnachura	54	0.023	4.5	0.104	510	53.28	13.85	67.14	33.57	123.08	210	25,847
13	Lagerstroemia speciosa	Jarul	45	0.016	3	0.048	700	33.86	8.80	42.66	21.33	78.21	140	10,950
14	Millettia pinnata	Karanj	61	0.030	4	0.119	680	80.58	20.95	101.53	50.77	186.14	945	1,75,907
15	Eucalyptus globulus	Eucalyptus	48	0.018	8	0.147	582	85.41	22.21	107.62	53.81	197.30	165	32,554
16	Alstonia scholaris	Chhatim	72	0.041	4	0.165	700	115.57	30.05	145.61	72.81	266.96	120	32,035
17	Wodyetiabifurcata	Fox Tail Palm	45	0.016	2.8	0.045	540	24.38	6.34	30.72	15.36	56.31	28	1,577
18	Artocarpus heterophyllus	Katahal	68	0.037	4.5	0.166	600	99.40	25.84	125.25	62.62	229.62	45	10,333
19	Syzgiumcumini	Jamun	68	0.037	4.2	0.155	700	108.24	28.14	136.38	68.19	250.03	165	41,255
20	Terminalia arjuna	Arjun	68	0.037	7	0.258	750	193.28	50.25	243.53	121.77	446.48	125	55,810
21	Areca catechu	Areca	68	0.037	3	0.110	880	97.19	25.27	122.46	61.23	224.51	125	28,064
22	Tecoma stans	Ttikoma	68	0.037	3	0.110	580	64.06	16.66	80.71	40.36	147.98	15	2,220
23	Swietenia	Mehguni	68	0.037	5	0.184	750	138.06	35.89	173.95	86.98	318.91	35	11,162
24	Hibiscus rosa-sinensis	Hibiscus	38	0.011	2.5	0.029	700	20.12	5.23	25.35	12.68	46.48	140	6,507
25	Hyophorbe lagenicaulis	Bottle palm	68	0.037	6	0.221	900	198.80	51.69	250.49	125.25	459.23	28	12,859
												TOTAL	8,017	24,17,805

# Total Corban Sequestration by tree plantation shall be 2417805kg or 2417.805 tons CO2e/Annum

ESPL has proposed to install 20 KVA Solar panel produce non-conventional green energy for office auxiliary use. It will be helpful in carbon sequestration as follows shown in Table-7

Capacity of Solar Panel	20KVA			
Av. Power Generation	0.02 MWh			
Power generation in 24 hours	0.48 MWh			
Power generation in a year	175.00MW			
CARBON SEQUESTRATION				
Av Coal consumption per MW	0.90T			
Total Coal consumption for 175 MW	157.50 T			
Total Carbon as FC	105.53 T			
<b>Total</b> CO2e emission Sequestration	387.28T			
Table-7				

From the above tables, it is understood that total  $CO_2e$  sequestration potential from greenbelt development (8017 no. trees) is estimated to be **2417.805** tons  $CO_2e/Annum$ . This number can be increased on yearly basis target to reduce additional  $CO_2e$  emission by planting a greater number of trees over additional area.

In addition to afforestation installation of solar panel shall contribute carbon sequestration 387.28T  $CO_{2e}/Annum$  i.e. more than 01Ton/day. Though it is very less in an industrial scenario but shall be a step forward towards carbon sequestration.

# **Conclusion**

Eloquent Steel Private Limited is committed for reducing the overall Green House Gases and Ambient pollution levels through its cleaner technologies and Ecological development activities. The company is solemnly interested on reducing the carbon emissions by introducing different energy efficient technologies available in Indian market with usages of renewable energy resources,

To conclude, no single option can yield the necessary  $CO_2$  emission reductions but a combination of technologies available can be retrofitted to achieve significant reductions, which is possible after commercial deployment of the same by the Government of India.

If Carbon capture and storage (CCS) plant is implemented then steel plants could become near zero emitters of CO<sub>2</sub>. The commercial viability of CCS partly depends on the price of carbon emissions which is set by government policy. More large-scale demonstration projects, such as the Florange project in France could lead to lower costs in the future. If all technical, financial and cost barriers are overcome, then CCS could be more widely deployed in the steel industry. Developing new technologies, such as the HIsarna process, that are designed to generate a nitrogen-free and  $CO_2$  rich off gas which will make  $CO_2$  capture easier and cheaper.

==<>==

# ANNEXURE-15 (Risk and Disaster Management Plan.)



# **ELOQUENT STEEL & PVT. LTD.**

Vill: Nakrajoria, PO& PS: Salanpur, Dist: Paschim Bardhaman, West Bengal- 713357

# **RISK & DISASTER MANAGEMENT PLAN**



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# Risk and Disaster Management Plan

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# Risk and Disaster Management Plan

#### Introduction:

The project site of M/s Eloquent Steel Pvt. Limited (ESPL) is located at Village: Nakrajoria, PO-Salanpur, District-Pachim Bardhaman in the state of West Bengal having Latitude: 23° 46' 33.06" N & Longitude: 86°51'43.02" E.

Project site of ESPL is well connected by road and rail. The nearest railway station is Salanpur which about 2 km from project site. Nearest Town/City/District Headquarter is Pachim Bardhaman at the distance of 14 km.

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 toemployees.

The safety and protection of people, equipment 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:**

Eloquent Steel Private Limited was incorporated in the year 2012 as per Certificate of Incorporation having Corporate Identity Number U51909WB2012PTC185734, 2012-13 dated 11.09.2012, issued by the Registrar of Companies, Kolkata.

For the purpose of setting up Ferro Alloy Plant, ESPL has acquired two existing Ferro Alloy Plants M/s Hira Concast Ltd and M/s Impex Ferro Steel Ltd., adjacent to each other, located at village: Nakrajoria, P.S. Salanpur, Dist: Paschim Bardhaman, West Bengal and taken possession in November, 2017 and April 2018 respectively and now under the ownership of ESPL a unit of Shakambhari Group who is having vast experience in the line of steel manufacturing.

Presently, the company is having following facilities in operation:

- 3x7.5MVA + 5.5MVA SAF
- 4x7T Induction Furnace with CCM

SHAKAMBHARI GROUP

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# **Risk and Disaster Management Plan**

## **Organizational Structure**





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# Risk and Disaster Management Plan

## **Man Power**

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

## Persons working under various shifts

SL. NO.	SHIFT	PERIOD	AVERAGE EMPLOYMENT/DAY
1.	А	06:00-14:00 Hrs	45
2.	В	14:00-22:00 Hrs	29
3.	С	22:00-06:00 Hrs	30
4.	R		41
5.	G	09:00-18:00 Hrs (Lunch Break: 13:00-14:00 Hrs)	47
		Total	192

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 ESPL

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

Hazards	Source
Fire Hazard	Spillage of fuel oil,
Explosion due to spillage of hot metal coming in contact with water	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(lifting & carrying) Equipment	Connected with all Material Handling Equipments through EOT cranes

### **PROCESS DESCRIPTION (in brief)**

### Ferro Alloys Plant

Generally Ferro Alloys are used for making steels to improve the performance of steel as industrial product.

The Ferro alloys division comprises of following four types of alloys:

- Ferro-Manganese
- Silico-manganese
- Ferro-silicon

The facilities within the ferro alloy plant comprises of the following major units:

- Raw material handling system
- Furnace feeding system
- Submerged Arc Furnace
- Furnace tapping and casting
- Product handling system
- Electrical system



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# Risk and Disaster Management Plan

• Air Pollution Control System

Conveyor system is provided to feed the day bins for different Ferro Alloys Product. Vibrating feeders are located below each ground hopper, which transport the material on a vibratory screen through conveyor. In order to store the materials in individual bunker a reversible shuttle conveyor is provided on top of bunker.

## Furnace feeding system

A conveyor is provided to collect the screened mixture of material from surge hopper on ground level and dump the same in to a feed hopper. The material from this hopper is being collected by a conveyor and transported to the telpher. By way of rotation this telpher gets aligned with charging bins and correction bins, which are located around the circumference of this rotation. Pneumatically operated slide gates are provided in each chute. These gates are operated from the central control desk.

### Submerged arc furnace

Four submerged arc furnaces of capacity 3x7.5 MVA+1x5.5MVA, total 04 SAF have been considered. The furnaces are equipped with charge feeding hoppers, chutes, transformer, electrodesand Air pollution control system.

### Furnace tapping and casting

The furnaces are tapped at an interval of about two and half hours considering eight numbers of heats per day. The tap hole is opened by oxygen lancing. Skimmer tapping arrangement provided to separate slag and metal. The liquid metal is being cast in moulds or in sand bed. The slag from the furnace is collected, cooled and disposed at suitable area allocated for slag disposal.

### Product handling system

The solid cakes are broken in to smaller pieces manually in to required sizes. Suitable adjustment of breaking can change the product sizes to suit customer's requirement.

The products, classified according to sizes and grades of different Ferro Alloys will be stored in the dedicated storage areas. Sized product will be weighted, packed and kept ready for dispatch.

### > 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.



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# **Risk and Disaster Management Plan**

### **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 unit where it is consumed.

SL.	OPERATING	<b>ΔΑΜ/ΜΑΤΕ</b> ΔΙΑΙ ς	MAX. STORAGE CAPACITY	
NO.	UNIT	KAW MATERIALS	(METRIC TONS/MONTH)	
	Ferro Alloys Plant	Mn-ore	20,000 MT	
1.		LAM Coke	12,500 MT	
		Quartz	2000 MT	
		Dolomite	1000 MT	
		Sponge Iron	7500 MT	
2.	Induction Furnace	Pig iron	1800 MT	
		Scrap	2500 MT	
		Ferro Alloy	120 MT	
		coal fines @25%	25 MT	
		ash		

#### Maximum storage of capacity of raw materials

## **ONSITE EMERGENCY PLAN**

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

The detailed study with concern to various possible hazards and their associated processes & equipment's has been identified. The list of these 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 ESPL, the requirements of the On-Site Emergency Plan are addressed due to fire hazard only.

This On-Site Emergency Plan is prepared for Eloquent Steel Pvt. Ltd in accordance with the guidelines provided by the Ministry of Environment & Forests& Climate Change (MoEF& CC), Govt. of India, covering the various hazardous processes and the bulk storages of hazardous materials etc., in different departments.



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# Risk and Disaster Management Plan

## 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 of 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:

Type of	Areas	Preventive / Mitigation measures
Hazard		
Fire	SAF & Induction Furnace and Store	Regular monitoring being done to check out the leakage/spillage if any. Fire protection measures (Foam Trolley, DCP cylinder and hydrant system) are provided. Area is as "No Smoking Zone". Sufficient space and barricading are provided with restriction of un-authorized persons movement in the area.
Dust	Raw material handling & storage yard	Raw materials are transported in the trucks with tarpaulin covers. Raw materials like sponge iron and coke are kept under the shed and other like Mn-ore 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 are properly covered. PPEs like nose mask, safety helmet, safety shoes and safety goggles are provided to persons, deployed for working in this area.
Noise	Blower house, Air compressor house, DG & Pump houses.	Equipment's are suitably covered in building with adequate ventilation, Silent type DG sets are provided to attenuate the noise level against outside exposure and area keeps generally unmanned, however working personnel are provided with ear plugs and ear muffs during inspections.
Heat Exposure	Ferro Alloys & SMS	Providing proper PPE like leg guards with shoes, Face shield, leather hand gloves, Leather/Asbestos Aprons, helmets etc. cooling fans, air blower etc.
Acid exposure	Laboratory	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 victim.

#### **ANTICIPATED HAZARD SCENARIO:**



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# Risk and Disaster Management Plan

## **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 fire hazard which may take place during opening of tape hole of SAF and carrying hot metal in induction Furnace to CCM. Whenever the HSD comes in contact with flame or it may auto ignite at 225 °C temperature. Flash point of HSD is 66°C and it is not a flammable liquid. Tank fire spreads vertically taking a conical shape due to rush of air from all directions.

Since the suitable firefighting system are provided to control emergency situations. On the basis of above consideration, identified fire hazard or the pool fire due to fire hazard in the storage tank is not considered as most credible scenario.

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

#### **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 Incident Controller.
- Site Incident Controller.
- Works Main 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 SAF 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).



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- > 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 Director 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 30-45minutes 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**

# 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



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- 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.
- 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 role 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 Asansol
- Send communications to District Hospital Paschim Bardhaman at Asansol for rendering services.



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# **Risk and Disaster Management Plan**

- Inform the relatives of causalities and send them to their residence or hospital as the case maybe.
- > Take care of visit of the authorities to the Emergency site.
- Give feed back to work main controller (WMC) about the status with respect to his areas of activities.

## ACTION PLAN FOR RISK AND DISASTER MANAGEMENT

SL. NO.	INITIATOR	ACTION TO TAKE	
1.	The person noticing the emergency	• Inform the Security Gate and concerned Shift-in-charge immediately. Shift-in-charge will inform immediately to Comba Team Leader of concerned area.	
2.	Combat team Leader (CTL)	<ul> <li>Inform Site Incident Controller (SIC) and rush to spot and organize his team.</li> <li>Take charge of the situation, arrange for firefighting and medical first-aid available at site.</li> <li>To start combating, shut-down equipments, arrest the leakage of gas/fire.</li> </ul>	
3.	Site Incident Controller (SIC)	<ul> <li>Inform works Main Controller (WMC) and rush to emergency site.</li> <li>Discuss with Combat Team Leader (CTL), assesses the situation and call the Rescue Team Leader (RTL) &amp; Auxiliary Team Leader (ATL).</li> <li>Organize the Rescue Team and Auxiliary Team and send the rescue Team to site.</li> <li>Arrange to evacuate the unwanted persons and call for additional help.</li> <li>Pass information to the works main controller (WMC) periodically about the position at site.</li> </ul>	
4.	Works main Controller (WMC	<ul> <li>Rush to emergency site and observe the ongoing activities.</li> <li>Take stock of the situation in consultation with the SIC.</li> <li>Move to Emergency Control Room.</li> <li>Take decision on declaration of emergency.</li> <li>Advise Auxiliary Team Leader to inform the statutory authorities and seek help of mutual aid from partners as required.</li> <li>Decide on declaration of cessation of emergency.</li> <li>Ensure that the emergency operations are recorded chronologically.</li> </ul>	
5.	Rescue Team Leader (RTL)	<ul> <li>Consult with Site incident controller (SIC) and organize his team with amenities to arrest firefighting and medical treatment.</li> <li>Rush to Emergency Site through safe route along with the team members.</li> <li>Arrange to set off the fire by firefighting equipments and hydrant points to arrest the fire or to evacuate the area.</li> <li>Shift the injured persons to hospital by ambulance after providing necessary first aid.</li> <li>To inform the auxiliary team Leader for necessary help from</li> </ul>	



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SL. NO.	INITIATOR	ACTION TO TAKE
		mutual aid Partners.
6.	Auxiliary Team (ATL)	<ul> <li>On being directed by works main Controller (WMC) informs about the emergency to statutory authorities.</li> <li>Seek help of Mutual Aid partners and Coordinate with Mutual Aid partners to render their services.</li> <li>Arrange to inform the relatives of casualties.</li> <li>Take care of visit of the authorities to the emergency site.</li> </ul>
7.	Team members	Each of the team members should follow the instruction of concerned team leader to mitigate the emergency.

## Salient Hour Command Structure

- The Senior Officers/ Key Persons of the plant remain during day time i.e. 8A.M. to 8P.M. Hence the timing of 8P.M. to 8A.M. is considered as silent 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 silent 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 silent hour shall be same as during normal hour, however, during the silent 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.

# ACTIVATION & CLOSING PROCEDURE FOR ON-SITEEMERGENCYACTIVATION 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 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 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 stock 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.
- Twenty seconds with a pause of five seconds for 5 times for fire Accident.



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- Thirty seconds with a pause of five seconds for 5 times for leakage of gas.
- Rescue Team Leader (RTL) shall mobilize fire-fighting and medical resources to site and shall assist (Site incident Controller) SIC.
- 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 EMERGENCYPLAN:

#### **Assembly Point**

In any emergency it will be necessary to evacuate people from affected zones orthe 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 four assembly points have been marked in four different areas these are:

1- Near Administrative Building (Assembly Point-1)

- 2- Near OHC Area (Assembly Point-2)
- 3- Between SMS & Ferro Metal Yard (Assembly Point-3)

4- Near Plant Main Gate (Assembly Point-4)

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 inside plant and near administrative building.

#### **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.

### **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 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.



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# Risk and Disaster Management Plan

- Relevant material safety data sheet.
- Emergency Control Room Register.
- First Aid Box with antidotes.
- Required personal protective equipment's with self-carrying breathing apparatus.

## **Fire Extinguishers**

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

#### **Fire Buckets**

Fire buckets filled with dry sand are provided in different locations of the plant.

#### Siren

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

#### Communication

Public address system and EPABX telephone are available for effective communication inside the plant. Telephone directory is available in all the departments.

#### Dispensary

An organized First-aid centre with ambulance, stretchers, oxygen cylinder etc. is placed inside the factory. The First-aid centre is manned by one Doctor/pharmacist and one attendant. An external Ambulance service is hired to meet emergency situation. The first-aid center is manned round the clock. In the case of emergency, affected employees are being referred to nearby Govt. hospital at Pithaikeyari Block Hospital or Asansol as required and in serious case to the hospital tied up with the company.

### **First Aid Box**

Company has provided First Aid boxes with required first aid medicines at different locations inside the plant to address minor injuries. First aid boxes are checked by the pharmacists once in a month & and medicines are filled/replaced. The first aid boxes are provided in the following locations:

SAF, Administrative building, SMS and Security Office.



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# Risk and Disaster Management Plan

## DISASTER MANAGENENTPLAN

## 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 biodiversity 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 mitigative 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 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.
- $\checkmark$  Effective rehabilitation of the affected persons and prevention of damage to property.

#### **Elements of DMP:**

In order to effectively achieve the above mentioned objectives, the critical elements of the DMP are:

- 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.



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# Risk and Disaster Management Plan

- Effective notification and communication facilities.
- Proper training of the concerned personnel.
- Regular review and updating of the DMP.

The DMP has been opened up with a foreword duly signed by the plant-in-charge.

## **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 annualy.

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.





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# Risk and Disaster Management Plan

# **TELEPHONE NUMBERS OF EMERGENCY COMMAND TEAM**

Sl	Name	Position in Team	Mob. Number
No.			
1	Mr. K Venkateswara Rao	Works Main Controller (WMC)	9963237076
2	Mr. Kartick Chandra Pan	Site Incident Controller (SIC)	9378363100
3	Mr. Jai Prakash Singh		9832889395
4	Mr. M. Chattopadhaya	Auxiliary Team Leader (ATL)	8367850085
5	Mr. T. N. Patro		9233340408
6	Mr. Sanjay Kumar Singh		6204366508
7	Mr. R. K. Mishra		8695621900
8	Mr. Abhijit Ghosh	Combat Team Leader (CTL)	8170003749
9	Mr. Chandan Chakraborty		8373819925
10	Mr. Anand K Burnwal		9572564278
11	Mr. Partha Chakraborty	Rescue Team Leader (RTL)	8250708382
12	Mr. Jagannath Bera		9775293539

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

Sl	Name	Mob. Number	PAX. No.
No.			
1	Factory Main Gate	7605089199	
2	Factory Security In-charge	7605089199	
3	Factory Medical Unit/Ambulance	7605089103	
4	Govt. Ambulance Service	101	
5	Factory Safety officer	7605089168	
6	District Magistrate Paschim Bardhaman	-	0341-2554545
7	Superintendent of Police	-	0341-2257962
8	Additional Superintend of Police, Asansol	-	0341-2252640
9	Asansol Police Control	-	0341-2203287
10	Chief Medical Officer	9474782394	
11	Sub Divisional Hospital, Asansol	-	0341-2252176
12	ADM (G),	-	0341-2253010
13	OC Disaster Management	8777860955	
14	Dy. Chief Inspector of Factories	9433649808	0341-2252644
15	Sub Divisional Officer, Asansol		0341-2252222
16	Fire Station Raghnathpur	8584027313/314	03251-203550
17	Fire Station Asansol	-	0341-2304506
18	Asansol District Hospital	-	0341-2304040
19	Pithaikeyari Block Hospital	7547945591	-
20	Pithaikeyari, BMHO	9547687716	-
21	Police Station Salanpur	-	0341-2531118

# ANNEXURE-16 (Employees' Health Check-up Report)
















# ANNEXURE-17 (EC Newspaper Advertisement)



#### नाजरतना महस्र

## দুই চৈতন্য, বহুমাত্রিক



বাংগাৰ মাৱালালা মারিনর প্রালদের প্রথম প্রথম রিনি। মায় খেলে গঠিশো বছর মহেগ। ইটিফেন্যাসেন। মার সেই পালামানের মাজিককে বহুলাপে কায়ে লাগিয়েই দৈরদের করণকে হতে প্রার্থিয়াবের প্রেটা চালাল 'বাবেশপুর সালাল', তাদের 'বৈরনা' বার্টো। বেধানে পিরত্যের এই সন্ধান আধুনির সালাকেই বৃত্তাঃ।

#### নমটি মূখোপাধ্যায়

মন্দ্ৰীয়ে ভাতনায় মহেন্দ্ৰ উদৈয়ানৰ মান্দায়েক নাজ্য মহে গৱে উঠাহ, তথ্য কাৰ্কা মহে তেনা কাৰ্বাকে যে, এই নাটা মানাৰ গাবে মানানো কৰিলে। ৰায়াবেলা কিম মন লগে মানানা লোগে উপনেজে কিনি মটাবুলি মনিব বিশ্বা মুখ দিয়েন ৫০ বৃত্তিবারের পর্যায়ে হারি ব্যক্তার ৫খনে পার্টিয়েন্ট ৫বং একেরে বাঁর কান্দ্রে এবং রাষ্টেইছিল। একসিরে পুলায়ে রাগ্রহানার পরিয়ে লেখনে রেইনি লৈগেরেল এক্সি করেবার ধর্মি রেই কারেন হিনি কারে। হারার দিয়ে ইকারের পেঁরে প্রধান finite microson motion and micro-period and the second models and the second second motion of the second seco

नित्रात सम्राज्ये मृत्य वित्रितः त्यत्रव्युवतः स्वतः व मनिश्च मध् पुरे सिथनितः वीत्रावः कारण्यास्य त्यवतः पुर गतितः प्रमातनः त्रान् प्रयोग की भीन रात्र प्रेयंत्र कर जा संस्थित जा था। सामग्र प्रयोग की भीन रात्र प्रेयंत्र कर जा संस्थित जा था।

থকা কাল্যাত ধনি নাল বহু কাল্যা ধনা প্ৰাৰ্থাকে যে নালাৰ প্ৰথমান পালাৰ জনা বিদ্যু মান্টা স্মান্চাৰ হয়েনে মাত্ৰ সুনিয় পালাৰ কাল্যাত প্ৰথমানৰ বিদ্যা মান্দ্ৰাৰ মান্দ্ৰাৰ বিদ্যালয় কাল্যা প্ৰথম কাল্যাক প্ৰত্যাক প্ৰথমানৰ বিদ্যা কাল্যিক মান্দাৰ আৰু প্ৰথমান প্ৰথম প্ৰথমান মান্দ্ৰাৰ কিন্তু মান্দ্ৰাৰ বিদ্যু মান্দাৰ প্ৰথম প্ৰথমান মান্দ্ৰাৰ কাল্যা মান্দ্ৰাৰ বুলুৱানা কৰিবেলে গাঁৱতেলৈ পাছ প্ৰাৰ্থাক মান্দ্ৰাৰ মান্দ্ৰাৰ কেন্দ্ৰাৰ বিদ্যা মান্দা পৰিচাৰৰ জুলিয় মান্দ্ৰ। বিদ্যাহা মান্দ্ৰাৰা বুলিয়াকে কিন্তা পৰিচাৰৰ জুলিয় মান্দ্ৰ। বিদ্যাহা মান্দ্ৰ আনুলৈ মান্দ্ৰাৰ বিনিহা



fpfetts fage betree are store modes webs মন্দ্রনা হজে। উপস্থিত ছিলেন বিজয় খেলে, নায় চজপরী, মালকসন্দা নায়, বিশ্বাস নায়, নাস্থায় কর্নায়ার বিরাপেরুয়ায় নিয তথ্য অনুষ্ঠান স্থানাম মূৰিবাংকিয় বজা, তাল কংচনায় অভিযানকটিন, চাঙ্গে পড়াপেনাৰ কটিত নেত এই সাস্থা। গাপাপে বিজয় খোৰ আকায়েনি মঞ্চ পালেনিয় আঁক-এন সঙ্গে পথ চলা তক্ত হয়। গাবে বাজনো নৃত্য পানিবেশন কৰে।



**মামুহির প্রতিবেদনা** বাংমা কট্রিনের ১৫০ জনা পুরি ছিলেনের প্রতিক বিরুদনা প্রদানির মায়েজন বরেয়ে হাজ পুরা এজি জলির ৬ দুশপুন্যা আকার্জনি। আজ মেজে প্রতিকিং মার্হার্থিয়ালা বাংলি ता की गांधनी 5 अन्यतंत्र रूप भी शांधनित्र अहे क्रम्पी भारत तरसार जिंहर रलवा अभी लेकिंगती 9 प्रत्याचीक निकासी तराहत क्रम्पीर प्रवास निवस्ती प्रभूतन कांड बात तरसार विरित्त कांव हान वाहें की क्रम्पीर चेतन्त्र)



অনন্য শিল্পী স্বপন গুপ্ত। তাঁর গান নিয়ে তাঁর বহু ছারছারী, খন্ডনেরা গানে, সূরে খপন-শ্বরণে সমলেত হবেন শিশির মঞ্চে, ১ এপ্রিল। প্রকাশিত হবে স্বপন-স্মারক গ্রন্থ।

#### অলোকপ্রাসাদ চন্ট্রোপাধ্যায

र्तराज्य भूत्रि भय, पत्राप्तर मृत्रि निरंत किंति त्यापालन परिदार्थ पूर्व भा, भारत्य पुत्र मात्र का त्याप्तिक प्रेविक्सीएक वार्यात तता प्रति का त्यापति मात्रा विति त्याप्त केंद्र 2002 का व्यापतिक वार्यात (विति कात प्राप्ता (विति या व्यापतक कांद्र एतन, भीत श्रोवादीकेंस कांद्र (तक कुल राज्य प्रतीक, मात्रावे ) din 5 ארב ענשי כאלד אלדעי ייילל ארב שינגי דאו inter a new of



হট, কালপ্রাই: বিভি চান বাজাহ পা বাঁহ বিশ্ব হারাটো: একমের বিশিষ্ণ হয়ে থান থক কালে কালের্বাঁগে থালবাঁ এই কট বাইতর বাজে হার হারেরে কাল করে ট্রি, রাজন ফার্টেন্ডা বাগরী the per more any an-anny statility

মৃতি যে মাজল কয় এক-এজন মান্যাটাত সংগতে। মৃতি যে মাজল কয় পাঁচাৰ মান্তেই নিশ্বায় যেৰ কাৰে মানুৰু, একমাৰ খান মান্ বাঁচাৰ সংগতী, মহানে মান্বী কয় এক কাৰ মান্যাটাৰ কথা কৰে যেনে মান্দ মান্দা এই বাৰহাটাৰ কথা কৰে মান্দা নাৰি একা কাৰ মান্দাটাৰ পাঁচাৰাৰ মান্দাটোৰ কাৰ মৃতিৰ পাঁচাৰ পাঁচাৰ মান্দা নাৰ্যায় কাৰ মৃতৰ নাঁচা ধাঁচাৰটোৰ। নাম্ব আৰ কাৰ কাৰা মান্দা কৰি ধাঁচাৰটোৰ। নাম্ব আৰ কাৰ কাৰা মান্দা কৰে

त्यातः ३ स्टोरंग स्टिंग २८७ स्टापित १८१ समी इन्द्र-मधानस्य, निम्द्रस्य प्रेतः नीर्टितः क्रान्त

মেন্দ্র, তাঁর চরমাটাত, থাঁর পথ্যু বিশ্বীজনেত, এই "আক্ষয়ের ফলকণ্ড জাতনে বলটি দেই। বিনি জনচেন্দ্র, পের বিশ্বচারে রাজনেতার বাঁরে দেশপোদ বরেরেন সে বিশ্বির, বিনির বিশ্বাস প্রথা প্রকে নিয়ে এই মৃত্যান মালবারী রাগপির তথ্য পরিনিজেরনে 'বিজ্ঞা বারীয় বারিয

माध्य परिदित्तप्रदार दीवन सामा एक परिदित्तप्रदार दीवन सामा इति प्रदार कर दिना पन, प्रभा ताल्व वीक्रमीत प्रदार मान प्रदा त्याप्रपूर विष्ण विषय न्युप्तान्त मान वन स्पूर्वाद मेंद नव विषय न्युप्तान्त मान वन स्पूर्वाद मेंद नव

राण्डवित कर्ष लिटको राज कर्तन क त्वत्र सन्। ततिनितन्त्रत्वा चला चर्चिन चल्लां ते। ततिनितन्त्रत्वा चला चरित्र जन्मते जा "प्रियंत्राण्य प्राप्ता स्वाप्त प्राप्ता आदित्व स्वाप्ता हिंद प्राप्ता स्वाप्त स्वार्थ प्राप्ता स्वाप्ता हात् प्राप्ता स्वाप्त स्वार्थ प्राप्ता स्वाप्ता हात् प्राप्ता स्वाप्त स्वार्थ प्राप्ता स्वाप्ता स्वाप्ता स्वाप्ता राज्य स्वार्थ स्वाप्ता स्वाप्ता स्वाप्ता राज्य स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वार्थ स्वाप्ता संवाप्ता स्वाप्ता स्वाप्ता स्वाप्ता संवाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता संवार्धनात्र सित्रा स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वार्धनात्र सित्र स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वार्धनात्र सित्र स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वार्धनात्र स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता स्वाप्ता

असारण आत कुई जाटा जिन्हा भारति अस्म, १८-२ स्टाल गोरा संपत्रका प्रधानिक प्राप्तकं (प्राप्त भारति) एवटा सारे संपत्तक प्राप्तकं प्राप्तकं (प्राप्त प्रियान, प्रवटान स्राप्तकं तुरुंत प्रतिक सार्वक स्वाप्त स्वाप्त स्वाप्त अपरास, स्वारं द्वित्र सार्वक स्वाप्त स्वाप्त स्वारं स्वारम् स्वारंति स्वाप्तिकं स्वाप्तिकं प्राप्तिकं प्राप्तकं स्वाप्तकं स्वारंति स्वाप्ति स्वाप्तिकं प्राप्तकं प्रधानमं स्वारंत स्वाप्ति स्वापित स्वाप्तकं स्वाप्तकं स्वाप्तकं स्वारंति स्वापित स्वाप्तकं स्वाप्तकं स्वारंत्र स्वाप्त स्वाप्तिकं स्वाप्तकं स्वाप्तकं स्वाप्तकं स्वाप्ति स्वाप्तिकं स्वाप्तकं स्वाप्तकं स्वाप्तकं स्वाप्ति स्वाप्तिकं स्वाप्तकं स्वाप्तकं स्वाप्तकं स्वाप्ति स्वापित स्वाप्तकं स्वाप्तकं स्वाप्तकं स्वाप्त face, who were film.

### জোড়াসাঁকোতে রবির বসন্ত



stafes afferen wer an mit Ser Ross 200 state of why waver an মন্টৰ বুল্ট পাছা। উৰ পাছা ভাগৰা -বৰ মহালেন্দ্ৰ মনুৰিব মাণাৰ্থৰ পাছা ভাগৰা -মহালেন্দ্ৰ মন্ট্ৰাৰ মাণাৰ্থৰ পাছা প্ৰথমিয়া বিষ্ণাৰ মন্দ্ৰৰ এই মন্ট্ৰমাণ সকলা কৰি বুল্লাৰ্থী বিৰুণ মন্দ্ৰিপটাৰ, বুলুৰ পোনা মন্দ্ৰমান্ট পৰী মন্দ্ৰ মন্দ্ৰমান, মন্দ্ৰমান, মন্দ্ৰমানি বিষ্ণা প্ৰথম কিন্তা মন্দ্ৰমান, মন্দ্ৰমান, মন্দ্ৰমানি বিষ্ণা প্ৰথম বিষ্ণাৰ পাছা, মন্দ্ৰমান, মন্দ্ৰমানি বিষ্ণা প্ৰথম বিষ্ণাৰ পাছা, মন্দ্ৰমান, মন্দ্ৰমানি বিষ্ণা প্ৰথম বিষ্ণাৰ পাছা, মন্দ্ৰমান, মন্দ্ৰমানি বিষ্ণা বিষ্ণাৰ পাছা মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান বিয়া বিষ্ণাৰ পাছা মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান বিষ্ণা মন্দ্ৰমান বিষ্ণাৰ মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰ বিষ্ণাৰ বিষ্ণাৰ মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান বিষ্ণাৰ বিষ্ণাৰ মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান বিষ্ণাৰ বিষ্ণাৰ মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান মন্দ্ৰমান पिट कि कि कि पर पर साथ साथ साथ गा जाये। स्व कारण के प्रात्म सावित्य प्रात्म कार्यों, पर कारण करने कारण कार्य कारण्टल सावकार्यालय एव सुप्रेतियों का स्व दे कुट्टवर्डिया सावका कि परियों सुप्राराज प्रतिकार कि परियों के सावका साठा - स्वता कारणा स्वर्थन कि साठ सावका साठा - स्वता कि साठा करित्यात कि कारणा के साठा कारणा साथका निर्णत्य कि कारणा का कारणा।

ignitie flamer gentle, strenges vite अंग्रे भूप्रभारीता आपकृत्रियांत (माठन) विराज प्रतित

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গালে। পুরুষ ও মূলা দুই হুভিমারে মতে মান্যটিন: নিরেমার মুঠিনার নাচ MOV N fices भूपम भाषणिः शिक्षमतं भूभिमातं भारतं भिराम भारतन्त्रीयः दिश्विं (मिल्ला देवरूतः स्त तित श्रे स्वर्थनीयी स्तेतवार निरम्भार भारतं स्त भूपर बार भारतः स्वरूपम् आईराज दुनियतं क्रिमतं प्रतिस्त स्त्रीमत् (स्वरू), तारतं स्त्रा भारतं दुन्दर्भति दुन्दर्भति दिल्म भारतत्व मनि हाइनः स्वरूप भाष्ठते हर्ष्यात्वे त्रिवर्णा electricity), electrica factorie efforte fetter scient cont 1011 1000

अधिकारना गान র্বীন্দ্রনারের বানে নিরেমের পাল <del>ভূম্ব</del>াকের বার समा चांत (पांतत) अत्राव पुत्ती तोता २ जीत पुत्ती ताता। तीत तत्रवाम चतुंतात्राता त्राहारमा यात चानी चाहा देतीत हा। सदल्वमित मात चति तात्र चाराह तत्रवाम दाव चारदार चार्यांते २३ वर्ग NAME OF ALL ADDRESS ADDRE TITLE



### গানের ভুবন অমিয়রঞ্জন বন্দ্যোপাধ্যায় ৯৭ সঙ্গীতাচার্য এখনও স্বমেজাজে সমর্থন ধন্দ্যোগ্যস্থায

new fell an error with भाषा दिन्दि ३.१. भाषात परित्र तथनेथ संय गहरू देशिय गाउँ, पुलि संय गहरू देशिय गाउँ, पुलि संय गहरू देशिय गाउँ, पुलि मार्ग स्वर्थ २.६ विश्व गाउँ स्वर्म भाषा स्वर्थ २.६ विश्व प्रति भाषा, स्वरा भाषा स्वर्थ २.६ विश्व भाषा स्वरा भाषा स्वर्थ २.६ विश्व भाषा स्वरा भाषा स्वर्थ स्वरा प्रति भाषा स्वरा भाषा स्वर्थ स्वरा स्वरा स्वरा दिन्दा भाषा २.४ न्याद स्वराज देशिय মাজ ১০ পারে তেরে এবে বিজেপি এক প্রতিষ্ঠান পার্ব ৫.১ সেরেবারি মিয়া মার্চি ১ মার ফার্যেলিন। পের উপরক্ষে বিভিন্ন পারিয়া মার্চার প্রতিষ্ঠান মার্চার হার্চার প্রতিষ্ঠান, পারিয়ে মার্চার প্রতিষ্ঠান, পারিয়ে মার্চার হার্চার্টারা, মার্চারের মিরার হার্চারার উদ্দিন্দা, নিগ্রতির ম্লানিকান্দা মার্চারের মিরার হার্চার উদ্দিন্দা, নিগ্রতির ম্লানিকান্দা মার্চারের মিরারার উদ্দিন্দা, নিগ্রতির ম্লানিকান্দা মার্চারেরার মিরারারার উদ্দিন্দা, INVESTIGATE MERICIPAL is a vignory only appress

भार महाता तल भार घर तथ गाँधि। प्रायती तरक राज्यान्त्र प्रमुप्ते भारतान्त्र इत्यान प्राय प्रायतीय विषय राज्यात्र। स्वितेश्वा प्रश्नामा एका हार्गि केलिकारणे कोर्थलीयः राज्य पेरस'- के वितर्गत अन्यतान कार्थलीय क कार राष्ट्राप्त मुझि पेरस्या पुरुष प्रयाप्त केलीहर अत्याताना १३ पार पारम् पुरुष प्रयाप्त केलीहर अत्याताना १३ पार पारम् परि कार्य्य प्रसिद्ध केलिक सार कार्यकार ३३ - वन का को कार्य प्रसाद प्रधान वालीहरा, विद्येत गोराज्य प्रता new admit where an issuefs tofe-term গানে ক্ষুত্ৰাৰ প্ৰথম প্ৰতিত সময় হৈছে পদ উল্লেখ্য এইণ কৰচাৰে কাৰ্বজনৰ অভাৱ প্ৰথ জনচেম কৰিবাল পিছ মন্তৃত হেটেপাৰাত উল্লেখ্য উপস্থাপনত অনুষঠে পৰীক্ষিক বিভা অন্যৱহাঁ



মানেকা কয়কে প্রতিয়াল পুর পরিত পারু প্রেপালযোগ কি মানেকের বিনে সে বেজেনে বিনে মুক যাত্র ও করি রাজিলান, রাজিনা কী এল, করি বিজেনেকর যাত্রা মুকে বেজে পুরুষ মেলিল বিনে মুকে বিনার বিনার করি নামুকে প্রের পিছার মেলিল বিনার পরিত প্রতির প্রতিযোগি মানেকে ব্যায় প্রতিযোগে করি নামুকের্বি মানেকে ব্যায় প্রতিযোগে বিনার প্রতিযোগে বাংলাপায়ায়ে রাজ প্রায়াল পরিত প্রতিয়া বাংলাপায়ায়ে রাজ প্রায়াল পরিত প্রতিযোগি মানেকের্বায় বাংলায়ে বিনার প্রতিযোগে বিনার কর্মের হারে মানাল, মেন্দু, মানার লা পানান হারে সির্বায় এলা মানা পুটি গাং মুখ্যম উপালাগা। মানার মনোল মুহালানার মানল মান মন্দের। এনিন ফ্রাইয়ারারে স্বায়নিংগ্র প্রধা মানারে উপাঁরিত Rom (dStancer)

### আবন্ধির আসরে

#### কথাঘরের বর্ণমালা sidesfors a

भाषुनिव स्वतित्रम्थः तरीत भाषां न स्वतः तरीत सन्द्रायः नीतम्बद्धाः स भार साँच कहांग नेपकार करना प्राप्त का प्रवार भारत का कि कहांग करना प्राप्त का प्रवार भारत का कि कि कि कि कहा की स्वयन्त्र साँच मार्ग की स्वयन्त्र सार्ग की 1927 81291

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For Foseco India Lin Place: Pune Date : March 20, 2023

Mahendra Ku	mar Dut
Controller of Accounts & Company	Secreta

Mutual Fund investments are subject to market risks, read all scheme related documents carefully

No. 21, Patullos Road, Chennai 600 002.

**Regd.** Office:

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# ANNEXURE-18



CIN: U51909WB2012PTC185734 | GSTIN: 19AADCE1765F1ZN | PAN: AADCE1766F | State: West Bengal | State Code: 19

Date: 24.03.2023

To,

#### The District Magistrate,

Dist-Paschim Bardhaman

Sub: Information on grant of Environmental Clearance (EC) for the "Amalgamation & Modification cum Expansion by M/s Eloquent Steel Pvt. Ltd. For 336,000 TPA Billet Production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal."

Ref: EC Letter vide F. No. - J-11011/188/2011-IA.II(I), dated 16.03.2023

Dear Sir,

With respect to the subject and above cited reference this to inform that we have obtained Environmental Clearance (EC) from Ministry of Environment, Forest and Climate Change, Govt. of India, vide F. No. J-11011/188/2011-IA.II(I), dated 016.03.2023, for Amalgamation & Modification cum Expansion by M/s Eloquent Steel Pvt. Ltd. For 336,000 TPA Billet Production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal."

In compliance of the directions stipulated in the 'Miscellaneous Condition No. ii' a copy of obtained Environmental Clearance is attached herewith for your kind information and necessary consideration please.

Thanking you and with regards,

For Eloquent Steel Pvt. Limited

(Authorized Signatory)





CIN: U51909WB2012PTC185734 | GSTIN: 19AADCE1766F1ZN | PAN: AADCE1766F | State: West Bengal | State Code: 19

To,

The General Manager,

D.I.C., Paschim Bardhaman.

Sub: Information on grant of Environmental Clearance (EC) for the "Amalgamation & Modification cum Expansion by M/s Eloquent Steel Pvt. Ltd. For 336,000 TPA Billet Production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal."

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In compliance of the directions stipulated in the 'Miscellaneous Condition No. ii' a copy of obtained Environmental Clearance is attached herewith for your kind information and necessary consideration please.

Thanking you and with regards,

For Eloquent Steel Pvt. Limited

(Authorized Signatory)

27-63-2623

Date: 24.03.2023

Received (Contents not Verified) Ann. Ind. Dev. Cell & Sub-FUC . Durs and Durgaçur, Govt. of West Benjal



CIN: US1909WB2012PTC185734 | GSTIN: 19AADCE1766F1ZN | PAN: AADCE1766F | State: West Bengal | State Code, 19

To,

Date: 24.03.2023

The Pradhan

Salanpur Gram Panchayat, Dist-Paschim Bardhaman

Sub: Information on grant of Environmental Clearance (EC) for the "Amalgamation & Modification cum Expansion by M/s Eloquent Steel Pvt. Ltd. For 336,000 TPA Billet Production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal."

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In compliance of the directions stipulated in the 'Miscellaneous Condition No. ii' a copy of obtained Environmental Clearance is attached herewith for your kind information and necessary consideration please.

Thanking you and with regards,

For Eloquent Steel Pvt. Limited

(Authorized Signatory)





CIN: US1909WB2012PTC185734 | GSTIN: 19AADCE1766F1ZN | PAN: AADCE1766F | State: West Bengal | State Code: 19

To,

Date: 24.03.2023

#### The Block Development Officer,

Salanpur Development Block,

Dist-Paschim Bardhaman.

Sub: Information on grant of Environmental Clearance (EC) for the "Amalgamation & Modification cum Expansion by M/s Eloquent Steel Pvt. Ltd. For 336,000 TPA Billet Production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal."

Ref: EC Letter vide F. No. - J-11011/188/2011-IA.II(I), dated 016.03.2023

Dear Sir,

With respect to the subject and above cited reference this to inform that we have obtained Environmental Clearance (EC) from Ministry of Environment, Forest and Climate Change, Govt. of India, vide F. No. J-11011/188/2011-IA.II(I), dated 016.03.2023, for Amalgamation & Modification cum Expansion by M/s Eloquent Steel Pvt. Ltd. For 336,000 TPA Billet Production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal."

In compliance of the directions stipulated in the 'Miscellaneous Condition No. ii' a copy of obtained Environmental Clearance is attached herewith for your kind information and necessary consideration please.

Thanking you and with regards,

For Eloquent Steel Pvt. Limited

(Authorized Signatory)



CIN: U51909WB2012PTC185734 | GSTIN: 19AADCE1766F1ZN | PAN: AADCE1766F | State: West Bengal | State Code: 19

To,

Date: 24.03.2023

The Sub-Divisional Officer,

Asansol Sub-Division,

Dist - Paschim Bardhaman.

Sub: Information on grant of Environmental Clearance (EC) for the "Amalgamation & Modification cum Expansion by M/s Eloquent Steel Pvt. Ltd. For 336,000 TPA Billet Production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal."

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Gash of West Bengal Office Of the . D. M., Asansoi September of Herrichie with



CIN: US1909WB2012PTC185734 | GSTIN: 19AADCE1766F1ZN | PAN: AADCE1766F | State: West Bengal | State Code: 19

To,

Date: 24.03.2023

The Salanpur Panchayat Samity,

Dist - Paschim Bardhaman

Sub: Information on grant of Environmental Clearance (EC) for the "Amalgamation & Modification cum Expansion by M/s Eloquent Steel Pvt. Ltd. For 336,000 TPA Billet Production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal."

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Thanking you and with regards,

For Eloquent Steel Pvt. Limited

(Authorized Signatory)



## ANNEXURE-19 (Environmental data information display)

#### ENVIRONMENTAL DATA INFORMATION DISPLAY BOARD

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