GIRIDHAN METAL PRIVATE LIMITED

Registered Office : "PREMLATA" 39, Shakespeare Sarani, 2nd Floor, Kolkata - 700 017, West Bengal, India
Telefax : +91 33 2289 2734 / 35 / 36, E-mail : giridhanmetal@gmail.com, CIN : U27320WB2019PTC234675

Ref No. GMPL/22-23/MoEF&CC/12 Date: 29.11.2022

To,
Director General of Forest
Integrated Regional Office
Ministry of Environment, Forest & Climate Change
Kolkata IB-198, Sector-III, Salt Lake City, Kolkata-700106

Ref: Ministry's EC No J-11011/366/2010-IA.II (I) dated 8th April, 2021

Sub: Submission of Six Monthly Compliance Report

Respected Sir,

We are submitting herewith the Six Monthly EC Compliance Report as on 30th September 2022 for your kind perusal. The same is being also uploaded on our website www.giridhanmetal.com

Kindly find attached as follows:

1. Point wise Six Monthly Compliance status from 1st April to 30th September 2022
2. Letter from M/s ISGEC Heavy Engineering, Noida on SO_2, NOx reduction (Annexure-1)
3. Affidavit document of our compliance against observations made by regional office (Annexure-2)
4. Latest Environment Monitoring Reports (Annexure-3)
5. Corporate Environment Policy (Annexure-4)
6. Paper cutting of Public Notice regarding EC (Annexure-5)
7. EC granted intimation to local body (Annexure-6)
8. Hazard Identification and Risk Assessment (HIRA) Report (Annexure-7)
9. Environment Statement submitted to State Pollution Control Board (Annexure – 8)
10. MoU with fly ash bricks/paver block manufacturer on fly ash and bed ash (Annexure – 9)

Thanking you.

Yours Sincerely

GIRIDHAN METAL PVT. LTD. Jamuria

Manish Poddar
Giridhan Metal Private Limited
Jamuria Industrial Estate, Paschim Bardhaman, West Bengal
Email: giridhanmetal@gmail.com

CC: Environmental Engineer, West Bengal Pollution Control Board, Asansol Regional Office, K.S.T.P., Dr. B. C. Roy Road, P.O.-Dhadka, Asansol - 713302

GIRIDHAN METAL PRIVATE LIMITED

Jamuria Industrial Estate, Jamuria , Vill-Ikra & Damodarpur, Dist-Paschim Bardhaman, West Bengal

Name of the Project: Expansion of Steel Plant by expanding Sponge Iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,000 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace (SAF) from 15,000 TPA to 30,000 TPA & Captive Power Plant from 16 MW to 42 MW including Waste Heat Recovery Boiler (WHRB) by Giridhan Metal Private Limited at Jamuria Industrial Estate, Village- Ikra & Damodarpur, Tehsil-Jamuria, District-Paschim Bardhaman, West Bengal

Clearance Letter/s No. and date: J-11011/366/2010-IA.II (I) dated 8th April, 2021

Period of Compliance Report: April 2022 to September 2022

Specific Conditions:		
Sl. No.	**Condition**	**Compliance thereof**
i)	Green belt shall be developed in 31.38 acres of land (40%) including the gap filling in the existing green belt with a tree density of 2500 trees per hectare.	Giridhan Metal Private Limited (GMPL) has started the plantation, till date we have planted 17084 nos of trees inside the plant premises. Now we are in project stage, and plantation area is already earmarked, but due to construction activity it is very difficult to keep alive. We are continuing plantation wherever the place is available.
ii)	Closed type Submerged Arc Furnace with 4th hole extraction system shall be installed.	GMPL has installed Closed type Submerged Arc Furnace with 4th hole extraction system.
iii)	1x350 TPD and 1x600 TPD DRI Kiln shall be installed. Remaining DRI Kilns as per existing EC accorded by MoEF&CC shall not be installed and 50 TPD DRI Kiln existing at the site shall be dismantled.	GMPL has got the CTO for 1x350 TPD & 1x600 TPD DRI Kiln from West Bengal Pollution Control Board vide CTO No CO131954 dated 27th July 2021 & CO132190 dated 23rd August 2022 respectively. The 50 TPD DRI kiln has been dismantled.
iv)	Project proponent shall meet the particulate matter emission norms in all stacks less than 30 mg/Nm^3.	Currently DRI, Ferro Alloys & Captive Power Plant are in operation and rests are in construction stage. GMPL has installed 5 fields ESP at 350 TPD DRI, 600 TPD DRI & Captive Power Plant to meet the standard norms and bag filter at Ferro Alloys plant. The emission reports of WBPCB as well as NABL accredited third party laboratory are within the standard norms. The reports are attached herewith as **Annexure - 3**
V)	The Project proponent shall comply with emission norms of PM, SO_X, NO_X and Mercury for captive power plant at stipulated in the gazette notification no. S.O. 3305 (E) dated 7/12/2015.	The conditions of gazette notification no. S.O. 3305 (E) dated 7/12/2015 is being complied. GMPL has analyzed the emission

		parameters by NABL accredited third party & the emission results of PM, SOx, NOx and Mercury is within the standard norms. WBPCB has also taken the samples and the results are with the standard norm. The results are attached herewith as **Annexure - 3**
vi)	PP shall be prepare implement an action plan giving annual improvement targets for resource conservation and environment improvement. This plan shall be monitored by the concerned Regional office of the MoEF & CC	Now we are in project stage, it will be taken care once project will be completed.
vii)	The heat rate of coal based power plant as specified by Central Electricity Authority shall be maintained and monitored	Noted and it is being maintained and monitored in regularly.
viii)	Energy efficient drives, VFD for auxiliary motors and slip power recovery system for motors above 1000 KW shall be provided.	All the motors of above 500 KW are well equipped with VFD, energy efficient drives.
ix)	PTFE Membrane bags shall be used in filter bag house and designed for 150% of normal design air flow.	Noted, and we are following your instruction for every filter bag house.
x)	PP shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system. Shall use Post combustion control system (SCR/SCNR process) with NH_3 monitoring when Ammonia is used.	We have installed De SOx and De NOx system in FBC boiler. M/s ISGEC Heavy Engineering, Noida has assured for the same & SO_2, NOx will be less than permissible standard. The letter is attached herewith as **Annexure-1.**
xi)	Project proponent shall undertake rain water harvesting and recharge the ground water. Level monitoring indicators for online real time measurement of rain water harvesting shall be provided.	We are considering most roofs of the factory premises under rain water harvesting from beginning stage. Now we are in construction stage and it will be complied.
xii)	Treated effluent shall be recycled and reused	Now we are in construction stage and it will be complied
xiii)	Air cooled condensers shall be used in CPP	Air cooled condenser has been installed in captive power plant.
xiv)	All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stockyards shall also have garland drains to trap the run off material.	All stockyards having impervious floor and well equipped with water spray system.
xv)	Jigging and briquetting Plant shall be installed.	Jigging plant has been installed. We are not producing Ferro Chrome; hence briquetting plant is not required.
xvi)	85-90% hot charging of billets shall be done. Balance heating can be done through RHF using LDO/FO as heating fuel.	The Steel Smelting Shop and Rolling Mill are in construction stage. GMPL is planning for hot charging of billets in maximum extent.
xvii)	An affidavit shall be submitted to the Ministry as well as the regional office stating that observations made in the inspection report of Regional Office has been complied within three months from date of issue of the EC.	The affidavit has been made on 27th July 2021, which is attached as **Annexure-2.**

General Conditions		
I. Statutory compliance		
Sl No.	**Condition**	**Compliance thereof**
i)	The Environment Clearance (EC) granted to the project/activity is strictly under the provisions of 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
II. Air quality monitoring and preservation		
i)	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (protection) Act, 1986 and NABL accredited laboratories as revised CPCB guidelines dated August, 2018 REV 01.	We have installed continuous emission monitoring system for 350 DRI & Captive Power Plant. Data connectivity process with CPCB server is under process.
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.	We are monitoring the fugitive emission on quarterly basis by NABL accredited & WBPCB recognized laboratory. The results are attached herewith as **Annexure – 3.**
iii)	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating point including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards	GMPL has provided appropriate air pollution control system in all the dust generating point to comply the stack emission and fugitive emission standard. 1. The 350 TPD 600 TPD DRI is well equipped with 5-fields ESP 2. The CFBC boiler is well equipped with 5-field ESP 3. Ferro Alloys plant is well equipped with modern & pulse jet type, PTFE membrane filter 4. Cooler discharge, surge bin, product separation area, product house area and every junction of DRI unit is well equipped with 02 nos of bag filter to control fugitive emission. 5. Dry fog system has been installed in

		entire coal circuit area to control the fugitive emission.
iv)	The project proponent shall provided leakage detection and mechanized bag cleaning facilities for better operation bag houses.	Mechanized bag cleaning facilities with Purging facility is being adopted for better operation of bag houses. Also we are going adopting TPM (Autonomous Maintenance) in all pollution equipment.
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.	Now we are using iron ore pellet as a raw material for 350 TPD & 600 TPD DRI, so no iron ore fines are generating. Coal and coke fines collected in pollution control devices are being reused in CPP.
vi)	The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.	The entire conveyor (raw materials & products) are covered by canopy and transportation of raw materials & products are also doing in fully covered condition to prevent spillage and fugitive dust generation.
vii)	The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.	Steel Smelting Shop is in construction stage.
viii)	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	The entire raw materials are kept under shed.
ix)	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars	Noted
III.	**Water quality monitoring and preservation**	
i)	The proponent shall install 24×7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R. 414 (E) Dated 30th May 2008;S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) 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.	Now we are in construction stage and it will be complied
ii)	The project proponent shall monitoring regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Now we are in construction stage and it will be complied
iii)	Sewage Treatment Plant shall be provided for treatment of domestic waste water to meet the prescribed standards.	Soak pit is connected with domestic waste water.
iv)	The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277(E) 31st March 2012 (applicable to IF.EAF) as amended from time to time	Now we are in construction stage and it will be complied
IV.	**Noise monitoring and preservation**	

I)	Noise pollution 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.	Noise level survey is being carried out. The reports are attaching herewith in **Annexure – 3.**
V.	**Energy Conservation measures**	
i)	Energy conservation measures may be adopted such as adoption of solar energy and provision of LED light etc., to minimize the energy consumption.	LED lights have been provided at entire offices as well as plant area also.
VI.	**Waste management**	
i)	Used refractories shall be recycled as far as possible.	It will be complied
ii)	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.	The fly ash, generated from CFBC boiler is being used in low land filling at project site inside the plant premises. We have also MoU with fly ash bricks manufacturer like M/s Sri OM Industries, Damdar Ispat Ltd etc. The MoU is attached herewith as **Annexure - 9**
iii)	Dolochar generated from DRI kiln shall be used for power generation.	Dolochar generated from DRI kiln is being used in CFBC boiler for power generation.
iv)	Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.	Now we are in construction stage and it will be complied
v)	Kitchen waste shall be composed or converted to biogas for further use.	We are planning to install biogas plant
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.	After completion of the project we will engage a third party to conduct the programme.
VIII.	**Public hearing and Human health issues**	
i)	Emergency preparedness plan based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan are being implemented. HIRA is attached herewith as **Annexure-7**.
ii)	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Now we are in construction stage and it will be complied
iii)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	Occupational health surveillance of the workers is being done and records maintained as per Factory Act.
IX.	**Corporate Environment Responsibility**	
i)	The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-IA.III dated 30/09/2020.	Agreed & will be complied
ii)	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The	We have a well laid down environmental policy duly approved by the Board of

	environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringement/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.	Directors. The policy is attached herewith as **Annexure-4.**
iii)	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of control of senior Executive, who will report directly to the head of the organization.	It is under planning stage
x.	**Miscellaneous**	
i)	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it in at least two local newspapers of the District of State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	M/s Giridhan Metal Private Limited has make public notice regarding environment clearance on 28th April 2021 in two local news papers "Ei Samay" (vernacular language-bengali) and "Pravat Khabar" (Hindi). The scan copy of paper is attaching herewith as **Annexure – 5.**
ii)	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	The copy of environmental clearance has been submitted to Heads of local bodies of "Asansol Municipal Corporation" and "Asansol Durgapur Development Authority". The letter with speed post documents are attached herewith as **Annexure – 6.**
iii)	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	GMPL comply the same on time
iv)	The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient level as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Agreed & will be complied
v)	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on website of ministry of Environment, Forest and Climate Change at environment clearance portal.	GMPL is being submitted the six monthly compliance report to regional office on time.
vi)	The project proponent shall submit the environment 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.	We have submitted the environment statement to State Pollution Control Board for 2021-22 FY. The environment statement is also attached herewith as **Annexure – 8.**
vii)	The project proponent shall inform the Regional Office as	Shall inform

	well as Ministry, the date of financial closure and final approval of the project by the concern authorities, commencing the land development work and start of production operation by the project.	
viii)	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Agreed and will be comply
ix)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).	Agreed & complied
x)	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Agreed
xi)	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed
xii)	The Ministry reserves the right to stipulate addition conditions if found necessary. The company in the time bound manner shall implement these conditions.	Agreed
xiii)	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing data/ information/ monitoring reports.	Agreed & complied
xiv)	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010	Agreed

ISGEC HEAVY ENGINEERING LTD.
IJT BOILERS
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www.isgec.com

Project Name : M/s. Giridhan Metal Private Limited (JB1171)

Sox formation and it's Reduction method in CFB boiler

Sox formation

Sulfur oxides are the gaseous products of the oxidation of sulfur (mainly from fuel) by oxygen (from combustion air).The primary product of oxidation of the fuel sulfur is SO2.

Descriptions and Features De SO_x System in CFB Technology:

CFB has been proven to be quite effective in the reduction of SO2 emissions. Reduction of SO2 emissions, in CFB is accomplished by the injection of limestone into the furnace. The CFB boiler is suitable for SO2 reduction of 98% with the following features by injecting lime stone in the CFB furnace

- Appropriate Furnace temperature (Typically 870- 910Deg.C) is maintained throughout the furnace which is effective temperature range for better sulphur capture.
- Furnace is designed with adequate height to have adequate gas and sorbent residence time.
- The time of contact between the formed SO2 and the capturing Ca is taken into account via the furnace residence time and the separator
- Limestone feed system is designed to have even distribution of limestone over the furnace cross section.
- Optimum particle size distribution of sorbent (Lime stone) shall be maintained for effective sulphur capture.
- Compact separator of CFB boiler which collects the unburnt solids particle and un reacted limestone particles of size above 63 microns which are sent back to furnace for effective utilization of limestone and capture

Process Description:

- The sorbent (Limestone) is calcined using a small amount of the heat generated by combustion of the fuel and can then react with gaseous sulphur to generate a solid sulphate ($CaSO_4$) which is either captured in the ESP or it is retained in the bed material and removed as bottom ash.
- The primary reactions involved in the generation and reduction of SO_2 emissions with calcium-based sorbents are:
  - ✓ $S + O_2 \rightarrow SO_2$, formation of SO_2
  - ✓ $CaCO_3 + heat \rightarrow CaO + CO_2$, calcination of limestone
  - ✓ $SO_2 + CaO + 2O_2 \rightarrow CaSO_4$, sulphur capture

Due to proven state of art CFB combustion technology with above method, the Sox produced is lesser than the permissible limit.

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Isgec Heavy Engineering Ltd
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Project Name : M/s. Giridhan Metal Private Limited (JB1171)

NOx Emission control in CFB boiler

NOx emissions from CFB boilers are much lower when compared with emissions from other combustion technology.

NOx Formation and it's control method:

- **Combustion temperature** : At higher temperatures (in excess of 1100 °C) a fraction of the nitrogen in the combustion air also reacts with oxygen to form Nox. However, Due to the lower combustion temperature 870 – 910 °C found in fluidized bed combustion as opposed to temperatures in excess of 1100 °C encountered in other combustion systems, very little thermal NOx is formed which will be negligible.

- **Extent of air staging** : Reduction in NOx emissions results from the staged combustion utilized in CFB boilers. Staged combustion will take place effectively by means of Secondary air provided in Front & Rear walls of Combustor with multiple locations to avoid any Nox formation in flue gases.

- **Excess air level** : In addition to the Stoichiometric air required for Combustion of CFB Boilers, excess air is supplied for complete fuel oxidation in order to ensure proper combustion in Furnace to eliminate NOx.

Due to proven state of art CFB combustion technology with above precautions the Nox produced is lesser than the permissible limit.

ISGEC
BOILERS
Isgec Heavy Engineering Ltd
(U. P.) India

पश्चिमबंग पश्चिम बंगाल WEST BENGAL 56AB 940576

Before the Notary
Govt. of West Bengal
Burdwan District
Durgapur

BEFORE THE LD. NOTARY PUBLIC, GOVERNMENT OF WEST BENGAL

AT DURGAPUR.

AFFIDAVIT

I, **Mr. Sanjay Agarwal,** son of Late Om Prakash Agarwal, resident of Flat No. - 4D, Block-9 BD-37, Rabindra Pally, Kestopur, District - North Twenty Four Parganas, West Bengal 700101; the Board of Directors of the **M/s Giridhan Metal Private Limited** having its Registered Office at 39, Shakespeare Sarani, 3rd Floor, P.S. - Shakespeare Sarani, Kolkata – 700017, West Bengal; do here by solemnly affirm and declare as follows :-

NOTARY
Mrs. A Banerjee
Durgapur, Burdwan
Regn. No. 40/2007
Exp. Dt.-21.2.2022
GOVT. OF WEST BENGAL

27 JUL 2021

27 JUL 2021

Serial No. 2001 Date........

Sold to. J. Sarkar 2870

Address........

Value of Stamps.. C.g....

Date of Purchase of this Stamp Paper 24 JUN 2021

from the Treasury........

Name of the Treasury from where

Purchased, DURGAPUR.

Subrata Kumar Chakraborty

Stamp Vendor

A. D. S. R. Office, Durgapur-16

Licence No. 5 of 1989

1. That Environment Clearance issued by the Ministry of Environment, Forest and Climate Change, New Delhi vide letter No. -11011/366/2010-IA. II(I) dated 2nd April 2012 and J-11011/366/2010-IA. II(I) dated 29th January 2020 (Transfer of Environment Clearance from M/s Damodar Ispat Limited. to M/s Giridhan Metal Private Limited) and Environment Clearance validity extension issued on 24th May, 2019 extended till 1st April, 2022 in favour of erstwhile company M/s Damodar Ispat Ltd. and now transferred in the name of our company that is the M/s Giridhan Metal Private Limited having its Registered Office at 39, Shakespeare Sarani, 3rd Floor, P.S. - Shakespeare Sarani, Kolkata – 700017, West Bengal.

2. That the project was monitored by Dr. Tandra Sarkar, Scientist-C, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Kolkata - 700106, West Bengal, India and Dr. Sudeshna Biswas, Research Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Kolkata - 700106, West Bengal, India on 29.01.2021 and during monitoring, I, Shri Sanjay Agarwal, Director, M/s Giridhan Metal Private Limited along with Shri J. N. Mukerjee, HOD (Environment), Shri C. C. Ghosh, Manager (Environment) and other Officials of M/s Giridhan Metal Private Limited were present at the site visit of the project and discussions held during monitoring and the Project Authorities (PAs) provided information accordingly. The Project is under process and is expected to be completed within validity period i.e. before 1st April, 2022.

3. That Certified Compliance Report with some observations issued by Dr. Tandra Sarkar, Scientist-C, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Kolkata - 700106, West Bengal, India vide letter No. 102-410/20/EPE/07 dated 05.02.2021.

4. That I (Shri Sanjay Agarwal, Director, M/s Giridhan Metal Private Limited) am herewith submitting the point wise reply of the observations made by Dr. Tandra Sarkar, Scientist-C, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Kolkata - 700106, West Bengal, India vide letter No. 102-410/20/EPE/07 dated 05.02.2021 as follows:-

SL. NO.	OBSERVATIONS BY REGIONAL OFFICE AND INTEGRATED REGIONAL OFFICE, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE	SUBMISSION ON BEHALF OF M/S GIRIDHAN METAL PRIVATE LIMITED AND PRAYER FOR CONSIDERATION
1.	**Specific condition (v) :** It is mentioned in that dust suppression system and bag filters shall be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points, but it is observed the same is being partially complied by the PA.	The former company had only one 50 TPD DRI production unit. After transfer of EC (Environment Clearance) from M/s Damodar Ispat Limited to M/s Giridhan Metal Private Limited, the new management has stopped the 50 TPD DRI production since 04.02.2020 and the same has been intimated to The Chairman, CPCB and Eastern Regional Office, Ministry of Environment, Forest and Climate Change, Bhubaneswar. The letter is enclosed as Annexure-1. The project is now in construction phase for the present EC and company ensures dust suppression system and bag filters will be installed to control fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.

NOTARY GOVT. OF WEST BENGAL
Mrs. A Banerjee
Durgapur, Burdwan
Regn. No.- 49/2007
Exp. Dt.-21.1.2022

27 JUL 2021

2.	**Specific condition (xvi) :** As proposed, green belt shall be developed in 33% of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO. Though the project proponent has done some plantation along the boundary line of the plant, it is not 33% yet.	33% of the existing plant area i.e., 13.34 acres (5.4 ha) has been earmarked and is being developed under greenbelt & plantation. Presently, 5533 trees i.e. ~1000 trees/ha have been planted. The company has also proposed expansion in their existing EC and as a part of expansion approx. 40% of the total plant area i.e. 31.38 acres (12.7 ha) will be developed under greenbelt & plantation by planting trees to the tune of 2500 trees/ha. Plantation schedule is enclosed as Annexure 2.
3.	**General condition (xi) :** The copy of the letter with respect to environment clearance letter marked to concerned Panchayat, Zila Parishad, Municipal Corporation / Urban Local Body, local NGO may be submitted to the Regional Office, Kolkata.	After taking over the assets of the former company, GMPL could not locate the submission receipts of letter w.r.t. EC marked to concerned authority. The company ensures that on receipt of Environment Clearance of proposed expansion the letter will be positively marked to concerned Panchayat, Zila Parishad, Municipal Corporation/Urban Local Body, local NGO may be submitted to the Regional Office, Kolkata.

5. That by virtue of this Affidavit, may consider my prayer in view of above submissions, kindly issue us a formal closure report on the observations marked in issued Certified Compliance Report.

6. That on behalf of the company assures to abide by the Rules & Regulations w.r.t. Environment and to comply all conditions stipulated in our Environment Clearance issued by Ministry of Environment, Forest and Climate Change, New Delhi.

7. That we hereby further state that we know that relying on the above representation and believing the same to be true.

That the above statements are true to the best of my knowledge and I sign and swear this affidavit on the 27th day of July, 2021, at Durgapur Court.

Identified by me,

(JAYANTA SARKAR)
Advocate
District Courts of Paschim Bardhaman

Jayanta Sarkar
Advocate
Durgapur Court

GIRIDHAN METAL PRIVATE LIMITED

Authorised Signatory

(SANJAY AGARWAL)
Director
M/s Giridhan Metal Private Limited

NOTARY
Mrs. A Banerjee
Durgapur, Burdwan
Regn. No.- 40/2007
Exp. Dt.-21.2.2022
GOVT. OF WEST BENGAL

Solemnly Affirmed & Declared
before me on Identification

Mrs. A. Banerjee, Notary
Durgapur, Burdwan, W.B.
Regn No -40/2007 Govt. of W.B.

27 JUL 2021

Qualissure Laboratory Services

361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107
Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	ULR No. Report No. Date Sample No. Sample Description Sample Mark Date of Performance(s) Ref No. Date	: TC627122000005273F : QLS/A/22-23/C/548 : 08.11.2022 : QLS/A/22-23/548 : Ambient Air : Near North East boundary Wall : 17.10.2022-22.10.2022 : WS22714-001, Dt.14.07.2022

Analysis Result

Location : Near North East Boundary Wall			Date of sampling : 14-15.10.2022	
Sampling Done by: S.Ghosh/J.Sahana			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Cloudy & Rainfall				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Particulate matter (<10µm) in µg/m^3	83	100	IS: 5182 (Part-23)- (RA-2017)
2	Particulate matter (<2.5µm) in µg/m^3	44	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO_2) in µg/m^3	8.5	80	IS: 5182 (Part-2)-2001, (RA-2017)
4	Nitrogen dioxide (NO_2) in µg/m^3	30.5	80	IS: 5182 (Part- 6)- 2001, (RA-2017)
5	Carbon Monoxide (CO) in mg /m^3	0.858	2	IS: 5182 (Part- 10):1999, (RA-2014)
6	Ammonia (NH_3) in µg/m^3	23.1	400	Air Sampling , 3rd Edn -Method-401
7	Ozone (O_3) in µg/m^3	26.3	180	Air Sampling , 3rd Edn -Method-411
8	Lead (Pb) in µg/m^3	0.09	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m^3	13.6	20	EPA IO-3.2
10	Arsenic (As) in ng/m^3	1.1	6	Air Sampling , 3rd Edn.Method 402 and APHA 22nd Edition Part 3114B
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

for **Qualissure Laboratory Services**
Reviewed & Authorized By

(Authorized Signatory)

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur,Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713344	Report No. Date Sample No. Sample Description Date of Performance(s) Sample Mark Ref No. Date	: QLS/A/22-23/C/548A : 08.11.2022 : QLS/A/22-23/548 : Ambient Air : 17.10.2022-22.10.2022 : Near North East boundary Wall : WS22714-001, Dt.14.07.2022

Analysis Result

Location : Near North East boundary Wall			Date of sampling : 14-15.10.2022	
Sampling Done by : S.Ghosh/J.Sahana			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Cloudy & Rainfall				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Benzene (C_6H_6) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
2	Benzo (a) pyrene in ng/m^3	<0.4	1	IS: 5182 (Part- 12)
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality				

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TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur,Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	ULR No.	: TC627122000005274F
	Report No.	: QLS/A/22-23/C/549
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/549
	Sample Description	: Ambient Air
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sample Mark	: Admin Building
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Location : Admin Building			Date of sampling : 14-15.10.2022	
Sampling Done by: S.Ghosh/J.Sahana			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Cloudy & Rainfall				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Particulate matter (<10µm) in µg/m³	73	100	IS: 5182 (Part-23)- (RA-2017)
2	Particulate matter (<2.5µm) in µg/m³	46	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO_2) in µg/m³	9.2	80	IS: 5182 (Part-2)-2001, (RA-2017)
4	Nitrogen dioxide (NO_2) in µg/m³	31.6	80	IS: 5182 (Part- 6)- 2001, (RA-2017)
5	Carbon Monoxide (CO) in mg /m³	0.984	2	IS: 5182 (Part- 10):1999, (RA-2014)
6	Ammonia (NH_3) in µg/m³	42.3	400	Air Sampling , 3rd Edn -Method-401
7	Ozone (O_3) in µg/m³	25.8	180	Air Sampling , 3rd Edn -Method-411
8	Lead (Pb) in µg/m³	0.03	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m³	8.4	20	EPA IO-3.2
10	Arsenic (As) in ng/m³	<1.0	6	Air Sampling , 3rd Edn.Method 402 and APHA 22nd Edition Part 3114B
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

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Qualissure Laboratory Services

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur,Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	Report No.	: QLS/A/22-23/C/549A
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/549
	Sample Description	: Ambient Air
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sample Mark	: Admin Building
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Location : Admin Building			Date of sampling : 14-15.10.2022	
Sampling Done by : S.Ghosh/J.Sahana			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Cloudy & Rainfall				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Benzene (C_6H_6) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
2	Benzo (a) pyrene in ng/m^3	<0.4	1	IS: 5182 (Part- 12)
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

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TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur,Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	ULR No.	: TC627122000005275F
	Report No.	: QLS/A/22-23/C/550
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/550
	Sample Description	: Ambient Air
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sample Mark	: Near Switch Yard (CPP)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Location : Near Switch Yard (CPP)			Date of sampling : 15- 16.10.2022	
Sampling Done by : S.Ghosh/J.Sahana			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Cloudy & Rainfall				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Particulate matter (<10µm) in µg/m^3	92	100	IS: 5182 (Part-23)- (RA-2017)
2	Particulate matter (<2.5µm) in µg/m^3	51	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO_2) in µg/m^3	10.2	80	IS: 5182 (Part-2)-2001, (RA-2017)
4	Nitrogen dioxide (NO_2) in µg/m^3	32.2	80	IS: 5182 (Part- 6)- 2001, (RA-2017)
5	Carbon Monoxide (CO) in mg /m^3	1.018	2	IS: 5182 (Part- 10):1999, (RA-2014)
6	Ammonia (NH_3) in µg/m^3	22.1	400	Air Sampling , 3rd Edn -Method-401
7	Ozone (O_3) in µg/m^3	36.8	180	Air Sampling , 3rd Edn -Method-411
8	Lead (Pb) in µg/m^3	0.14	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m^3	17.6	20	EPA IO-3.2
10	Arsenic (As) in ng/m^3	2.3	6	Air Sampling , 3rd Edn.Method 402 and APHA 22nd Edition Part 3114B
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

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TEST REPORT

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M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	Report No.	: QLS/A/22-23/C/550A
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/550
	Sample Description	: Ambient Air
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sample Mark	: Near Switch Yard(CPP)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Location : Near Switch Yard (CPP)			Date of sampling : 15 - 16.10.2022	
Sampling Done by : S.Ghosh/J.Sahana			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Cloudy & Rainfall				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Benzene (C_6H_6) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
2	Benzo (a) pyrene in ng/m^3	<0.4	1	IS: 5182 (Part- 12)
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

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TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, Paschim Bardhaman , Pin : 713 344	ULR No.	: TC627122000005278F
	Report No.	: QLS/A/22-23/C/543
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/543
	Sample Description	: Stack Flue Gas
	Date of Performance(s)	: 17.10.2022 - 22.10.2022
	Sample Mark	: Product Handling & Separation House
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 13.10.2022 at 12:30 P.M. Sampling done by : S.Ghosh		Sampling Procedures : EPA/IS	
A : General Information of Stack:			
1 Stack connected to	: Product Handling & Product Separation House (attached with common Stack)		
2 Emission due to	: process Activity		
3 Material of construction of Stack	: M.S		
4 Shape of Stack	: Circular		
5 Whether stack is provided with permanent platform	: Yes		
6 Generation Capacity	:----		
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level	: 30.0 m		
2 Diameter of Stack at bottom	: ----		
3 Diameter of Stack at sampling point	: 1.7 m		
4 Height of the sampling point from ground level	: 20.0 m(Apx)		
5 Area of Stack	: 2.2707 m^2		
C : Analysis/Characteristic of Stack:			
1 Fuel used : --	2. Fuel consumption : --		
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (°C)	: 51	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 751	EPA Part 2	---
3 Velocity of gas (m/sec)	: 8.16	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 60648	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: ----	EPA Part-6	---
8 Concentration of Oxides of Nitrogen (mg/Nm^3)	: ----	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 11	EPA Part 5	100
E : Pollution Control Device :			
Details of pollution control devices attached with the stack	: Bag Filter		
F : Remarks: Nil			
Note: 1) Equipment Name/ID	: Stack Sampler & Velocity Monitor		
2) Model No	: APM-160		
3) Make-	: LataEnvirotech Services		
4) Sl No-	: 82-DTF-2016		
5) Calibration valid Up to	: 06.08.2023		

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TC-6271

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, Paschim Bardhaman , Pin : 713 344	ULR No.	: TC627122000005279F
	Report No.	: QLS/A/22-23/C/544
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/544
	Sample Description	: Stack Flue Gas
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sample Mark	: Cooler Discharge of 350 TPD DRI
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 14.10.2022 at 12:00 P.M. Sampling done by : S.Ghosh		Sampling Procedures : EPAIS	
A : General Information of Stack:			
1 Stack connected to		: Cooler discharge & Surge Bin of 350 TPD DRI Attached with Common Stack	
2 Emission due to		: Process Activity	
3 Material of construction of Stack		: M.S	
4 Shape of Stack		: Circular	
5 Whether stack is provided with permanent platform		: Yes	
6 Generation Capacity		: ----	
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level		: 30.0 m	
2 Diameter of Stack at bottom		: ----	
3 Diameter of Stack at sampling point		: 1.20	
4 Height of the sampling point from ground level		: 20.0 m (Apx)	
5 Area of Stack		: 1.1314 m^2	
C : Analysis/Characteristic of Stack:			
1 Fuel used : --		2. Fuel consumption : --	
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (°C)	: 42	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 752	EPA Part 2	---
3 Velocity of gas (m/sec)	: 9.41	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 35841	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: ----	EPA Part-6	---
8 Concentration of Oxides of Nitrogen (mg/Nm^3)	: ----	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 8	EPA Part 5	100
E : Pollution Control Device : Details of pollution control devices attached with the stack		: Bag Filter	
F : Remarks: Nil			
Note: 1) Equipment Name/ID		: Stack Sampler & Velocity Monitor	
2) Model No		: APM-160	
3) Make-		: Lata Envirotech Services	
4) Sl No-		: 82-DTF-2016	
5) Calibration valid Up to		: 06.08.2023	

for **Qualissure Laboratory Services**
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TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, Paschim Bardhaman, Pin : 713 344	ULR No.	: TC627122000005280F
	Report No.	: QLS/A/22-23/C/545
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/545
	Sample Description	: Stack Flue Gas
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sample Mark	: Rotary Kiln (600 TPD DRI)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 14.10.2022 at 03:50 P.M. Sampling done by : S.Ghosh		Sampling Procedures : EPA/IS	
A : General Information of Stack:			
1 Stack connected to	: Rotary Kiln Connected with 600 TPD DRI		
2 Emission due to	: Combustion of Coal & Reduction of Fe Ore		
3 Material of construction of Stack	: RCC		
4 Shape of Stack	: Circular		
5 Whether stack is provided with permanent platform	: Yes		
6 Generation Capacity	: Rated - 600 TPD		
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level	: 80.0 m		
2 Diameter of Stack at bottom	: ----		
3 Diameter of Stack at sampling point	: 4.0m		
4 Height of the sampling point from ground level	: 35.0 m		
5 Area of Stack	: 12.57 m^2		
C : Analysis/Characteristic of Stack:			
1 Fuel used : Coal	2. Fuel consumption : 315 TPD		
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (^{0}C)	: 95	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 751	EPA Part 2	---
3 Velocity of gas (m/sec)	: 8.02	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 290105	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: 9.8	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: 87.4	EPA Part-6	---
8 Concentration of Oxides of Nitrogen (mg/Nm^3)	: 69.6	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 22	EPA Part 5	100
E : Pollution Control Device :			
Details of pollution control devices attached with the stack	: ESP		
F : Remarks: Nil			
Note: 1) Equipment Name/ID	: Stack Sampler & Velocity Monitor		
2) Model No	: APM-160		
3) Make-	: LataEnvirotech Services		
4) Sl No-	: 82-DTF-2016		
5) Calibration valid Up to	: 06.08.2023		

for **Qualissure Laboratory Services**
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TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, Paschim Bardhaman, Pin : 713 344	ULR No. Report No. Date Sample No. Sample Description Date of Performance(s) Sample Mark Ref No. Date	: TC627122000005281F : QLS/A/22-23/C/546 : 08.11.2022 : QLS/A/22-23/546 : Stack Flue Gas : 17.10.2022-22.10.2022 : SEAF(9 MVA X 2) : WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 15.10.2022 at 12:55 P.M. Sampling done by : S.Ghosh	Sampling Procedures : EPA/IS		
A : General Information of Stack:			
1 Stack connected to	: SEAF (9 MVA X 2)		
2 Emission due to	: Reduction Of Mn Ore & Quartz		
3 Material of construction of Stack	: M.S		
4 Shape of Stack	: Circular		
5 Whether stack is provided with permanent platform	: Yes		
6 Generation Capacity	: 9 MVA X 2 (Both Were Running at Sampling Time)		
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level	: 40.0 m		
2 Diameter of Stack at bottom	: ----		
3 Diameter of Stack at sampling point	: 2.5 m		
4 Height of the sampling point from ground level	: 27.0 m		
5 Area of Stack	: 4.91 m^2		
C : Analysis/Characteristic of Stack:			
1 Fuel used : --	2. Fuel consumption : --		
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (°C)	: 92	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 751	EPA Part 2	---
3 Velocity of gas (m/sec)	: 10.47	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 149393	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: 0.6	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: ----	EPA Part-6	---
8 Concentration of Oxides of Nitrogen (mg/Nm^3)	: ----	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 29	EPA Part 5	100
E : Pollution Control Device :			
Details of pollution control devices attached with the stack	: Bag Filter		
F : Remarks: Nil			
Note: 1) Equipment Name/ID	: Stack Sampler & Velocity Monitor		
2) Model No	: APM-160		
3) Make-	: Lata Envirotech Services		
4) Sl No-	: 82-DTF-2016		
5) Calibration valid Up to	: 06.08.2023		

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TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, Paschim Bardhaman, Pin : 713 344	ULR No.	: TC627122000005282F
	Report No.	: QLS/A/22-23/C/547
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/547
	Sample Description	: Stack Flue Gas
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sample Mark	: CFBC Boiler
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 14.10.2022 at 03:50 P.M. Sampling done by : S.Ghosh	Sampling Procedures : EPA/IS		
A : General Information of Stack:			
1 Stack connected to	: CFBC Boiler		
2 Emission due to	: Combustion of Coal		
3 Material of construction of Stack	: RCC		
4 Shape of Stack	: Circular		
5 Whether stack is provided with permanent platform	: Yes		
6 Generation Capacity	: 32 TPH		
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level	: 80.0 m		
2 Diameter of Stack at bottom	: ----		
3 Diameter of Stack at sampling point	: 2.0m		
4 Height of the sampling point from ground level	: 35.0 m		
5 Area of Stack	: 3.14 m^2		
C : Analysis/Characteristic of Stack:			
1 Fuel used : Coal	2. Fuel consumption :		
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (^{0}C)	: 140	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 752	EPA Part 2	---
3 Velocity of gas (m/sec)	: 13.83	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 109062	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: 10.6	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: 76.9	EPA Part-6	---
8 Concentration of Oxides of Nitrogen (mg/Nm^3)	: 53.7	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 18	EPA Part 5	100
E : Pollution Control Device :			
Details of pollution control devices attached with the stack	: ESP		
F : Remarks: Nil			
Note: 1) Equipment Name/ID	: Stack Sampler & Velocity Monitor		
2) Model No	: APM-160		
3) Make-	: LataEnvirotech Services		
4) Sl No-	: 82-DTF-2016		
5) Calibration valid Up to	: 06.08.2023		

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TC-6271

DOC No. -QLS/SAMP/01-A/00

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	ULR No.	: TC627122000005276F
	Report No.	: QLS/A/22-23/C/551
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/551(A-F)
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sample Description	: Fugitive Air
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result of Fugitive Air

Sampling Done by: S. Ghosh/J.Sahana		Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Cloudy & Rainfall			
Sample No.	**Location**	**Date of Sampling**	**(RPM) in µg/m³**
551A	Near Cooler Discharge (600 TPD DRI)	13.10.2022	936
551B	Near I Bin (600 TPD DRI)		152
551C	Near Product House (600 TPD DRI)	14.10.2022	263
551D	Near CFBC Boiler (CPP)		414
551E	Near Furnace -2 (Ferro)	15.10.2022	369
551F	Near Batching Plant (Ferro)		279
NOTE:- Nil			

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TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.: Nandi, Paschim Bardhaman, Pin : 713 344	ULR No.	: TC627122000005277F
	Report No.	: QLS/A/22-23/C/552
	Date	: 08.11.2022
	Sample No.	: QLS/A/22-23/552(A-D)
	Sample Description	: Noise Monitoring
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Monitoring Result of Noise

Sampling Done By: S.Ghosh/J.Sahana

Sampling Guideline : As per IS: 9876: 1981 (RA-2001)

Sample No	Date of Monitoring	Location	Leq dB (A) Day Time	Leq dB (A) Night Time
552A	13-14.10.2022	Near CPP Area	63.5	51.6
552B		Near Ferro Plant	68.2	56.3
552C	14-15.10.2022	Near Main Gate	62.0	50.1
552D		Near 600 TPD DRI	67.5	54.7

Code/ Category	Leq dB Day Time(A)	Leq dB Night Time(A)
A/Industrial	75	70
B/Commercial	65	55
C/Residential	55	45
D/Ecological Sensitive	50	40

NOTE:
Day Time : 06.00 Hr. – 22.00 Hr.
Night Time : 22.00 Hr. – 06.00 Hr.

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TC-6271

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

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	ULR No	: TC627122000005272F
	Report No.	: QLS/W/22-23/C/381
	Date	: 08.11.2022
	Sample No.	: QLS/W/22-23/381
	Sample Description	: Effluent Water
	Sample Mark/Location	: Boiler Blow Down
	Date of Performance	: 17.10.2022-22.10.2022
	Sample Drawn On	: 15.10.2022
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Sl. No.	Parameter	TEST METHOD	Result	Limit as per CPCB for discharge of effluents	
				Inland Surface Water	Public Sewers
1.	pH at 25° C	APHA 23rd Edition-2017,4500H+	9.31	5.5 to 9.0	5.5 to 9.0
2.	Total Suspended Solid in mg/l	APHA 23rd Edition-2017, 2540D	12	100	600
3.	Chemical Oxygen Demand (as COD) mg/l	APHA 23rd Edition-2017, 5220B	14	250	---
4.	Biochemical Oxygen Demand (as BOD) mg/l	IS 3025 (Part 44)-1993, RA:2014	4.7	30	350
5.	Oil & Grease in mg/l	APHA 23rd Edition-2017, 5520A	<1.4	10	20
6.	Phenolic compounds (as C_6H_5OH) in mg/l	APHA 23rd Edition-2017 , 5530C	<0.001	1.0	5.0
7.	Iron (as Fe) in mg/l	APHA 23rd Edition-2017, 3500 Fe B	0.33	3	3

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

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	ULR No.	: TC627122000005270F
	Report No.	: QLS/W/22-23/C/379
	Date	: 08.11.2022
	Sample No.	: QLS/ W/22-23/379
	Sample Description	: Drinking Water
	Sample Mark/Location	: Cooler Near Canteen
	Sample Drawn On	: 15.10.2022
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

(A) Microbiological Analysis

Sl.No.	Characteristic	Limit as Per IS 10500 :2012Amd. 2	Test Method	Result
1.	E.coli/100ml	Not Detectable	IS 15185-2016	Not Detected
2.	Total Coliform Bacteria/100ml	Not Detectable	IS 15185-2016	Not Detected
3.	Faecal Coliform/100ml	---	IS 1622-1981,(RA 2019)	Not Detected

(B) Chemical Analysis

Sl.No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 Amd. 1 , 2& 3		Result
			Acceptable Limit	Permissible Limit	
1	Colour in Hazen Units	IS 3025 (Part 4): 1983 (RA 2012)	5	15	<1.0
2	Odour	IS 3025 (Part 5): 1983 (RA 2012)	Agreeable	Agreeable	Agreeable
3	pH Value at 25°C	IS 3025 (Part 11): 1984 (RA 2012)	6.5-8.5	No Relaxation	7.47
4	Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2012)	1	5	<1.0
5	Total Dissolved Solids (as TDS) in mg/l	IS 3025 (Part 16): 1984 (RA 2012)	500	2000	336
6	Aluminium (as Al) in mg/l	IS 3025 (Part 55): 2003 (RA 2014	0.03	0.2	<0.01
7	Ammonia as NH_3 in mg/l	IS 3025 (Part 34): 1988(RA 2014)	0.5	No Relaxation	<0.1
8	Anionic Detergents(as MBAS) in mg/l	IS 13428-2005(Annex K)	0.2	1.0	<0.02
9	Boron(as B) in mg/l	IS 13428-2005(Annex L)	0.5	2.4	<0.5
10	Calcium(as Ca) in mg/l	IS 3025 (Part 40): 1991(RA 2014)	75	200	70.7
11	Chloride(as Cl) in mg/l	IS 3025 (Part 32): 1988 (RA 2014)	250	1000	41.8
12	Copper(as Cu) in mg/l	IS 3025 (Part 42): 1992(RA 2014)	0.05	1.5	<0.02
13	Fluoride(as F) in mg/l	APHA 23rd Edition 2017, 4500 F D	1.0	1.5	<0.1
14	Free Residual Chlorine in mg/l	IS 3025 (Part 26): 1986(RA 2014)	0.2	1.0	<0.1
15	Iron (as Fe) in mg/l	IS 3025 (Part 53): 1988(RA 2014)	1.0	No Relaxation	0.21
16	Magnesium(as Mg) in mg/l	IS 3025 (Part 46): 1994(RA 2014)	30	100	20.3
17	Manganese (as Mn) in mg/l	IS 3025 (Part 59): 2006 (RA 2014)	0.1	0.3	<0.02
18	Mineral Oil in mg/l	IS 3025 (Part 39): 1991 (RA 2014)	1.0	No Relaxation	<0.5
19	Nitrate (as NO_3) in mg/l	IS 3025 (Part 34): 1988(RA 2014)	45	No Relaxation	<0.5
20	Phenolic Compounds(as C_6H_5OH) in mg/l	IS 3025 (Part 43): 1992(RA 2014)	0.001	0.002	<0.001
21	Selenium(as Se) in mg/l	IS 15303: 2003 (RA 2013)	0.01	No Relaxation	<0.01
22	Sulphate (as SO_4) in mg/l	IS 3025 (Part 24): 1986 (RA 2014)	200	400	32.7
23	Alkalinity(as $CaCO_3$)in mg/l	IS 3025 (Part 23): 1986(RA 2014)	200	600	283.2
24	Total Hardness (as $CaCO_3$) in mg/l	IS 3025 (Part 21): 2013	200	600	261.1
25	Cadmium(as Cd) in mg/l	IS 3025 (Part 41): 1992(RA 2014)	0.003	No Relaxation	<0.002
26	Cyanide(as CN) in mg/l	IS 3025 (Part 27): 1986(RA 2014)	0.05	No Relaxation	<0.02
27	Lead(as Pb) in mg/l	IS 3025 (Part 47): 1994 (RA 2014)	0.01	No Relaxation	<0.01
28	Mercury(as Hg) in mg/l	IS 3025 (Part 48): 1994(RA 2014)	0.001	No Relaxation	<0.001
29	Arsenic(as As) in mg/l	IS 3025 (Part 37): 1988 (RA 2014)	0.01	No Relaxation	<0.01
30	Zinc(as Zn) in mg/l	IS 3025 (Part 49): 1994 (RA 2014)	5	15	<0.02
31	Total Chromium (as Cr) in mg/l	IS 3025 (Part 52): 2014(RA 2014)	0.05	No Relaxation	<0.05

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Reviewed & Authorized By

R. Roy

(Authorized Signatory)

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9830093976

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

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	Report No. Date Sample No. Sample Description Sample Mark/Location Sample Drawn On Date of Performance(s) Sampling Method Ref No. Date	: QLS/W/22-23/C/379A : 08.11.2022 : QLS/ W/22-23/379 : Drinking Water : Cooler Near Canteen : 15.10.2022 : 17.10.2022-22.10.2022 : IS 3025(Part 1): 1987 (RA 2019) : WS22714-001, Dt.14.07.2022

Analysis Result

Sl. No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 Amd. 1 , 2 & 3		Result
			Acceptable Limit	Permissible Limit	
1.	Taste	IS 3025(Part 7 & 8): 1984 (RA 2002)	Agreeable	Agreeable	Agreeable
2.	Molybdenum as Mo in mg/l	APHA 23rd Edition, 2017, 3113B	0.07	No Relaxation	<0.05

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TC-6271

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

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	ULR No. Report No. Date Sample No. Sample Description Sample Mark/Location Sample Drawn On Date of Performance(s) Sampling Method Ref No. Date	: TC627122000005271F : QLS/W/22-23/C/380 : 08.11.2022 : QLS/ W/22-23/380 : Drinking Water : DM Plant Water : 15.10.2022 : 17.10.2022-22.10.2022 : IS 3025(Part 1): 1987 (RA 2019) : WS22714-001, Dt.14.07.2022

Analysis Result

(A) Microbiological Analysis

Sl. No.	Characteristic	Limit as Per IS 10500 :2012 Amd. 2	Test Method	Result
1.	E.coli/100ml	Not Detectable	IS 15185-2016	Not Detected
2.	Total Coliform Bacteria/100ml	Not Detectable	IS 15185-2016	Not Detected
3.	Faecal Coliform/100ml	---	IS 1622-1981,(RA 2019)	Not Detected

(B) Chemical Analysis

Sl. No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 Amd. 1 , 2 & 3		Result
			Acceptable Limit	Permissible Limit	
1	Colour in Hazen Units	IS 3025 (Part 4): 1983 (RA 2012)	5	15	<1.0
2	Odour	IS 3025 (Part 5): 1983 (RA 2012)	Agreeable	Agreeable	Agreeable
3	pH Value at 25°C	IS 3025 (Part 11): 1984 (RA 2012)	6.5-8.5	No Relaxation	7.89
4	Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2012)	1	5	<1.0
5	Total Dissolved Solids (as TDS) in mg/l	IS 3025 (Part 16): 1984 (RA 2012)	500	2000	184
6	Aluminium (as Al) in mg/l	IS 3025 (Part 55): 2003 (RA 2014	0.03	0.2	<0.01
7	Ammonia as NH_3 in mg/l	IS 3025 (Part 34): 1988(RA 2014)	0.5	No Relaxation	<0.1
8	Anionic Detergents(as MBAS) in mg/l	IS 13428-2005(Annex K)	0.2	1.0	<0.02
9	Boron(as B) in mg/l	IS 13428-2005(Annex L)	0.5	2.4	<0.5
10	Calcium(as Ca) in mg/l	IS 3025 (Part 40): 1991(RA 2014)	75	200	35.3
11	Chloride(as Cl) in mg/l	IS 3025 (Part 32): 1988 (RA 2014)	250	1000	26.6
12	Copper(as Cu) in mg/l	IS 3025 (Part 42): 1992(RA 2014)	0.05	1.5	<0.02
13	Fluoride(as F) in mg/l	APHA 23rd Edition 2017, 4500 F D	1.0	1.5	<0.1
14	Free Residual Chlorine in mg/l	IS 3025 (Part 26): 1986(RA 2014)	0.2	1.0	<0.1
15	Iron (as Fe) in mg/l	IS 3025 (Part 53): 1988(RA 2014)	1.0	No Relaxation	0.15
16	Magnesium(as Mg) in mg/l	IS 3025 (Part 46): 1994(RA 2014)	30	100	11.1
17	Manganese (as Mn) in mg/l	IS 3025 (Part 59): 2006 (RA 2014)	0.1	0.3	<0.02
18	Mineral Oil in mg/l	IS 3025 (Part 39): 1991 (RA 2014)	1.0	No Relaxation	<0.5
19	Nitrate (as NO_3) in mg/l	IS 3025 (Part 34): 1988(RA 2014)	45	No Relaxation	<0.5
20	Phenolic Compounds(as C_6H_5OH) in mg/l	IS 3025 (Part 43): 1992(RA 2014)	0.001	0.002	<0.001
21	Selenium(as Se) in mg/l	IS 15303: 2003 (RA 2013)	0.01	No Relaxation	<0.01
22	Sulphate (as SO_4) in mg/l	IS 3025 (Part 24): 1986 (RA 2014)	200	400	27.8
23	Alkalinity(as $CaCO_3$)in mg/l	IS 3025 (Part 23): 1986(RA 2014)	200	600	129.6
24	Total Hardness (as $CaCO_3$) in mg/l	IS 3025 (Part 21): 2013	200	600	134.4
25	Cadmium(as Cd) in mg/l	IS 3025 (Part 41): 1992(RA 2014)	0.003	No Relaxation	<0.002
26	Cyanide(as CN) in mg/l	IS 3025 (Part 27): 1986(RA 2014)	0.05	No Relaxation	<0.02
27	Lead(as Pb) in mg/l	IS 3025 (Part 47): 1994 (RA 2014)	0.01	No Relaxation	<0.01
28	Mercury(as Hg) in mg/l	IS 3025 (Part 48): 1994(RA 2014)	0.001	No Relaxation	<0.001
29	Arsenic(as As) in mg/l	IS 3025 (Part 37): 1988 (RA 2014)	0.01	No Relaxation	<0.01
30	Zinc(as Zn) in mg/l	IS 3025 (Part 49): 1994 (RA 2014)	5	15	<0.02
31	Total Chromium (as Cr) in mg/l	IS 3025 (Part 52): 2014(RA 2014)	0.05	No Relaxation	<0.05

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Qualissure Laboratory Services

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

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin : 713 344	Report No.	: QLS/W/22-23/C/380A
	Date	: 08.11.2022
	Sample No.	: QLS/ W/22-23/380
	Sample Description	: Drinking Water
	Sample Mark/Location	: DM Plant Water
	Sample Drawn On	: 15.10.2022
	Date of Performance(s)	: 17.10.2022-22.10.2022
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Sl. No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 Amd. 1 , 2 & 3		Result
			Acceptable Limit	Permissible Limit	
1.	Taste	IS 3025(Part 7 & 8): 1984 (RA 2002)	Agreeable	Agreeable	Agreeable
2.	Molybdenum as Mo in mg/l	APHA 23rd Edition, 2017, 3113B	0.07	No Relaxation	<0.05

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Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	URL No. Report No. Date Sample No. Sample Description Sample Mark Ref No. Date	: TC627122000004162F : QLS/A/22-23/C/303 : 01.08.2022 : QLS/A/22-23/303 : Ambient Air : North East boundary Wall : WS22714-001, Dt.14.07.2022

Analysis Result

Location : Near North East Boundary Wall			Date of sampling : 27-28.07.2022	
Sampling Done by: S.Ghosh/S.Poddar			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Clear & Sunny				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Particulate matter (<10µm) in µg/m^3	78	100	IS: 5182 (Part-23)- (RA-2017)
2	Particulate matter (<2.5µm) in µg/m^3	37	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO_2) in µg/m^3	6.0	80	IS: 5182 (Part-2)-2001, (RA-2017)
4	Nitrogen dioxide (NO_2) in µg/m^3	29.1	80	IS: 5182 (Part- 6)- 2001, (RA-2017)
5	Carbon Monoxide (CO) in µg /m^3	561	2000	IS: 5182 (Part- 10):1999, (RA-2014)
6	Ammonia (NH_3) in µg/m^3	30.7	400	Air Sampling , 3rd Edn -Method-401
7	Ozone (O_3) in µg/m^3	20.4	180	Air Sampling , 3rd Edn -Method-411
8	Lead (Pb) in µg/m^3	0.04	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m^3	4.8	20	EPA IO-3.2
10	Arsenic (As) in ng/m^3	<1.0	6	Air Sampling , 3rd Edn.Method 402 and APHA 22nd Edition Part 3114B
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

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TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	Report No. Date Sample No. Sample Description Sample Mark Ref No. Date	: QLS/A/22-23/C/303A : 01.08.2022 : QLS/A/22-23/303 : Ambient Air : North East boundary Wall : WS22714-001, Dt.14.07.2022

Analysis Result

Location : North East boundary Wall			Date of sampling : 27 -28.07.2022	
Sampling Done by : S.Ghosh/S.Poddar			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Clear & Sunny				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Benzene (C_6H_6) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
2	Benzo (a) pyrene in ng/m^3	<0.4	1	IS: 5182 (Part- 12)
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality				

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TC-6271

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

TEST REPORT

Name & Address Of the Customer : M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur,Jamuria P.O.- Nandi, PaschimBardhaman, Pin:713344	URL No. Report No. Date Sample No. Sample Description Sample Mark Ref No. Date	: TC627122000004161F : QLS/A/22-23/C/302 : 01.08.2022 : QLS/A/22-23/302 : Ambient Air : Near Switch Yard : WS22714-001, Dt.14.07.2022

Analysis Result

Location : Near Switch Yard (CPP)			Date of sampling : 26 -27.07.2022	
Sampling Done by: S.Ghosh/S.Poddar			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Clear & Sunny				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Particulate matter (<10µm) in µg/m^3	83	100	IS: 5182 (Part-23)- (RA-2017)
2	Particulate matter (<2.5µm) in µg/m^3	44	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO_2) in µg/m^3	7.6	80	IS: 5182 (Part-2)-2001, (RA-2017)
4	Nitrogen dioxide (NO_2) in µg/m^3	30.1	80	IS: 5182 (Part- 6)- 2001, (RA-2017)
5	Carbon Monoxide (CO) in µg /m^3	789	2000	IS: 5182 (Part- 10):1999, (RA-2014)
6	Ammonia (NH_3) in µg/m^3	32.6	400	Air Sampling , 3rd Edn -Method-401
7	Ozone (O_3) in µg/m^3	34.5	180	Air Sampling , 3rd Edn -Method-411
8	Lead (Pb) in µg/m^3	0.22	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m^3	12.2	20	EPA IO-3.2
10	Arsenic (As) in ng/m^3	1.4	6	Air Sampling , 3rd Edn.Method 402 and APHA 22nd Edition Part 3114B
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

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TEST REPORT

Name & Address Of the Customer : M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	Report No. : QLS/A/22-23/C/302A Date : 01.08.2022 Sample No. : QLS/A/22-23/302 Sample Description : Ambient Air Sample Mark : Near Switch Yard Ref No. Date : WS22714-001, Dt.14.07.2022

Analysis Result

Location : Near Switch Yard			Date of sampling : 26 -27.07.2022	
Sampling Done by : S.Ghosh/S.Poddar			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Clear & Sunny				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Benzene (C_6H_6) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
2	Benzo (a) pyrene in ng/m^3	<0.4	1	IS: 5182 (Part- 12)
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality				

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TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur,Jamuria P.O.- Nandi, PaschimBardhaman, Pin:713344	URL No. Report No. Date Sample No. Sample Description Sample Mark Ref No. Date	: TC627122000004160F : QLS/A/22-23/C/301 : 01.08.2022 : QLS/A/22-23/301 : Ambient Air : Admin Building : WS22714-001, Dt.14.07.2022

Analysis Result

Location : Admin Building			Date of sampling : 26 -27.07.2022	
Sampling Done by: S.Ghosh/S.Poddar			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Clear & Sunny				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Particulate matter (<10µm) in µg/m^3	82	100	IS: 5182 (Part-23)- (RA-2017)
2	Particulate matter (<2.5µm) in µg/m^3	44	60	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide (SO_2) in µg/m^3	8.0	80	IS: 5182 (Part-2)-2001, (RA-2017)
4	Nitrogen dioxide (NO_2) in µg/m^3	29.7	80	IS: 5182 (Part- 6)- 2001, (RA-2017)
5	Carbon Monoxide (CO) in µg /m^3	824	2000	IS: 5182 (Part- 10):1999, (RA-2014)
6	Ammonia (NH_3) in µg/m^3	30.4	400	Air Sampling , 3rd Edn -Method-401
7	Ozone (O_3) in µg/m^3	23.6	180	Air Sampling , 3rd Edn -Method-411
8	Lead (Pb) in µg/m^3	0.19	1	EPA IO-3.2 & 5.0
9	Nickel (Ni) in ng/m^3	9.3	20	EPA IO-3.2
10	Arsenic (As) in ng/m^3	<1.0	6	Air Sampling , 3rd Edn.Method 402 and APHA 22nd Edition Part 3114B
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

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TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	Report No. Date Sample No. Sample Description Sample Mark Ref No. Date Report No.	: QLS/A/22-23/C/301A : 01.08.2022 : QLS/A/22-23/301 : Ambient Air : Admin Building : WS22714-001, Dt.14.07.2022 : QLS/A/22-23/C/301

Analysis Result

Location : Admin Building			Date of sampling : 26 -27.07.2022	
Sampling Done by : S.Ghosh/S.Poddar			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Clear & Sunny				
Sl. No.	**POLLUTANT**	**RESULT**	**LIMIT**	**METHOD OF TEST REFERENCE**
1	Benzene (C_6H_6) in $\mu g/m^3$	<2.08	5	IS: 5182 (Part- 11)
2	Benzo (a) pyrene in ng/m^3	<0.4	1	IS: 5182 (Part- 12)
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality				

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TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, PaschimBardhaman , Pin:713 344	ULR No.	: TC627122000004169F
	Report No.	: QLS/A/22-23/C/310
	Date	: 01.08.2022
	Sample No.	: QLS/A/22-23/310
	Sample Description	: Stack Flue Gas
	Date of Performance	: 27-07- 01.08.2022
	Sample Mark	: Cooler Discharge of 350 TPD DRI
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 26.07.2022 at 11: 34A.M. Sampling done by : S.Ghosh	Sampling Procedures : EPA/IS		
A : General Information of Stack:			
1 Stack connected to	: Cooler discharge & Surge Bin of 350 TPD DRI Attached with Common Stack		
2 Emission due to	: process Activity		
3 Material of construction of Stack	: M.S		
4 Shape of Stack	: Circular		
5 Whether stack is provided with permanent platform	: Yes		
6 Generation Capacity	:----		
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level	: 30.0 m		
2 Diameter of Stack at bottom	: ----		
3 Diameter of Stack at sampling point	: 1.20		
4 Height of the sampling point from ground level	: 20.0 m (Apx)		
5 Area of Stack	: 1.1314 m^2		
C : Analysis/Characteristic of Stack:			
1 Fuel used : --	2. Fuel consumption : --		
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (^{0}C)	: 41	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 752	EPA Part 2	---
3 Velocity of gas (m/sec)	: 10.84	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 41490	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: <3.4	EPA Part-6	---
8 Concentration of Nitrogen dioxide (mg/Nm^3)	: 27.6	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 5	EPA Part 5	100
E : Pollution Control Device :			
Details of pollution control devices attached with the stack	: Bag Filter		
F : Remarks: Nil			
Note: 1) Equipment Name/ID	: Stack Sampler & Velocity Monitor		
2) Model No	: APM-160		
3) Make-	: LataEnvirotech Services		
4) Sl No-	: 82-DTF-2016		
5) Calibration valid Up to	: 11.08.2022		

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TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, PaschimBardhaman , Pin:713 344	ULR No.	: TC627122000004170F
	Report No.	: QLS/A/22-23/C/311
	Date	: 01.08.2022
	Sample No.	: QLS/A/22-23/311
	Sample Description	: Stack Flue Gas
	Date of Performance	: 27-07- 01.08.2022
	Sample Mark	: Product Handling & Separation House
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 26.07.2022 at 1:00 P.M. Sampling done by : S.Ghosh		Sampling Procedures : EPA/IS	
A : General Information of Stack:			
1 Stack connected to	: Product Handling & Product Separation House (attached with common Stack)		
2 Emission due to	: process Activity		
3 Material of construction of Stack	: M.S		
4 Shape of Stack	: Circular		
5 Whether stack is provided with permanent platform	: Yes		
6 Generation Capacity	:----		
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level	: 30.0 m		
2 Diameter of Stack at bottom	: ----		
3 Diameter of Stack at sampling point	: 1.7 m		
4 Height of the sampling point from ground level	: 20.0 m(Apx)		
5 Area of Stack	: 2.2707 m^2		
C : Analysis/Characteristic of Stack:			
1 Fuel used : --	2. Fuel consumption : --		
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (^{0}C)	: 45	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 755	EPA Part 2	---
3 Velocity of gas (m/sec)	: 11.15	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 84931	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: <3.4	EPA Part-6	---
8 Concentration of Nitrogen dioxide (mg/Nm^3)	: ----	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 3	EPA Part 5	100
E : Pollution Control Device :			
Details of pollution control devices attached with the stack	: Bag Filter		
F : Remarks: Nil			
Note: 1) Equipment Name/ID	: Stack Sampler & Velocity Monitor		
2) Model No	: APM-160		
3) Make-	: LataEnvirotech Services		
4) Sl No-	: 82-DTF-2016		
5) Calibration valid Up to	: 11.08.2022		

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TC-6271

DOC NO- QLS/SAMP/08-B/00

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, Paschim Bardhaman , Pin:713 344	ULR No.	: TC627122000004171F
	Report No.	: QLS/A/22-23/C/312
	Date	: 01.08.2022
	Sample No.	: QLS/A/22-23/312
	Sample Description	: Stack Flue Gas
	Date of Performance	: 27-07- 01.08.2022
	Sample Mark	: SEAF
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 27.07.2022 at 2:25 P.M. Sampling done by : S.Ghosh	Sampling Procedures : EPA/IS		
A : General Information of Stack:			
1 Stack connected to	: SEAF (9 MVA X 2)		
2 Emission due to	: Reduction Of Mn Ore & Quartz		
3 Material of construction of Stack	: M.S		
4 Shape of Stack	: Circular		
5 Whether stack is provided with permanent platform	: Yes		
6 Generation Capacity	: 9 MVA X 2 (Both Were Running at Sampling Time)		
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level	: 40.0 m		
2 Diameter of Stack at bottom	: ----		
3 Diameter of Stack at sampling point	: 1.8 m		
4 Height of the sampling point from ground level	: 27.0 m		
5 Area of Stack	: 2.54 m^2		
C : Analysis/Characteristic of Stack:			
1 Fuel used : --	2. Fuel consumption : --		
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (^{0}C)	: 84	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 752	EPA Part 2	---
3 Velocity of gas (m/sec)	: 6.44	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 48621	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: <3.4	EPA Part-6	---
8 Concentration of Nitrogen dioxide (mg/Nm^3)	: 52.5	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 7	EPA Part 5	100
E : Pollution Control Device : Details of pollution control devices attached with the stack	: Bag Filter		
F : Remarks: Nil			
Note: 1) Equipment Name/ID	: Stack Sampler & Velocity Monitor		
2) Model No	: APM-160		
3) Make-	: Lata Envirotech Services		
4) Sl No-	: 82-DTF-2016		
5) Calibration valid Up to	: 11.08.2022		

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TC-6271

DOC NO.: QLS/SAMP/08-B/00

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O. - Nandi, PaschimBardhaman , Pin:713 344	ULR No.	: TC627122000004172F
	Report No.	: QLS/A/22-23/C/313
	Date	: 01.08.2022
	Sample No.	: QLS/A/22-23/313
	Sample Description	: Stack Flue Gas
	Date of Performance	: 28-07- 01.08.2022
	Sample Mark	: DRI- 350TPD
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Date & Time of Sampling : 27.07.2022 at 11:10 A.M. Sampling done by : S.Ghosh	Sampling Procedures : EPA/IS		
A : General Information of Stack:			
1 Stack connected to	: Rotary Kiln Connected with 350 TPD DRI		
2 Emission due to	: Combustion of Coal & Reduction of Fe Ore		
3 Material of construction of Stack	: RCC		
4 Shape of Stack	: Circular		
5 Whether stack is provided with permanent platform	: Yes		
6 Generation Capacity	:Rated -350 TPD		
B : Physical Characteristic of Stack:			
1 Height of Stack from ground level	: 80.0 m		
2 Diameter of Stack at bottom	: ----		
3 Diameter of Stack at sampling point	: 4.0m		
4 Height of the sampling point from ground level	: 35.0 m		
5 Area of Stack	: 12.57 m^2		
C : Analysis/Characteristic of Stack:			
1 Fuel used : Coal	2. Fuel consumption : 315 TPD		
D : Results of Sampling & Analysis of gaseous Emission:	**RESULT**	**METHOD**	**LIMIT**
1 Temperature of emission (°C)	: 112	EPA Part 2	---
2 Barometric pressure (mm of Hg)	: 752	EPA Part 2	---
3 Velocity of gas (m/sec)	: 7.05	EPA Part 2	---
4 Quantity of gas flow (Nm^3/hr)	: 234582	EPA Part 2	---
5 Concentration of Carbon monoxide(%v/v)	: <0.2	IS:13270-1992, Reaf : 2017	---
6 Concentration of Carbon dioxide(%v/v)	: 10.2	IS:13270-1992, Reaf : 2017	---
7 Concentration of Sulphur dioxide (mg/Nm^3)	: 358.7	EPA Part-6	---
8 Concentration of Nitrogen dioxide (mg/Nm^3)	: 206.5	EPA Part-7	---
9 Concentration of Particulate Matters (mg/Nm^3)	: 11 at 12% CO_2	EPA Part 5	100
E : Pollution Control Device :			
Details of pollution control devices attached with the stack	: ESP		
F : Remarks: Nil			
Note: 1) Equipment Name/ID	: Stack Sampler & Velocity Monitor		
2) Model No	: APM-160		
3) Make-	: LataEnvirotech Services		
4) Sl No-	: 82-DTF-2016		
5) Calibration valid Up to	: 11.08.2022		

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TEST REPORT

Name & Address Of the Customer : M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, PaschimBardhaman, Pin:713 344	ULR No. : TC627122000004163F Report No. : QLS/A/22-23/C/304 Date : 01.08.2022 Sample No. : QLS/A/22-23/304-309 Date of Performance : 25-30.06.2022 Sample Description : Fugitive Air Ref No. Date : WS22714-001, Dt.14.07.2022

Analysis Result of Fugitive Air

Sampling Done by: S. Ghosh/P.Mondal		Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Sunny & Clear			
Sample No.	**Location**	**Date of Sampling**	**(RPM) in µg/m³**
304	Near Cooler Discharge (350 TPD DRI)	26.07.2022	647
305	Near Day Bin (350 TPD DRI)		93
306	Near Product Separation Building (350 TPD DRI)		165
307	Near Metal Yard (Ferro)	27.07.2022	506
308	Near Ground Hopper(Ferro)		164
309	Near main Fabrication Yard		180
NOTE:- Nil.			

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361, Prantick Pally, 45/361, Bose Pukur Road, Kolkata -700107
Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

TC-6271

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

TEST REPORT

Name & Address Of the Customer :		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.: Nandi, PaschimBardhaman , Pin:713344	ULR No.	: TC627121000004173F
	Report No.	: QLS/A/22-23/C/314
	Date	: 01.08.2022
	Sample No.	: QLS/A/22-23/314(A-D)
	Sample Description	: Noise Monitoring
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Monitoring Result of Noise

Sampling Done By: S.Ghosh/S.Podder

Sampling Guideline : As per IS: 9876: 1981 (RA-2001)

Sample No	Date of Monitoring	Location	Leq dB (A) Day Time	Leq dB (A) Night Time
314A	26-27.07.2022	Near Main Fabrication Yard	56.0	52.4
314B		Near Ferro Plant	64.3	54.1
314C	27-28.07.2022	Near Main Gate	59.3	49.8
314D		Near DRI	65.8	55.4

Code/ Category	Leq dB Day Time(A)	Leq dB Night Time(A)
A/Industrial	75	70
B/Commercial	65	55
C/Residential	55	45
D/Ecological Sensitive	50	40

NOTE:
Day Time : 06.00 Hr. – 22.00 Hr.
Night Time : 22.00 Hr. – 06.00 Hr.

for **Qualissure Laboratory Services**
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Authorized Signatory

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TC-6271

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	ULR No	: TC627122000004232F
	Report No.	: QLS/W/22-23/C/213
	Date	: 01.08.2022
	Sample No.	: QLS/W/22-23/213
	Sample Description	: Effluent Water
	Sample Mark/Location	: Cooling Tower Blow Down
	Date of Performance	: 27.07.2022-01.08.2022
	Sample Drawn On	: 26.07.2022
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Sl. No.	Parameter	TEST METHOD	Result	Limit as per CPCB for discharge of effluents	
				Inland Surface Water	Public Sewers
1.	pH at 25^{0}C	APHA 23rd Edition-2017,4500H+	9.22	5.5 to 9.0	5.5 to 9.0
2.	Total Suspended Solid in mg/l	APHA 23rd Edition-2017, 2540D	10	100	600
3.	Chemical Oxygen Demand (as COD) mg/l	APHA 23rd Edition-2017, 5220B	12	250	---
4.	Biochemical Oxygen Demand (as BOD) mg/l	IS 3025 (Part 44)-1993, RA:2014	3.3	30	350
5.	Oil & Grease in mg/l	APHA 23rd Edition-2017, 5520A	<1.4	10	20
6.	Phenolic compounds (as C_6H_5OH) in mg/l	APHA 23rd Edition-2017 , 5530C	<0.001	1.0	5.0
7.	Iron (as Fe) in mg/l	APHA 23rd Edition-2017, 3500 Fe B	0.37	3	3

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Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

TC-6271

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

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	ULR No.	: TC627122000004230F
	Report No.	: QLS/W/22-23/C/212
	Date	: 05.08.2022
	Sample No.	: QLS/ W/22-23/212
	Sample Description	: Drinking Water
	Sample Mark/Location	: DM Plant Water
	Sample Drawn On	: 26.07.2022
	Date of Performance(s)	: 27.07.2022-01.08.2022
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

(A) Microbiological Analysis

Sl. No.	Characteristic	Limit as Per IS 10500 :2012 Amd. 2	Test Method	Result
1.	E.coli/100ml	Not Detectable	IS 15185-2016	Not Detected
2.	Total Coliform Bacteria/100ml	Not Detectable	IS 15185-2016	Not Detected
3.	Faecal Coliform/100ml	---	IS 1622-1981,(RA 2019)	Not Detected

(B) Chemical Analysis

Sl. No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 Amd. 1 , 2 & 3		Result
			Acceptable Limit	Permissible Limit	
1	Colour in Hazen Units	IS 3025 (Part 4): 1983 (RA 2012)	5	15	<1.0
2	Odour	IS 3025 (Part 5): 1983 (RA 2012)	Agreeable	Agreeable	Agreeable
3	pH Value at 25°C	IS 3025 (Part 11): 1984 (RA 2012)	6.5-8.5	No Relaxation	7.93
4	Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2012)	1	5	<1.0
5	Total Dissolved Solids (as TDS) in mg/l	IS 3025 (Part 16): 1984 (RA 2012)	500	2000	202
6	Aluminium (as Al) in mg/l	IS 3025 (Part 55): 2003 (RA 2014	0.03	0.2	<0.01
7	Ammonia as NH_3 in mg/l	IS 3025 (Part 34): 1988(RA 2014)	0.5	No Relaxation	<0.1
8	Anionic Detergents(as MBAS) in mg/l	IS 13428-2005(Annex K)	0.2	1.0	<0.02
9	Boron(as B) in mg/l	IS 13428-2005(Annex L)	0.5	2.4	<0.5
10	Calcium(as Ca) in mg/l	IS 3025 (Part 40): 1991(RA 2014)	75	200	40.2
11	Chloride(as Cl) in mg/l	IS 3025 (Part 32): 1988 (RA 2014)	250	1000	24.6
12	Copper(as Cu) in mg/l	IS 3025 (Part 42): 1992(RA 2014)	0.05	1.5	<0.02
13	Fluoride(as F) in mg/l	APHA 23rd Edition 2017, 4500 F D	1.0	1.5	<0.1
14	Free Residual Chlorine in mg/l	IS 3025 (Part 26): 1986(RA 2014)	0.2	1.0	<0.1
15	Iron (as Fe) in mg/l	IS 3025 (Part 53): 1988(RA 2014)	1.0	No Relaxation	0.12
16	Magnesium(as Mg) in mg/l	IS 3025 (Part 46): 1994(RA 2014)	30	100	8.0
17	Manganese (as Mn) in mg/l	IS 3025 (Part 59): 2006 (RA 2014)	0.1	0.3	<0.02
18	Mineral Oil in mg/l	IS 3025 (Part 39): 1991 (RA 2014)	1.0	No Relaxation	<0.5
19	Nitrate (as NO_3) in mg/l	IS 3025 (Part 34): 1988(RA 2014)	45	No Relaxation	<0.5
20	Phenolic Compounds(as C_6H_5OH) in mg/l	IS 3025 (Part 43): 1992(RA 2014)	0.001	0.002	<0.001
21	Selenium(as Se) in mg/l	IS 15303: 2003 (RA 2013)	0.01	No Relaxation	<0.01
22	Sulphate (as SO_4) in mg/l	IS 3025 (Part 24): 1986 (RA 2014)	200	400	29.5
23	Alkalinity(as $CaCO_3$)in mg/l	IS 3025 (Part 23): 1986(RA 2014)	200	600	133.2
24	Total Hardness (as $CaCO_3$) in mg/l	IS 3025 (Part 21): 2013	200	600	133.9
25	Cadmium(as Cd) in mg/l	IS 3025 (Part 41): 1992(RA 2014)	0.003	No Relaxation	<0.002
26	Cyanide(as CN) in mg/l	IS 3025 (Part 27): 1986(RA 2014)	0.05	No Relaxation	<0.02
27	Lead(as Pb) in mg/l	IS 3025 (Part 47): 1994 (RA 2014)	0.01	No Relaxation	<0.01
28	Mercury(as Hg) in mg/l	IS 3025 (Part 48): 1994(RA 2014)	0.001	No Relaxation	<0.001
29	Arsenic(as As) in mg/l	IS 3025 (Part 37): 1988 (RA 2014)	0.01	No Relaxation	<0.01
30	Zinc(as Zn) in mg/l	IS 3025 (Part 49): 1994 (RA 2014)	5	15	<0.02
31	Total Chromium (as Cr) in mg/l	IS 3025 (Part 52): 2014(RA 2014)	0.05	No Relaxation	<0.05

for **Qualissure Laboratory Services**

Reviewed & Authorized By

(Authorized Signatory)

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Qualissure Laboratory Services

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Mob. No. : 9831287086
9830093976

~~DOC NO : QLS/SAMP/08-D/00~~

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	Report No.	: QLS/W/22-23/C/212A
	Date	: 05.08.2022
	Sample No.	: QLS/ W/22-23/212
	Sample Description	: Drinking Water
	Sample Mark/Location	: DM Plant Water
	Sample Drawn On	: 26.07.2022
	Date of Performance(s)	: 27.07.2022-01.08.2022
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Sl. No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 Amd. 1 , 2 & 3		Result
			Acceptable Limit	Permissible Limit	
1.	Taste	IS 3025(Part 7 & 8): 1984 (RA 2002)	Agreeable	Agreeable	Agreeable
2.	Molybdenum as Mo in mg/l	APHA 23rd Edition, 2017, 3113B	0.07	No Relaxation	<0.05

For Qualissure Laboratory Services
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Email : qualissure@gmail.com; info@qualissure.com ; Mob.No. 98312 87086 ; 9830093976

TC-6271
DOC NO : QLS/SAMP/08-D/00

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, PaschimBardhaman, Pin:713 344	ULR No.	: TC627122000004231F
	Report No.	: QLS/W/22-23/C/211
	Date	: 05.08.2022
	Sample No.	: QLS/ W/22-23/211
	Sample Description	: Drinking Water
	Sample Mark/Location	:Cooler Near Canteen
	Sample Drawn On	: 26.07.2022
	Date of Performance(s)	: 27.07.2022-01.08.2022
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

(A) Microbiological Analysis

Sl.No.	Characteristic	Limit as Per IS 10500 :2012Amd. 2	Test Method	Result
1.	E.coli/100ml	Not Detectable	IS 15185-2016	Not Detected
2.	Total Coliform Bacteria/100ml	Not Detectable	IS 15185-2016	Not Detected
3.	Faecal Coliform/100ml	---	IS 1622-1981,(RA 2019)	Not Detected

(B) Chemical Analysis

Sl.No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 Amd. 1 , 2& 3		Result
			Acceptable Limit	Permissible Limit	
1	Colour in Hazen Units	IS 3025 (Part 4): 1983 (RA 2012)	5	15	<1.0
2	Odour	IS 3025 (Part 5): 1983 (RA 2012)	Agreeable	Agreeable	Agreeable
3	pH Value at 25^{0}C	IS 3025 (Part 11): 1984 (RA 2012)	6.5-8.5	No Relaxation	7.68
4	Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2012)	1	5	<1.0
5	Total Dissolved Solids (as TDS) in mg/l	IS 3025 (Part 16): 1984 (RA 2012)	500	2000	348
6	Aluminium (as Al) in mg/l	IS 3025 (Part 55): 2003 (RA 2014	0.03	0.2	<0.01
7	Ammonia as NH_3 in mg/l	IS 3025 (Part 34): 1988(RA 2014)	0.5	No Relaxation	<0.1
8	Anionic Detergents(as MBAS) in mg/l	IS 13428-2005(Annex K)	0.2	1.0	<0.02
9	Boron(as B) in mg/l	IS 13428-2005(Annex L)	0.5	2.4	<0.5
10	Calcium(as Ca) in mg/l	IS 3025 (Part 40): 1991(RA 2014)	75	200	75.9
11	Chloride(as Cl) in mg/l	IS 3025 (Part 32): 1988 (RA 2014)	250	1000	39.6
12	Copper(as Cu) in mg/l	IS 3025 (Part 42): 1992(RA 2014)	0.05	1.5	<0.02
13	Fluoride(as F) in mg/l	APHA 23rd Edition 2017, 4500 F D	1.0	1.5	<0.1
14	Free Residual Chlorine in mg/l	IS 3025 (Part 26): 1986(RA 2014)	0.2	1.0	<0.1
15	Iron (as Fe) in mg/l	IS 3025 (Part 53): 1988(RA 2014)	1.0	No Relaxation	0.19
16	Magnesium(as Mg) in mg/l	IS 3025 (Part 46): 1994(RA 2014)	30	100	29.8
17	Manganese (as Mn) in mg/l	IS 3025 (Part 59): 2006 (RA 2014)	0.1	0.3	<0.02
18	Mineral Oil in mg/l	IS 3025 (Part 39): 1991 (RA 2014)	1.0	No Relaxation	<0.5
19	Nitrate (as NO_3) in mg/l	IS 3025 (Part 34): 1988(RA 2014)	45	No Relaxation	<0.5
20	Phenolic Compounds(as C_6H_5OH) in mg/l	IS 3025 (Part 43): 1992(RA 2014)	0.001	0.002	<0.001
21	Selenium(as Se) in mg/l	IS 15303: 2003 (RA 2013)	0.01	No Relaxation	<0.01
22	Sulphate (as SO_4) in mg/l	IS 3025 (Part 24): 1986 (RA 2014)	200	400	34.0
23	Alkalinity(as $CaCO_3$)in mg/l	IS 3025 (Part 23): 1986(RA 2014)	200	600	284.2
24	Total Hardness (as $CaCO_3$) in mg/l	IS 3025 (Part 21): 2013	200	600	264.1
25	Cadmium(as Cd) in mg/l	IS 3025 (Part 41): 1992(RA 2014)	0.003	No Relaxation	<0.002
26	Cyanide(as CN) in mg/l	IS 3025 (Part 27): 1986(RA 2014)	0.05	No Relaxation	<0.02
27	Lead(as Pb) in mg/l	IS 3025 (Part 47): 1994 (RA 2014)	0.01	No Relaxation	<0.01
28	Mercury(as Hg) in mg/l	IS 3025 (Part 48): 1994(RA 2014)	0.001	No Relaxation	<0.001
29	Arsenic(as As) in mg/l	IS 3025 (Part 37): 1988 (RA 2014)	0.01	No Relaxation	<0.01
30	Zinc(as Zn) in mg/l	IS 3025 (Part 49): 1994 (RA 2014)	5	15	<0.02
31	Total Chromium (as Cr) in mg/l	IS 3025 (Part 52): 2014(RA 2014)	0.05	No Relaxation	<0.05

for **Qualissure Laboratory Services**
Reviewed & Authorized By

(Authorized Signatory)

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Email : qualissure@gmail.com
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9830093976

Qualissure Laboratory Services

TEST REPORT

Name & Address of the Customer:		
M/s. Giridhan Metal Pvt. Ltd. Jamuria Industrial Estate, Damodarpur, Jamuria P.O.- Nandi, Paschim Bardhaman, Pin:713 344	Report No.	: QLS/W/22-23/C/211A
	Date	: 05.08.2022
	Sample No.	: QLS/ W/22-23/122
	Sample Description	: Drinking Water
	Sample Mark/Location	: Cooler Near Canteen
	Sample Drawn On	: 26.07.2022
	Date of Performance(s)	: 27.07.2022-01.08.2022
	Sampling Method	: IS 3025(Part 1): 1987 (RA 2019)
	Ref No. Date	: WS22714-001, Dt.14.07.2022

Analysis Result

Sl. No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 Amd. 1 , 2 & 3		Result
			Acceptable Limit	Permissible Limit	
1.	Taste	IS 3025(Part 7 & 8): 1984 (RA 2002)	Agreeable	Agreeable	Agreeable
2.	Molybdenum as Mo in mg/l	APHA 23rd Edition, 2017, 3113B	0.07	No Relaxation	<0.05

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Analysis Reports of Gaseous Emission

Identification Code: 2 4 0 2 2 0 2 2 8 3 2 8

WEST BENGAL POLLUTION CONTROL BOARD

Durgapur Regional Laboratory, Paribesh Bhawan, City Centre, Durgapur- 713 216

Analysis done at:

1.Name of Industry		M/s. Giridhan Metal Private Ltd.	
2.Address		Jamuria Industrial Estate, P.O: Nandi, Jamuria Dist: Paschim Bardhaman - 713344	
3.Category & Type		Red, Iron & Steel (Ferro Div)	
4.Sampling Date		24.02.2022	
5.Duration of Sampling		28 min	
6.Name of Laboratory		M/s.Envirocheck.	
7.Height of Stack from ground (m)		40.0	
8.Cross section of Stack at sampling point (m^2)		4.90625	
9.Stack connected to		SEAF (No.1&2) (9MVA-Each) attached to Common stack* (*Both SEAF were in operation)	
10.Emission due to (Furnace / Boiler)		Reduction of Mn-Ore	
11.Average operational hours of boiler/furnace (per month)		720 Hrs.	
12.APC System (if any)		Bag Filter	
13.Working load of source (MT/hr)		Rated -9 MVA [Running – 5.4 MVA(SEAF-1), 5.2 MVA(SEAF-2)]	
14. Fuel used		Nil (Electrically operated)	
15.Rated Fuel consumption (Kg or l /hr)		-	
16.Working Fuel consumption (Kg or l /hr)		-	
17.Nature of furnace/boiler		Submarged Electric Arc Furnace	
18.Flue Gas Temp (^0C)		72.6	
19.Flue gas velocity (m/s)	8.90	20.Volume of Flue gas drawn in lit (m^3)	1.008
21.Corrected flue gas volume (Nm^3)	0.9528	22.Percentage of CO_2 & O_2	CO_2 =2.4% O_2 = 16.6%
23.To be compensated at (% if required)			
24.Initial wt of thimble (gm)	1.6279	25.Final wt of thimble (gm)	1.6337
26.Wt. of PM (mg)	5.80	27.Particulate matter (mg/Nm^3)	6.09
28.Barometric Pressure Head (mm of Hg)	758	29.Diameter of the nozzle	9.52 mm.
30. Others	-	31. Thimble Number	3816
32. Sampled by		Mr. R. Chakraborty, AEE	

04/03/2022
Date of Reporting

Junior Scientist, DRL

04/03/2022
Scientist, DRL

Copy to:
1. Chief Engineer - Operation & Execution, WBPCB
2. Chief Scientist, WBPCB
3. Env. Engineer (DRO) / Sr. Env. Engineer (ARO), WBPCB
4. Industry

Analysis Reports of Gaseous Emission

Identification Code: 2 4 0 2 2 0 2 2 8 3 2 9

WEST BENGAL POLLUTION CONTROL BOARD

Durgapur Regional Laboratory, Paribesh Bhawan, City Centre, Durgapur- 713 216

Analysis done at:

1.Name of Industry		M/s. Giridhan Metal Private Ltd.	
2.Address		Jamuria Industrial Estate, P.O: Nandi,Jamuria, Dist: Paschim Bardhaman - 713344	
3.Category & Type		Red, Iron & Steel (Ferro Div).	
4.Sampling Date		24.02.2022	
5.Duration of Sampling		25 min	
6.Name of Laboratory		M/s.Envirocheck.	
7.Height of Stack from ground (m)		80.0	
8.Cross section of Stack at sampling point (m^2)		12.57	
9.Stack connected to		Rtary Kiln (350TPD) through WHRB	
10.Emission due to (Furnace / Boiler)		Oxidation of Coal & Reduction of Fe-ore	
11.Average operational hours of boiler/furnace (per month)		720 Hrs.	
12.APC System (if any)		ESP(5 Nos. Fields)	
13.Working load of source (MT/hr)		Rated - 350 TPD (Running - 350 TPD)	
14. Fuel used		Coal	
15.Rated Fuel consumption (Kg or l /hr)		13.4 MT/Hr.	
16.Working Fuel consumption (Kg or l /hr)		13.4 MT/Hr.	
17.Nature of furnace/boiler		Rotary DRI Kiln through WHRB.	
18.Flue Gas Temp (^0C)		109.06	
19.Flue gas velocity (m/s)	11.52	20.Volume of Flue gas drawn in lit (m^3)	1.0
21.Corrected flue gas volume (Nm^3)	0.9452	22.Percentage of CO_2 & O_2	CO_2 =11.8% O_2 = 6.4%
23.To be compensated at (% if required)		12% CO_2	
24.Initial wt of thimble (gm)	1.5885	25.Final wt of thimble (gm)	1.6032
26.Wt. of PM (mg)	14.70	27.Particulate matter (mg/Nm^3)	15.55
28.Barometric Pressure Head (mm of Hg)	758	29.Diameter of the nozzle	9.52 mm
30. Others SO_2		31. Thimble Number	3817
32. Sampled by		Mr. R. Chakraborty, AEE	

04/03/2022
Date of Reporting

Junior Scientist, DRL

04/03/2022
Scientist, DRL

Copy to:
1. Chief Engineer - Operation & Execution, WBPCB
2. Chief Scientist, WBPCB
3. Env. Engineer (DRO) / Sr. Env. Engineer (ARO), WBPCB
4. Industry

Analysis Reports of Gaseous Emission

Identification Code: 2 4 0 2 2 0 2 2 8 3 3 1

WEST BENGAL POLLUTION CONTROL BOARD

Durgapur Regional Laboratory, Paribesh Bhawan, City Centre, Durgapur- 713 216

Analysis done at:

1.Name of Industry		M/s. Giridhan Metal Private Ltd.	
2.Address		Jamuria Industrial Estate, P.O: Nandi,Jamuria, Dist: Paschim Bardhaman - 713344.	
3.Category & Type		Red, Iron & Steel (Sponge Iron Div).	
4.Sampling Date		24.02.2022	
5.Duration of Sampling		30 min	
6.Name of Laboratory		M/s.Envirocheck.	
7.Height of Stack from ground (m)		30.0	
8. Cross section of Stack at sampling point (m^2)		2.2707	
9.Stack connected to		Product Handling & Product Separation House. attached to common stack (Both Units were in operation)	
10.Emission due to (Furnace / Boiler)		Process activity (Handling & separation of sponge Iron).	
11.Average operational hours of boiler/furnace (per month)		720 Hrs.	
12.APC System (if any)		Common Bag Filter	
13.Working load of source (MT/hr)		-	
14. Fuel used		Nil	
15.Rated Fuel consumption (Kg or l /hr)		-	
16.Working Fuel consumption (Kg or l /hr)		-	
17.Nature of furnace/boiler		Product Handling House & Product separation Build	
18.Flue Gas Temp (^0C)		41.8	
19.Flue gas velocity (m/s)	17.07	20.Volume of Flue gas drawn in lit (m^3)	1.020
21.Corrected flue gas volume (Nm^3)	0.9673	22.Percentage of CO_2 & O_2	-
23.To be compensated at (% if required)		-	
24.Initial wt of thimble (gm)	1.4740	25.Final wt of thimble (gm)	1.4784
26.Wt. of PM (mg)	4.40	27.Particulate matter (mg/Nm^3)	4.55
28.Barometric Pressure Head (mm of Hg)	758	29.Diameter of the nozzle	6.35 mm.
30. Others	-	31. Thimble Number	3819
32. Sampled by		Mr. R. Chakraborty ,AEE	

04/03/2022
Date of Reporting

Junior Scientist, DRL

04/03/2022
Scientist, DRL

Copy to:
1. Chief Engineer - Operation & Execution, WBPCB
2. Chief Scientist, WBPCB
3. Env. Engineer (DRO) / Sr. Env. Engineer (ARO), WBPCB
4. Industry

Analysis Reports of Gaseous Emission

Identification Code: 2 4 0 2 2 0 2 2 8 3 3 0

WEST BENGAL POLLUTION CONTROL BOARD

Durgapur Regional Laboratory, Paribesh Bhawan, City Centre, Durgapur- 713 216

Analysis done at:

1.Name of Industry		M/s. Giridhan Metal Private Ltd.	
2.Address		Jamuria Industrial Estate, P.O: Nandi,Jamuria, Dist: Paschim Bardhaman – 713344.	
3.Category & Type		Red, Iron & Steel (Sponge Iron Div).	
4.Sampling Date		24.02.2022	
5.Duration of Sampling		42 min	
6.Name of Laboratory		M/s.Envirocheck.	
7.Height of Stack from ground (m)		30.0	
8.Cross section of Stack at sampling point (m^2)		1.1304	
9.Stack connected to		Cooler Dishcharge of DRI (350 TPD) and Surge Bin attached to common stack (Both units were in operation)	
10.Emission due to (Furnace / Boiler)		Process activity (Cooling & Storage of Sponge Iron)	
11.Average operational hours of boiler/furnace (per month)		720 Hrs.	
12.APC System (if any)		Common Bag Filter	
13.Working load of source (MT/hr)		350 TPD	
14. Fuel used		Nil	
15.Rated Fuel consumption (Kg or l /hr)		-	
16.Working Fuel consumption (Kg or l /hr)		-	
17.Nature of furnace/boiler		Cooler Discharge of DRI kiln & Surge Bin	
18.Flue Gas Temp (^0C)		38.5	
19.Flue gas velocity (m/s)	11.89	20.Volume of Flue gas drawn in lit (m^3)	1.008
21.Corrected flue gas volume (Nm^3)	0.9397	22.Percentage of CO_2 & O_2	-
23.To be compensated at (% if required)		-	
24.Initial wt of thimble (gm)	1.6748	25.Final wt of thimble (gm)	1.6787
26.Wt. of PM (mg)	3.90	27.Particulate matter (mg/Nm^3)	4.15
28.Barometric Pressure Head (mm of Hg)	758	29.Diameter of the nozzle	6.35 mm.
30. Others -		31. Thimble Number	3818
32. Sampled by		Mr. R. Chakraborty, AEE	

04/03/2022.
Date of Reporting

Junior Scientist, DRL

04/03/2022
Scientist, DRL

Copy to:
1. Chief Engineer - Operation & Execution, WBPCB
2. Chief Scientist, WBPCB
3. Env. Engineer (DRO) / Sr. Env. Engineer (ARO), WBPCB
4. Industry

GIRIDHAN METAL PRIVATE LIMITED

Registered Office : "PREMLATA" 39, Shakespeare Sarani, 3rd Floor, Kolkata - 700 017, West Bengal, India
Telefax : +91 33 2289 2734 / 35 / 36, E-mail : giridhanmetal@gmail.com CIN : U27320WB2019PTC234675

GIRIDHAN METAL PRIVATE LIMITED

CORPORATE ENVIRONMENTAL POLICY

For protection of environment and sustainable development, Giridhan Metal Private Limited is committed to abide by environmental norms and various conditions stipulated by the Govt of India during approval of projects at the central as well as at the state levels. In addition to this, Giridhan Metal Private Limited acknowledge the importance of the concept of inter-dependence of all sections of society. In particular, it focuses revolves around the community residing in the immediate vicinity of its steel manufacturing plant where it seeks to actively assist in improving the quality of life.

In line with its abiding concern for preservation of the ecological balance and safeguarding the health and environment of the community, Giridhan Metal Private Limited will always actively demonstrate its firm resolves to protect the environment and its deeply committed to its reputation and respect built over the years in industry and society for its professional of management based on philosophy of the best in business ethics. Giridhan Metal Private Limited has global commitments and also the guidelines on norms and directives of different State and Central Government of India, Giridhan Metal Private Limited has formulated the following Corporate Environmental Policy & Responsibility for effective implementation across the organization in its projects and integrated steel plant. The policy shall:

a) Be appropriate to the nature and scale of the organization's activities, products and services and adopted at the Board level. It shall be documented, implemented, maintained and communicated to all persons working for the organization and on its behalf.

b) Define a specific organisational structure for guidance & implementation.

c) Ensure the required commitment from top management for the allocation of sufficient financial, human, organizational infrastructure and technology resources for its implementation.

d) Shall be integrated with all stages of the project/activity cycle of the organization.

e) Ensure environmental performance of all projects/activities over and above the applicable statutory requirements to which organization have to comply.

f) Shall be aligned with policies and management systems of the organization including the Environmental Management System (EMS) or other environmental performance initiatives.

g) Shall provide for incentives for its employees for achieving corporate environmental targets that go beyond statutory compliance and disincentives for failure to achieve this.

h) Provide for monitoring and review of corporate environmental performance along with the reporting of non-compliance.

i) Monitoring of implantation and review shall be at the level of the Board and the guidance of the Board shall be communicated to all concerned in writing for compliance. Together these shall comprise the corporate Environmental Performance Report, and shall be included in the Organisation's Annual Report.

GIRIDHAN METAL PRIVATE LIMITED JAMURIA

In addition to the above, Giridhan Metal Private Limited will strive to adhere to the following elements of its Corporate Environmental Policy:

1) Operate the manufacturing and other facilities in compliance with all applicable laws and regulations related to environment and health & safety of employees and surrounding communities.
2) Continually improve the environmental performance of organisational process and products through waste minimization and pollution abatement.
3) Minimize consumption of natural resources through the reduction, reuse or recycling of materials, as much as possible.
4) Encourage efficient use of energy, water and utilities
5) Purchase products and services as far as possible, that do the least damage to the environment on a life cycle basis.
6) Promote environmental awareness among the employees and encourage them to work in environmentally responsible manner.
7) Communicate the environmental commitment and performance of the organization to its clients, customers and the public.
8) Develop and maintain appropriate emergency and response programs where required by legislation or where significant health, safety or environmental hazards exist.

Develop and maintain greenery in and around its mines, plants and other project units.

Implementation of the Corporate Policy

Resources, Roles and Responsibility:

Giridhan Metal Private Limited shall have an organization structure to oversee the effective implementation of corporate Environment Policy. This structure shall define key responsibilities within the various levels of the organization for policy implementation and shall include involvement at all the levels throughout the organization. An Organization structure in this regard is shown below:

The management shall ensure availability of resources essential to implement the corporate environment policy across its all operational and project units. Resources shall include human resources, organizational infrastructure, technology and financial resources. Roles and responsibilities shall be defined and documented to facilitate the effective implementation of the environment policy.

As part of the existing Board structure, Audit & Compliance reporting team shall also oversee the environmental status inclusive of the conditions prescribed under various environmental consents and clearances, as and when obtained from various State and Central Govt authorities, as well as the corporate norms, standards and targets that exceed the legal compliance requirements.

The below organizational structure Management Cell is responsible for any non-compliance/ infringement/ deviation/ violation of the environmental or forest norms under the supervision of Board of Directors.

GIRIDHAN METAL PRIVATE LIMITED JAMURIA

GIRIDHAN METAL PRIVATE LIMITED

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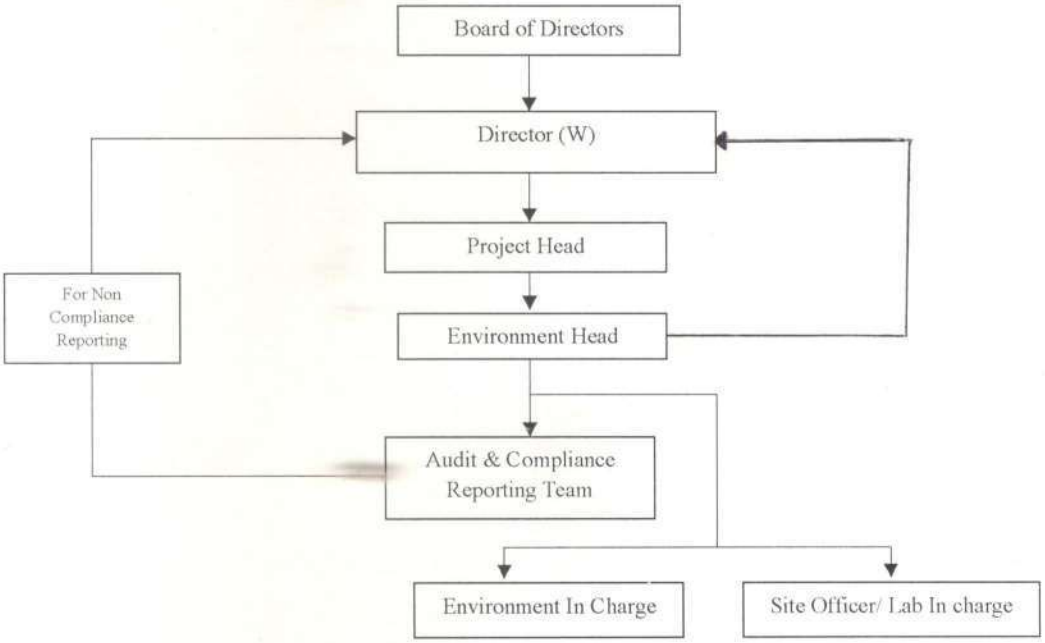

Documentation:

The policy shall be made available on the Giridhan Metal Private Limited's website and also be available in hard copy. The planning, implementation and monitoring of the organizational environmental performance shall be documented. All achieved milestones will be supported by documentary evidence in the form of photographs, monitoring records and /or reports, wherever applicable.

Transparency in the implementation of Environmental policy

Monitoring will be conducted periodically as per relevant norms framed by SPCB or MoEFCC or any other statutory authorities. It shall serve to drive accountability and transparency and provides for learning to implement in future initiatives. Giridhan Metal Private Limited shall implement a monitoring mechanism by its defined organizational structure with clear roles & responsibilities for every operational and project units by creating a register specifying all the regulatory compliances and clearance conditions that have been imposed by the Ministry or other public authorities. Giridhan Metal Private Limited shall also prepare Annual Environmental performance report and include it in its Annual Report.

The policy has been passed by the Board of Directors of Giridhan Metal Private Limited in compliance with the circular issued by Ministry of Environment, Forest and Climate Change. All issues related to Environment specifically non compliances be placed before the Board and the Head of the Plant should submit a report on the same before the ensuing meeting along with all the corrective measures taken thereon.

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Annexure – 1

GIRIDHAN METAL PRIVATE LIMITED

Environment Policy

Protection of environment is of prime concern and an important business objective at Giridhan Metal Private Limited. With a leading role in providing services in Manufacturing industry value chain in India, Giridhan Metal Private Limited is conscious of its responsibility towards creating, maintaining and ensuring a safe and clean environment for sustainable development. In particular Giridhan Metal Private Limited is committed to;

1) Operate the manufacturing and other facilities in compliance with all applicable laws and regulations related to environment and health & safety of employees and surrounding communities.
2) Continually improve the environmental performance of organisational process and products through waste minimization and pollution abatement.
3) Minimize consumption of natural resources through the reduction, reuse or recycling of materials, as much as possible.
4) Encourage efficient use of energy, water and utilities
5) Purchase products and services as far as possible, that do the least damage to the environment on a life cycle basis.
6) Promote environmental awareness among the employees and encourage them to work in environmentally responsible manner.
7) Communicate the environmental commitment and performance of the organization to its clients, customers and the public.
8) Develop and maintain appropriate emergency and response programs where required by legislation or where significant health, safety or environmental hazards exist.
9) Develop and maintain greenery in and around its mines, plants and other project units.

Date 04 MAR 2020

Sanjay Agarwal
Director

GIRIDHAN METAL PRIVATE LIMITED
JAMURIA

কোভিড রুখতে পদক্ষেপ পশ্চিম বর্ধমানে ■ শয্যা বাড়ল বাঁকুড়া-কালনায়

বেসরকারিকরণ

হয়েছিল। বাকি জায়গায় মাস্ক বাধ্যতামূলক করে অল্প দামে এখনও খাবার দেওয়া হচ্ছে। তাহলে বর্ধমানে কেন বন্ধ? কারণ জানাতে পারছেন না প্রশাসনের কর্তারা।

প্রকল্প চালু হওয়ার পর থেকে মাত্র ৫ টাকায় বিনিময়ে ডিম-ভাত খেতে প্রতিটি ক্যান্টিনে উপচে পড়ে ভিড়। উপকৃত হন বহু গরিব মানুষ। অথচ হঠাৎ করে বর্ধমান শহরে থাকা ক্যান্টিনটি বন্ধ হয়ে গিয়েছে। বেশ কারও তেমন কোনও হেলদোল নেই। মঙ্গলবারও তিনকোনিয়া চত্বরে গিয়ে দেখা গেল, ক্যান্টিনের বন্ধ গেটের মধ্যে দিয়ে উঁকি দিচ্ছেন বেশ কয়েকজন লোক। তাঁদের মধ্যে অমিত সাউ নামে এক ব্যক্তি বলেন, 'পাঁচ টাকায় বর্ধমানে কোথাও পেট ভরে খেতে পাব না। এটা চালুর পর আমাদের মতো গরিব মানুষের কাছে আশীর্বাদ হয়ে উঠেছিল। কিন্তু বন্ধ হয়ে যাওয়ায় খুব সমস্যায় পড়েছি। এর আগে ১০ দেখছি কেউ নেই।'

মুলত গরিব মানুষের মুখে পুষ্টিকর খাবার তুলে দিতেই এই প্রকল্প চালু করেছিলেন মুখ্যমন্ত্রী। নিজেই নামকরণ করেছিলেন 'মা' ক্যান্টিন। কিন্তু বর্ধমানে কেন এ ভাবে বন্ধ হয়ে গেল, সে বিষয়ে জেলা প্রশাসনের কোনও আধিকারিকের কাছেই খবর নেই। জেলা প্রশাসনের পদস্থ এক কর্তা বলেন, 'নির্বাচন নিয়ে দম ফেলার সময় নেই, সেখানে ৫ টাকার ডিম-ভাত কেন বক্তব্য, 'এটা খুবই অন্যায় হয়েছে। কাউকে কোনও ভাবে কিছু না জানিয়ে এ ভাবে কোনও প্রকল্প বন্ধ করা যায় নাকি। সরকার বন্ধ করার কোনও নির্দেশ দেয়নি। বিষয়টি নিয়ে আমি জেলাশাসকের সঙ্গে কথা বলব।'

বর্ধমান পুরসভার নির্বাহী আধিকারিক অমিত গুহ অবশ্য বলেন, 'সাময়িক একটা সমস্যার কারণে দু'দিন বন্ধ হয়েছে। আবার ক্যান্টিন খোলার বিষয়ে আমরা ব্যবস্থা নিচ্ছি।'

মাথায় ভেঙে পড়ল জীর্ণ বাড়ির বিম, মৃত বিমাকর্মী

এই সময়, আসানসোল: পুরোনো জীর্ণ বাড়ির কাছের বিম মাথায় ভেঙে পড়ায় মৃত্যু হল এক তরুণের। মৃত ওই তরুণের নাম কার্তিক দে। তাঁর বাড়ি রানিগঞ্জের কুমার বাজারে। মঙ্গলবার দুপুরে দুর্ঘটনাটি ঘটে রানিগঞ্জের তিলক রোডের পাবলিক লাইব্রেরির সামনে। ফুটপাথ ধরে যাচ্ছিলেন কার্তিক। তখনই আচমকা ওই দোতলা বাড়ির কাঠের বিম ভেঙে পড়ে। ময়না-তদন্ত হলে এদিন বিকেলে মৃতদেহ রানিগঞ্জের মাড়োয়াড়ি হাসপাতাল লাগোয়া ৬০ নম্বর জাতীয় সড়কে রেখে অবরোধ করেন স্থানীয় বাসিন্দারা। তাঁদের দাবি, মৃতের পরিবারকে উপযুক্ত ক্ষতিপূরণ দিতে হবে।

রানিগঞ্জ

স্থানীয় সূত্রে জানা গিয়েছে, সাইকেলে নিজের বাড়ি থেকে রানিগঞ্জ বাজারের দিকে যাচ্ছিলেন এলআইসির এজেন্ট কার্তিক। পথে তিলক রোডে তিলক পুস্তকালয়। সেখানেই আচমকা একটি দোতলা বাড়ির কাঠের বিম ভেঙে পড়ে তাঁর মাথায়। গুরুতর জখম কার্তিককে প্রথমে নিয়ে যাওয়া হয় মাড়োয়ারি রিলিফ হাসপাতালে। শারীরিক পরিস্থিতি সঙ্কটজনক হওয়ায় তাঁকে অন্য কোনও বড় হাসপাতালে নিয়ে যাওয়ার জন্য বলা হয়। কিন্তু একটি বেসরকারি হাসপাতালে নিয়ে যেতে গেলে পথেই তাঁর মৃত্যু হয়। পুরোনো ওই বাড়ির মালিক গিরিধারীলাল গনেরিওয়াল জানিয়েছেন, দোতলা বাড়িটির উপরের অংশ দীর্ঘ দিন ধরে বন্ধ। নীচে একটি দোকান রয়েছে। সেই দোকান মালিক ২০ বছর ধরে ভাড়া নিয়ে রাখলেও তিনি দোকান দোকান খোলেন না। গনেরিওয়ালের দাবি, বাড়ি মেরামতির জন্য ওই দোকান মালিককে বহুবার উঠে যেতে বলা হলেও তিনি কর্ণপাত করেননি। দোকানের চাবি দোকানদারের কাছেই থাকে। ভাড়াও দিতেন না বলে অভিযোগ। গনেরিওয়ালের বক্তব্য, 'বাড়িটি ভেঙে পড়ার মতো তত ক্ষতিগ্রস্ত ছিল না। ভদ্রলোকের কপাল খারাপ তাই বিম ভেঙে মাথায় পড়ল।' এক জন মানুষের মমান্তিক মৃত্যুর পর এমন মন্তব্যে বিস্মিত এলাকার বাসিন্দারা। খবর পেয়ে রানিগঞ্জ থানার পুলিশ ঘটনাস্থলে পৌঁছে এলাকা ঘিরে দেয়। জিজ্ঞাসাবাদের জন্য গনেরিওয়াল ও দোকান মালিককে থানায় নিয়ে গিয়েছে পুলিশ। এদিনই আসানসোলের বন্টিন বাজারে ভেঙে পড়ে পুরোনো বহুতলের একটি অংশ। তবে হতাহতের কোনও খবর নেই।

অভিযোগ, রানিগঞ্জ শহরে এমন বহু পুরোনো বাড়ি রয়েছে যেগুলো যে কোনও মুহূর্তে ভেঙে বড়সড় দুর্ঘটনা ঘটাতে পারে। মানুষের মৃত্যুও অস্বাভাবিক নয়। পুরসভা মাঝেমধ্যে নোটিস দিয়ে তাদের দায়িত্ব শেষ করে। এ বিষয়ে পুরসভার রানিগঞ্জের ইঞ্জিনিয়ার ইন্দ্রজিৎ কোনার কোনও মন্তব্য করতে রাজি হননি। তবে তিনি ঘটনাস্থলে যান। সেখানে পরিস্থিতি খতিয়ে দেখেন। ওই বাড়ির কিছু অংশ ভেঙে দেওয়ার কাজ শুরু হয়েছে।

শ্মশানে অশান্তি

এই সময়, বর্ধমান: করোনা আক্রান্ত রোগীর দেহ দাহ করা নিয়ে দু'পক্ষের মধ্যে গন্ডগোল বাধে বর্ধমান শহরের নির্মল ঝিল শ্মশানে। বর্ধমান পুরসভা থেকে ঘোষণা করা হয়েছে রাত ১০টা থেকে ভোট ৫টা পর্যন্ত শুধুমাত্র করোনায় মৃতদের দাহ করা হবে। যদিও মোটা টাকার বিনিময়ে তার আগেই করোনায় মৃতের দাহ করা হচ্ছে বলে অভিযোগ। রকেট সাহা নামে এক শ্মশানযাত্রী বলেন, 'এক দালাল ১০-১৫ হাজার টাকার বিনিময়ে আমাদের মৃতদের ফেলে রেখে আগে করোনায় মৃতের দেহ ঢুকিয়ে দিল। হাতেনাতে বিষয়টি ধরায় ওরা স্বীকার করেছে।' গন্ডগোলের সময় অভিযুক্ত ওই ব্যক্তিকে মারধর করা হয়।

ঘরে বাইরে

টেলিভিশন

হিন্দি/ইংরেজি সিনেমা

■ **মুভিজ নাউ**

১১.৫৬ এলিয়েন্স ইন দ্য অ্যাটিক ১৩.২৬ গোল্ডেনআই ১৮.৫৩ দ্য ইকুলাইজার-২ ২১.০০ ডাই অ্যানাদার ডে ■ সোনি পিক্স ১২.০১ অ্যানাবেল: ক্রিয়েশন ১৩.৪৫ ইট ১৫.৫০ দ্য ইনক্রেডিবল হাল্ক ১৭.৪৫ ফাস্ট অ্যান্ড ফিউরিয়াস-৪ ■ স্টার মুভিজ ১১.৪৫ দ্য বস বেবি ১৩.১৫ দ্য গুড ডায়নোসর ১৬.১৫ অ্যাভেঞ্জারস: এজ অফ আল্ট্রন ২১.০০ পার্ল হারবার ■ অ্যান্ড পিকাচার্স ১৪.১৪ জিগার ১৯.৫০ রোবোট ■ বিফোরইউ মুভিজ ০৭.০০ বাদশা ১২.৫৪ চায়না গেট ১৯.০০ মিস্টার নটওরলাল

হিন্দি বিনোদন

■ **স্টার প্লাস**

১৯.০০ শৌর্য অউর আনোখি কাহানি ১৯.৩০ শাদি মুবারক ২০.০০ গুম হ্যা কিসিকে পেয়ার মে ২০.৩০ ইমলি ■ কালার্স ১৮.০০ ব্যারিস্টারবাবু ১৮.৩০ বিগবস ২০.০০ তুম কউন পিয়া ২১.০০ ইস্ক মে মারজাওয়া-২ ২১.৩০ ছোটি সর্দারনী ■ জিটিভি ১৬.০০ পবিত্র রিস্তা ১৭.০০ যোধা আকবর ১৯.০০ আপনা টাইম ভি আয়েগা ২০.৩০ তুঝসে হ্যায় রাবতা ■ সোনি ১৯.০০ মেরা সাই: শ্রদ্ধা অউর সাবুরি ১৯.৩০ পণ্যশ্লোক অহল্লা বাই ২০.৩০ ইন্ডিয়াওয়ালি মা ২২.০০ স্টোরি নয় মাছু কি

বাং

২০.০০ বর রিমলি ২০. হয় ■ আ ২০.০০ বা ■ কালার্স দেবাংশী ২ সান বাংলা ২১.৩০ হা বিদ্দাস ১৬ সিনেমা ১২

কোন হলে কোন ছবি

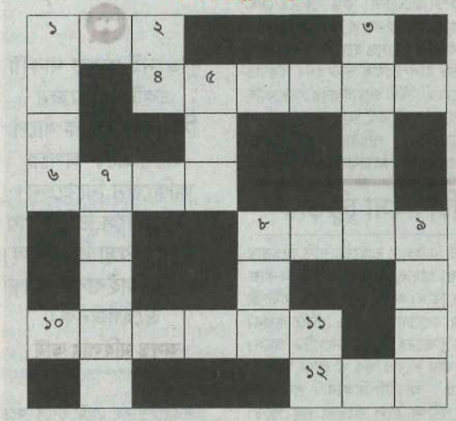
ইংরেজি

■ **দ্য ফাদার:** আইনক্স: (কোয়েস্ট) ১১.৪৫, ১৪.৩৫, ১৯.৪৫, (সাউথ-সিটি) ১২.১৫, ১৪.৩০, ২০.৩৫,

■ **গডজিলা v/s কং:** (কোয়েস্ট) ১২.০০, ১৪.৫০, (সিটিসেন্টার) ১৩.১৫, ১৬.০০, ১৮.৪৫, (স্বভূমি) ১২.৫০, ১৫.৪০, ১৮.৩০, (হাইল্যান্ড) ১৩.৩০, ১৬.১৫, ১৯.০০, (লিলুয়া) ১২.৪০, ১৮.৩০, (সাউথসিটি) ১২.১৫, ১৫.০৫, ১৭.৫৫, ২০.৪৫,

বাংলা

শব্দ-লব্ধ ৯২৮



সমাধান ৯২৭

পাশাপাশি: ১। দারুণ ৪। প্রকৃত অবস্থা ৬। অতি অস্থির বা উৎকণ্ঠিত ৮। আঁক কষা ১০। বিরোধের অভাব ১২। প্রবাহ

উপর-নীচ: ১। নিয়মশূণ্য, অরাজক ২। প্রবল ৩। কৌশলগত ৫। অতিক্রম ৭। মালিকহীন ৮। কিংবা ৯। চোর ১১। পাতা

চোখ রাখুন

■ **অ্যানি** হান্টার: রি ওয়াইল্ড ২০.৩০ দ্য লায়ন কিংডম ■ ডি আননোন উইথ জোশ গেটস ২০.০০ লা

আজ

■ **এরিস/মেষ** (২০ মার্চ-১৯ এপ্রিল) হঠাৎ কিছু আর্থিক সমস্যার কারণে মানসিক উদ্বেগ বাড়তে পারে। সংসারে অশান্তির সম্ভাবনা।

■ **টরাস/বৃষ** (২০ এপ্রিল-১৯ মে) ব্যবসায় মন্দাভাব কেটে যাবে। গৃহে শান্তি বজায় থাকবে। স্বাস্থ্য চলনসই।

■ **জেমিনি/মিথুন** (২০ মে-২০ জুন) গৃহশান্তি বজায় থাকবে। বাতের বেদনা বাড়তে পারে। প্রেমে হতাশা যোগ।

■ **ক্যানসার/ককট** (২১ জুন-২১ জুলাই) অর্থাগম ভালো হবে। শত্রুদের থেকে সাবধানে থাকবেন। ত্রিকোণ প্রেমের সম্ভাবনা।

■ **লিও/সিংহ** (২২ জুলাই-২১ অগস্ট) অর্থাগম ভালো হবে। সন্তানের সাফল্যের খবর পেতে পারেন। হঠাৎ আনন্দ দায়ক খবর পেতে পারেন।

■ **ভার্গো/কন্যা** (২২ অগস্ট-২০ সেপ্টেম্বর) স্বাস্থ্য খুব ভালো যাবে না। কর্মস্থলে কিছু সমস্যা দেখা দিতে পারে।

■ **লিব্রা/তুলা** (২১ সেপ্টেম্বর-২২ অক্টোবর) প্রেমে মনকষাকষি হতে পারে। গৃহশান্তি ব্যাহত হতে পারে। স্ত্রীর স্বাস্থ্যের যত্ন নিন।

■ **স্করপিও/বৃশ্চিক** (২৩ অক্টোবর -২১ নভেম্বর) বকেয়া আদায় হবে। গৃহে শান্তি থাকবে। স্বাস্থ্য চলনসই।

■ **স্যাজিটেরিয়াস/ধনু**(২২নভেম্বর -২২ ডিসেম্বর) শুভাশুভ মিশ্রদিন।

ब्रीफ न्यूज

कोरोना. बिहार में संक्रमण दर 12.56%, पटना में सर्वाधिक

सूबे में 12,604 नये मरीज मिले

अन्य लोग घायल

भभुआ शहर (कैमूर). एक अनियंत्रित ट्रैक्टर ने दो वर्षीय बच्चे का इलाज करा कर लौट रहे बाइक सवार को जोरदार टक्कर मार दी. इस हादसे में बाइक पर पीछे बैठी महिला की मौत हो गयी, जबकि बाइक चला रहा युवक और दो वर्षीय बच्चा गंभीर रूप से घायल हो गया. मृतक महिला भगवानपुर थाना क्षेत्र के जैतपुरखुर्द गांव निवासी गंगा सिंह यादव की पत्नी राजकुमारी देवी हैं. वहीं, युवक अधौरा थाना क्षेत्र के चैनपुरा गांव निवासी मोहम्मद अफजल बताया गया है. गंभीर रूप से घायल मोहम्मद अफजल को सदर अस्पताल में रेफर कर दिया गया. बालक की हालत खतरे से बाहर है.

वाहन में मास्क लगाना अनिवार्य

संवाददाता ▷ पटना

परिवहन विभाग के सचिव संजय कुमार अग्रवाल ने कोरोना संक्रमण से बचाव के लिए बसों और अन्य वाहनों के परिचालन से संबंधित सभी जिला अधिकारी, वरीय पुलिस अधीक्षक, पुलिस अधीक्षक को दिशा- निर्देश दिया है. अगर सफर के दौरान लोग बिना मास्क के मिलेंगे, तो उनके खिलाफ कार्रवाई होगी और वाहन को भी जब्त कर लिया जायेगा. अग्रवाल ने कहा कि कोरोना का संक्रमण बढ़ रहा है, यह चिंता का विषय है. इसलिए जरूरी है कि सभी लोग कोविड के प्रावधानों का पालन करें. राज्य सरकार द्वारा जारी दिशा-निर्देशों का पालन करें और इसकी निगरानी सभी जिलाधिकारी करें. उन्होंने कहा कि भीड़-भाड़ से बचें.

- सभी यात्रियों को मास्क लगवाना सुनिश्चित करें ड्राइवर, क्षमता से आधी सीट पर ही बैठाएं
- वाहन को प्रतिदिन धुलवाना और समय-समय पर सैनिटाइजेशन कराएं
- ड्राइवर और कंडक्टर को साफ कपड़े और मास्क-ग्लब्स पहनने होंगे
- वाहनों के अंदर और बाहर कोविड-19 के संक्रमण से बचाव के उपायों संबंधी पोस्टर लगाएं
- वाहनों में चढ़ने-उतरने के समय सोशल डिस्टैंसिंग का पालन सुनिश्चित कराया जायेगा

शिक्षकों के वेतन के लिए 20.47 अरब रुपये जारी

संवाददाता ▷ पटना

वित्तीय वर्ष 2021-22 में माध्यमिक और उच्च माध्यमिक शिक्षकों के वेतन के लिए शिक्षा विभाग ने 20.47 अरब रुपये जारी कर दिये हैं. इस पैसे से जिला परिषद और नगर निकायों के तहत नियुक्त शिक्षकों को वेतन मिलेगा. जानकारी के मुताबिक, माध्यमिक और उच्च माध्यमिक शिक्षकों की सैलरी में एक अप्रैल से प्रस्तावित पंद्रह फीसदी वेतन की वृद्धि की राशि अभी नहीं जोड़ी गयी है. इसके लिए शिक्षा विभाग अलग से एक औपचारिक आदेश जारी करेगा. औपचारिक आदेश के जारी होने तक पहले की भांति वेतन मिलेगा. उल्लेखनीय है कि 20 सितंबर 2020 को विभागीय संकल्प जारी किया गया था कि पंचायती राज संस्थाओं के तहत कार्यरत शिक्षकों एवं पुस्तकालय अध्यक्षों के वर्तमान वेतनमान में एक अप्रैल 2021 से 15 फीसदी का इजाफा किया जायेगा. विभागीय जानकारी के मुताबिक, माध्यमिक और उच्च माध्यमिक स्कूलों में तैनात पुस्तकालय अध्यक्षों को भी इससे वेतन मिल सकेगा. इस राशि में से नगर निगम के शिक्षकों के लिए 1.54अरब, नगर पालिकाओं/नगर परिषदों के शिक्षकों के लिए 1.66 अरब, नगर पंचायतों /अधिसूचित समितियों के लिए 1.32 अरब से अधिक और जिला परिषद के माध्यमिक शिक्षकों के लिए 15.90 अरब से अधिक रुपये स्वीकृत किये गये हैं. इन चारों मदों के लिए उपबंधित राशि 22.28 अरब से अधिक राशि निर्धारित की गयी है.

शहरी निकायों में होगा सैनिटाइजेशन का काम : डिप्टी सीएम

पटना. कोरोना महामारी के बढ़ते प्रकोप से बचने के लिए राज्य के सभी शहरी निकायों में व्यापक सेनेटाइजेशन का काम किया जायेगा. मंगलवार को उप मुख्यमंत्री व नगर विकास एवं आवास विभाग के मंत्री तारकिशोर प्रसाद ने वीडियो कॉन्फ्रेंसिंग के माध्यम से पूर्णिया, कोसी, सारण, तिरहुत एवं भागलपुर प्रमंडल के अंतर्गत आनेवाले नगर परिषदों के कार्यों की समीक्षा की. उन्होंने कहा कि कोरोना संक्रमण के दौरान विभागीय दायित्व अत्यंत महत्वपूर्ण है. अधिकारी पूरी संवेदनशीलता के साथ काम करें. सभी शहरी वार्डों में सोडियम हाइपोक्लोराइड, ब्लीचिंग पाउडर का छिड़काव कराया जाये. डिप्टी सीएम ने निर्देश दिया कि जल-जमाव के स्थायी समाधान के लिए विस्तृत कार्य योजना बनाये.

बाइक ने ट्रैक्टर-ट्रॉली में मारी टक्कर, जीजा और साले की मौत

रामपुर (कैमूर). तेज रफ्तार एक बाइक अनियंत्रित होकर ट्रैक्टर-ट्रॉली से जा टकरायी. इस हादसे में बाइक पर सवार जीजा और साले की मौत हो गयी, जबकि साले की पत्नी गंभीर रूप से घायल है. घटना मंगलवार सुबह सोनहन थाना क्षेत्र स्थित शिवपुर गांव के समीप की है.

मृतकों में बेलाव थाना क्षेत्र के खरेंदा गांव निवासी रामलाल राम व रोहतास जिले के चेनारी थाना क्षेत्र के कर्मा गांव निवासी रामायण राम हैं. घायल रामायण राम की पत्नी कस्तूरा देवी है.

पहले पेज से...

टीके की बढ़ती मांग...

लिए बेहतर स्थिति में हैं और सुप्रीम कोर्ट पूरक भूमिका निभा रहा है. इसलिए शीर्ष अदालत के हस्तक्षेप को सही परिप्रेक्ष्य में समझना चाहिए, क्योंकि कुछ मामले क्षेत्रीय सीमाओं से भी आगे हैं. अदालत ने कोविड प्रबंधन मामले में मदद के लिए वरिष्ठ अधिवक्ता जयदीप गुप्ता और मीनाक्षी अरोड़ा को न्याय मित्र भी नियुक्त किया. मालूम हो कि सुप्रीम कोर्ट ने कोरोना की गंभीर स्थिति का पिछले दिनों स्वतः संज्ञान लिया था.

गाड़ी से टमाटर निकालते हुए पुलिस का वीडियो वायरल

पटना. मामला कदमकुआं थाना क्षेत्र के भिखना पहाड़ी का है. जहां गाड़ी के पीछे से एक पुलिसकर्मी जल्दी-जल्दी टमाटर निकाल कर अपनी झोली में भर रहा है. चोरी-छिपे टमाटर निकालते हुए पुलिसकर्मी का किसी ने वीडियो बना लिया और इसे वायरल कर दिया. एक मालवाहक गाड़ी, जिस पर टमाटर की पेटियां लदी है. शायद किसी सब्जी मंडी में जा रही थी, तभी भिखना पहाड़ी चौराहे पर खड़ी पुलिस की नजर गाड़ी पर पड़ी. इसके बाद एक पुलिसकर्मी गाड़ी को रोकता है. कुछ देर बात करने के बाद जल्दी से पीछे आता है और अपनी झोली में टमाटर निकाल कर भरने लगता है. पुलिसकर्मी तब तक टमाटर निकालते रहता है, जब तक कि गाड़ी चलने नहीं लगती है. सोशल मीडिया पर यह वीडियो खूब वायरल हो रहा है.

11वीं में एडमि... जल्द विषय ...

पटना. सीबीएसइ और काउंसिल फॉर द इंडियन स्कूल एग्जामिनेशंस (सीआइएससीइ) की ओर से 10वीं क...

12 मई, 2021
पूर्वाह्न 11.00 बजे से

इस विज्ञप्ति से संबंधित विस्तृत नियम एवं श... उम्मीदवारगण हमारी वेबसाइट www.Division>Kharagpur>Department हैं। इसके अलावा, संशोधनी अथवा संयोजनी... पर प्रकाशित किया जाएगा। कृपया समय-स...

(इम्प्लॉयमेंट नोटिस नं. 02/21 (मेड.) सीए...

(PR-44)

दक्षिण ...

पूर्व ...

ई-निविदा सूचना सं. : एनआईटी/02/21/16, ... पूर्व रेलवे द्वारा निम्नलिखित मदों की आप... क्रम संख्या; निविदा संख्या; विवरण; बयाना... निम्नानुसार है:-1; 05191089बी; सिलवर्ड ग्ल... बजे। 2; 10201345ए; रिले क्यूडी की प्राप्ति... असेम्बली; ₹ 83,520। 4; 20201870; ½"... 5; 20202182; लेवेलिंग वाल्व की प्राप्ति अ... (क्र.सं. 2 से 5 प्रत्येक के लिए)। 6; 11204... की प्राप्ति आदि; ₹ 81,270. 7; 21201057... 50/आरएफ-361) की प्राप्ति आदि; ₹ 2,2... (क्र.सं. 6 और 7 प्रत्येक के लिए)। 8; 212... ।।88185 या समकक्ष की प्राप्ति आदि; ₹ ... 21201155; हाइट के लिए पैकिंग प्लेट; ₹ ... 21201250; बीओएक्सएन वागन के हैंड ब्रेक... 03.06.2021 को दोपहर 1.30 बजे। 11; ... डीआई की प्राप्ति आदि; ₹ 0 और 07.06.202... बोल्ट के लिए ब्रैकेट; ₹ 0 और 24.06.2021 ... बोगी के लिए ब्रेक हेड की प्राप्ति आदि; ₹ ... 21201260; फेब्रिकेटेड हैंड ब्रेक व्हील (... 21201261; कैसनब बोगी के लिए ब्रेक विय... को दोपहर 1.30 बजे (क्र.सं. 14 और 15 प्र... के साथ बीएमबीएस हेतु स्लैक एडजस्टर में... 4,94,460। 17; 21201365ए; हैंड ब्रेक ... निर्मित सहित 10" ब्रेक सिलिंडर की प्राप्ति ... 1.30 बजे (क्र.सं. 16 और 17 प्रत्येक के लिए... (एपीएम) डिवाइस की प्राप्ति आदि; ₹ 2,... 19; 21201379ए; स्टाइकर कास्टिंग विय... दोपहर 1.30 बजे। द्रष्टव्य : ऊपर उल्लिखित ... से अनुरोध है कि वे आईआरईपीएस वेबसा... बोलियाँ ऑनलाइन जमा करें। ऊपर उल्लिखि... और अधिक जानकारी के लिए कृपया आई...

निविदा सूचना वेबसाइट:www.er.indianra...

ज्योतिष
ASTROLOGY

सबसे पहले काम करने का वादा 101% शक्तियों के माहिर, गुरूआलोक शास्त्री महाशंकर ना, महामुठकरनी, गृहक्लेश, कारोबार, पति - पत्नी / सास - बहु अनबन आदि # 9720069751

C-5823(RNC)

व्यापार
BUSINESS

मोबाईल नेटवर्क भारत की नं. 1 कंपनी सत्यम मोबाईल नेटवर्क द्वारा अपनी खाली जमीन, छत, प्लॉट, खेत पर मोबाईल नेटवर्क लगवाएं एडवांस - 60 लाख किराया - 25,000 नौकरी -25,000 + बाईक 09432790726 08004109036

Hindustan Group द्वारा अपनी खाली खेत, जमीन, छत, प्लॉट पर नेटवर्क लगवाएं, एडवांस - 90,00,000/- + किराया - 90,000/- + नौकरी + इनोवा # 7000059093, 6265324865

C-5818(RNC)

Galaxy Network Company द्वारा अपनी खाली जमीन, छत पर डिजिटल उपकरण लगवायें, एडवांस - 60,00,000/- किराया - 45,000/- + नौकरी, गाड़ी - 9463416173, 9479667248

C-5837(RNC)

फाइनांस / लोन
FINANCE / LOAN

एडवांस लेते नहीं धोखा देते नहीं, हिन्दुस्तान फाइनेंस करती है सभी लोन 24 घंटों में, ब्याज 2% छूट 50%, धोखा खाए सम्पर्क करें # 08765087341, 09473641974

C-5839(RNC)

सूचना - पाठकों से यह अनुरोध है कि किसी भी पृष्ठों पर छपे विज्ञापनों से संबंधित पैसे का लने-देन या किसी भी एकाउन्ट में पैसे ट्रांसफर करने से पहले स्वयं तथ्यों की जांच-परख कर लें. क्योंकि नौकरी, व्यापार, मनोरंजन, लोन एवं फाईनेंस के नाम पर कुछ लोग धोखाधड़ी एवं ठगी का कारोबार चला रहे हैं, इसके लिए अखबार प्रबंधन जिम्मेवार नहीं होगा. -विज्ञापन प्रबंधक

GIRIDHAN METAL PRIVATE LIMITED

Registered Office : "PREMLATA" 39, Shakespeare Sarani, 3rd Floor, Kolkata - 700 017, West Bengal, India
Telefax : +91 33 2289 2734 / 35 / 36. E-mail : giridhanmetal@gmail.com. CIN : U27320WB2019PTC234675

Date: 24.04.2021

To,
The Chairman
Asansol Durgapur Development Authority
Asansol, Paschim Bardhaman, West Bengal

Ref: Environmental Clearance vide letter no. J-11011/366/2010-IA.II (I) dated 08/04/2021

Dear Sir,

We have obtained Environmental Clearance for Expansion of our existing steel plant by expanding Sponge iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,000 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace (SAF) from 15,000 TPA 30,000 & Captive Power Plant from 16 MW to 42 MW including Waste Heat Recovery Boiler (WHRB) at Jamuria Industrial Estate, Village - Ikra & Damodarpur, Tehsil – Jamuria, District - Paschim Burdwan, West Bengal from Ministry of Environment, Forest and Climate Change, Government of India.

As per the direction contained in the aforesaid Environmental Clearance (EC), kindly receive a copy of the letter J-11011/366/2010-IA.II(I) dated 8th April, 2021.

Thanking you,

Yours faithfully
For Giridhan Metal Private Limited

Sanjay Agarwal
Director

Works . Jamuria Industrial Estate, P.O. Nandi, P.S. Jamuria, Paschim Bardhaman - 713 344, West Bengal, India
Email : giridhanmetaljamuria@gmail.com

GIRIDHAN METAL PRIVATE LIMITED

Registered Office : "PREMLATA" 39, Shakespeare Sarani, 3rd Floor, Kolkata - 700 017, West Bengal, India
Telefax : +91 33 2289 2734 / 35 / 36, E-mail : giridhanmetal@gmail.com CIN : U27320WB2019PTC234675

Date: 24.04.2021

To,
The Mayor
Asansol Municipal Corporation
Asansol, Paschim Bardhaman, West Bengal

Ref: Environmental Clearance vide letter no. J-11011/366/2010-IA.II (I) dated 08/04/2021

Dear Sir,

We have obtained Environmental Clearance for Expansion of our existing steel plant by expanding Sponge iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,000 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace (SAF) from 15,000 TPA 30,000 & Captive Power Plant from 16 MW to 42 MW including Waste Heat Recovery Boiler (WHRB) at Jamuria Industrial Estate, Village - Ikra & Damodarpur, Tehsil – Jamuria, District - Paschim Burdwan, West Bengal from Ministry of Environment, Forest and Climate Change, Government of India.

As per the direction contained in the aforesaid Environmental Clearance (EC), kindly receive a copy of the letter J-11011/366/2010-IA.II(I) dated 8th April, 2021.

Thanking you,

Yours faithfully
For Giridhan Metal Private Limited

Sanjay Agarwal
Director

भारतीय डाक
India Post
SP S S RAJBARI <713358>
GSTN No: 19AAAGR0067F2ZC
EW083664368IN
Counter No:1,OP-Code:RNK
To:THE MAYOR,AMC ASANSOL STATION ROAD
ASANSOL, PIN:713301
From:GIRIDHAN METAL PVT LTD , JAMURIA NAN
Wt:60grams, ,29/04/2021 ,12:42
Amt:41.00
,CGST @9% 3 ,SGST @9%: 3.00
<<Track on www.indiapost.gov.in>>

Works : Jamuria Industrial Estate, P.O. Nandi, P.S. Jamuria, Paschim Bardhaman - 713 344, West Bengal, India
Email : giridhanmetaljamuria@gmail.com

(Construction Site)

GIRIDHAN METAL PRIVATE LIMITED

JAMURIA INDUSTRIAL ESTATE,
P. O. NANDI, P. S. JAMURIA,
PASCHIM BARDHMAN-713344(W.B.)

Expansion of Integrated Steel Plant by expanding Sponge Iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,300 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace (SAF) from 15,000 TPA to 30,000 TPA & Captive Power Plant from 16 MW to 42 MW including Waste Heat Recovery Boiler (WHRB).

A DOCUMENT ON

HAZARDS IDENTIFICATION AND RISK ASSESSMENT

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
DEMOLITION WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	**Hazard**	**Hazard Character**	**Current Risk Control**	**Probability**	**Severity**	**Risk**	
Setting up working platform (Scaffold)	Scaffold rod collapsed and hit a person at site.	Major injury/illness (Long absenteeism, M.C > 14 days).	Use safety net; Proper planning of work.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Heat stress/stroke due to hot working environment.	Near miss/ unsafe act/ unsafe condition.	Workers to take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary.
	Electrocution due to faulty wiring touching metal.	Fatality or permanent disability or irreversible illness	Do not allow electrical wiring through scaffold structures.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Setting up working platform (Ladder)	Slippery, ladder fall.	Fatality or permanent disability or irreversible illness	Buddy system properly secured.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Ladder broke.	Fatality or permanent disability or irreversible illness	Check the ladder properly before use.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Heat stress/stroke due to hot working environment.	Near miss/ unsafe act/ unsafe condition.	Workers to take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary.
	Overstretching.	Near miss/ unsafe act/ unsafe condition.	Workers to take a short break.	3	1	**3**	Additional control shall be proposed when necessary.
	Space constrain.	Near miss/ unsafe act/ unsafe condition.	Training and proper planning of work.	4	1	**4**	Additional control shall be proposed when necessary.
Setting up working platform (Temporary Staging)	Temporary staging broke due to overloading of debris which is not removed.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000).	Training and proper planning of work.	2	2	**4**	Additional control shall be proposed when necessary.
Working environment	Falling from height	Fatality or permanent disability or irreversible illness	Workers wear safety harness; Provide safe working procedure.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Electrocuted due to faulty electrical equipment/dismantling wiring.	Fatality or permanent disability or irreversible illness	Wear proper PPE; Provide safe working/proper handling procedure.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Use of solvents or any other chemical.	First aid cases/medical treatment (M.C between 1 to 3 days)	Proper protective clothing; Training.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Lighting.	First aid cases/medical treatment (M.C between 1 to 3 days)	To provide adequate lighting.	2	2	**4**	Additional control shall be proposed when necessary.
	Falling and drowned.	Fatality or permanent disability or irreversible illness	Fall protection provided; To wear life jacket.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
DEMOLITION WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Working at height	Fall during erection	Severe injury /fatality	Work Permit Procedure, Use of PPEs like Full body harness, fall arrestor and helmet.	4	2	8	BOCW Act 1996 and state rules
	Failure of ladder structure	Failure of ladder structure	Weekly safety inspection	4	2	8	BOCW Act 1996 and state rules
	Tripping or slipping from ladders or stairs	Severe injury /fatality	Work Permit Procedure, Use of PPEs like Full body harness, fall arrestor and helmet.	4	2	8	BOCW Act 1996 and state rules
Welding work	Incompetence of employees	Incompetence employees can result in an injury	BOCW Act 1996 and state rules	3	3	9	Only trained welders must be used, Work Permit System, Procedure for Welding and Cutting Safety.
	Use of damaged welding holder & cable	Electrocution, shock resulting in injury	Electricity Rules 1956	3	3	9	Only trained welders must be used, Work Permit System, Procedure for Welding and Cutting Safety.
	Explosion of cylinder due to mishandling	Burn injury/fatality/	Gas Cylinders Rules 2004	2	2	4	Procedure for Welding and Cutting Safety
	Working in inadequate lighting conditions	eye problem/ headache / other like slip/trip/fall	Light posts have been provided.	2	2	4	Light posts have been provided.
	Use of improper PPE's	Inadequate or wrong PPE could cause injuries	BOCW Act 1996 and state rules	2	2	4	Procedure for selection of PPEs, Procedure for Inspection of PPEs and Safety Devices.
Grinding work at Fabrication Area	Use of improper PPE's	Inadequate or wrong PPE could cause injuries	BOCW Act 1996 and state rules	2	2	4	Procedure for selection of PPEs Procedure for Inspection of PPEs and Safety Devices
	Operation of grinding wheel without wheel guard	Physical injury/fatality	BOCW Act 1996 and state rules	3	4	12	Guards to be ensured on the wheel, Abrasive Wheel Safety Procedure(
	No separate switches for common extension board	Physical injury/fatality	Electricity Rules 1956	2	2	4	Electrical Safety Procedure. Procedure for Electrical Safety Inspection
	Operation of grinding wheel without wheel guard	Physical injury/fatality	Electricity Rules 1956	2	2	4	Guards to be ensured on the wheel, Abrasive Wheel Safety Procedure
	Use of damaged power cables & bare wire connections	Electrical shock, physical injury	Electricity Rules 1956	2	2	4	Electrical Safety Procedure. 28). Procedure for Electrical Safety Inspection

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Gas cutting work	Back fire in gas cutting torch and gas cylinder	Burn injury/fatality	BOCW Act 1996 and state rules	4	4	16	Flash back arrestors are available at cylinder side as well as gas cutting torch, Procedure for Welding and Cutting Safety
	Flash back in gas cutting torch	burn injury	BOCW Act 1996 and state rules	3	3	9	Flash back arrestors are available at cylinder side as well as gas cutting torch, Procedure for Welding and Cutting Safety
	Damage of gas cylinder valve due to roll and fall	Fire/major injury/explosion/fatality	Gas cylinder rules 2004	3	2	6	Procedure for Welding and Cutting Safety
	Improper storage of gas cylinders	Physical injury due to fall of cylinders/explosion/property damage	Gas cylinder rules 2004	3	3	9	Procedure for Welding and Cutting Safety
	Fire/explosion due to heat exposure	Major burn injury/fatality	Gas cylinder rules 2005	2	2	4	Procedure for Welding and Cutting Safety
	Use of inadequate/improper PPE's	Inadequate or wrong PPE could cause injuries	BOCW Act 1996 and state rules	2	3	6	Procedure for selection of PPEs , Procedure for Inspection of PPEs and Safety Devices
Working environment	Heat stress/stroke due to hot working environment.	Near miss/ unsafe act/ unsafe condition.	Use proper ventilation system; Workers to take a short break.	3	1	**3**	Additional control shall be proposed when necessary.
	Body injuries due to struck by object / material debris.	Fatality or permanent disability or irreversible illness	Wear proper PPE.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Physical stress/repetitive work.	Near miss/ unsafe act/ unsafe condition.	Workers to take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary.
Working with manual handling	Physical stress due to vibration.	Near miss/ unsafe act/ unsafe condition.	Workers to take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary.
	Punching.	First aid cases/medical treatment (M.C between 1 to 3 days)	Training on proper handling; Wear proper PPE.	2	2	**4**	Additional control shall be proposed when necessary.
	Repetitive work.	Near miss/ unsafe act/ unsafe condition.	Working in interval time limit.	3	1	**3**	Additional control shall be proposed when necessary.
	Rotating, Shearing.	Minor injury/illness (M.C between 5 to 14 days)	Machine guarding; Training on proper handling.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Body injuries/cut caused by sharp object.	Major injury/illness (Long absenteeism, M.C > 14 days);	Worker wear proper PPE.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Heat due to oxy cutting activities.	Near miss/ unsafe act/ unsafe condition.	Wear proper and safe attire.	3	1	**3**	Additional control shall be proposed when necessary.
	Electrocuted due to faulty tools wiring.	Fatality or permanent disability or irreversible illness	To check tool equipment free from defect; Wear proper PPE.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Body injuries due to heat/radiation.	Near miss/ unsafe act/ unsafe condition.	Workers wear proper PPE.	2	1	**2**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

	Inhalation of fume or chemical vapor.	Near miss/ unsafe act/ unsafe condition.	Worker wear proper PPE.	2	1	**2**	Additional control shall be proposed when necessary.
Working with machinery	Hit by moving object.	Fatality or permanent disability or irreversible illness	Provide signalman and barricade working area.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Damage to equipment/machinery due to mishandling.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000).	Trained operator and close supervision; Provide safe working procedure.	2	2	**4**	Additional control shall be proposed when necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By : GMPL TEAM	Checked By :- GMPLTEAM	Approved By : GMPL TEAM
CONCRETEING WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Mobilization of machinery	Traffic Collision	Major injury/illness (Long absenteeism, M.C > 14 days)	Provide experience driver with legal driving licence.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Machinery collapse due to unstable ground	Major injury/illness (Long absenteeism, M.C > 14 days)	Use steel plate/solid material as a temporary platform.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Space constrain.	Near miss/ unsafe act/ unsafe condition	Engineer to plan site layout.	3	1	**3**	Additional control shall be proposed when necessary.
Machinery movement within work area	Traffic collision.	Major injury/illness (Long absenteeism, M.C > 14 days)	Provide trafficman.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Space constrain.	Near miss/ unsafe act/ unsafe condition	Engineer to plan site layout.	3	1	**3**	Additional control shall be proposed when necessary.
Unloading of ready mix concrete	Hit by moving object.	Fatality or permanent disability or irreversible illness	Workers wearing proper PPE; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Hit by falling object.	Fatality or permanent disability or irreversible illness	Operator to check bucket condition; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Hit by falling object due to broken cable crane.	Fatality or permanent disability or irreversible illness	Crane with PMA certificate; Signal man properly monitor.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Heat stroke from prolonged exposure to sunlight and dehydration.	Near miss/ unsafe act/ unsafe condition	Worker wear hard hat and safety glove; Worker encouraged to take short break; Break if more than 2 hours.	3	1	**3**	Additional control shall be proposed when necessary.
	Crane boom failure due to overloading or mishandling.	Fatality or permanent disability or irreversible illness	Crane with PMA certificate; Signal man properly monitor.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
In-situ concrete mixing (Manually)	Physical injuries caused by sharp object or hand tools.	Minorinjury/illness (M.C between 5 to 14 days)	Workers wear gloves and safety shoes.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Manual handling due to improper lifting techniques.	Minorinjury/illness (M.C between 5 to 14 days)	Use proper hand tool, Proper handling techniques.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Working with cement and mineral dust.	Near miss/ unsafe act/ unsafe condition	Workers wear proper PPE.	3	1	**3**	Additional control shall be proposed when necessary.
	Dermatitis/skin irritation.	Near miss/ unsafe act/ unsafe condition	Workers wear gloves and safety shoes.	3	1	**3**	Additional control shall be proposed when necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
EXCAVATION WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	**Hazard**	**Hazard Character**	**Current Risk Control**	**Probability**	**Severity**	**Risk**	
Mobilization/ Unloading of excavator	Physical injuries caused by weight, sharp edges, hit by moving object.	Fatality or permanent disability or irreversible illness	Workers wear proper PPE; Signal man to monitor; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Insects bites or allergy to plants.	Near miss/ unsafe act/ unsafe condition	To ensure that worker wear heavy duty gloves during work.	3	1	**3**	Additional control shall be proposed when necessary.
	Trip or fall during mount or dismount of machinery.	Minor injury/illness (M.C between 5 to 14 days)	Worker wear proper PPE; Closed supervision.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Sudden injuries caused by excessive or cumulative lifting and/or work-rest cycle.	Near miss/ unsafe act/ unsafe condition	To ensure that worker do not work more than 2 hours at each time.	3	1	**3**	Additional control shall be proposed when necessary.
	Struck by overturning machinery due to unstable ground/traffic collision or machinery mishandling.	Fatality or permanent disability or irreversible illness	Instruction and site condition being briefed; Use solid platform; Signal man provided for traffic; Monitoring and provide signage.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Excavator and case prepare base for site office container, diesel tank and store	Heat stroke caused by prolong exposure to sunlight and lack of water.	Near miss/ unsafe act/ unsafe condition	Workers wear hat and take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary.
	Physical injuries caused by startup/mobilization such as belts, chain or weight of bucket wheel or hydraulic breaker during changeover between different types of accessories.	Minor injury/illness (M.C between 5 to 14 days)	To ensure that only competent person/operator performed mobilization for respective machinery.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Fire caused by heats engine or cigarette during refuel.	Localized damage (Repair cost > RM10,000 and < RM50,000)	To ensure that operator or worker not smoking during refueling and engine cool down of 15 minutes before refuel.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
EXCAVATION WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Excavate drainage/trenches/channel/site	Struck by collapse slope/falling object/material.	Fatality or permanent disability or irreversible illness	Close supervision; Working in buddy system; Barrier at excavate site area.	4	5	**20**	Briefing By SHO on safety awareness. Provide extra slope protection.
	Electrocution due to punching underground or overhead electric cable.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Worker or operator being briefed of site condition and hidden danger; Wear proper PPE; Closed supervision.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Monotony of work and work rest cycle for excavator operator; cumulative trauma of bending over in drainage trenches/channels during side shoring for workers.	Near miss/ unsafe act/ unsafe condition	To ensure that operator or worker not work continuously more than 4 hours and encourage short breaks where applicable.	2	1	**2**	Additional control shall be proposed when necessary.
	Punching by moving bucket due to improper manual handling.	Fatality or permanent disability or irreversible illness	Provide safe working practice; Warning signage; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Trip/fall/drop into trenches/drain/site during work or inspection.	Minor injury/illness (M.C between 5 to 14 days)	Set up barrier or warning markers; Close supervision.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
ROAD WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	**Hazard**	**Hazard Character**	**Current Risk Control**	**Probability**	**Severity**	**Risk**	
Unloading material	Physical injuries caused by weight, sharp edges, hit by falling object.	Fatality or permanent disability or irreversible illness	Workers wear gloves and hard hat; Provide safe working procedure; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Snakes & insects bites & allergies from plant might be occurred during the activities	First aid cases/medical treatment (M.C between 1 to 3 days)	All workers at the site are required to wear long safety boots.	2	2	**4**	Additional control shall be proposed when necessary.
	During verification of peg points, trip / fall might happen.	First aid cases/medical treatment (M.C between 1 to 3 days)	All workers at the site are required to wear long safety boots.	2	2	**4**	Additional control shall be proposed when necessary.
	Punching.	Major injury/illness (Long absenteeism, M.C > 14 days)	Stay away from the working area.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Physical injuries caused by swinging object and property damage.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Provide safe working procedure on proper lifting and material handling; Provide warning signage.	2	2	**4**	Additional control shall be proposed when necessary.
	Crane collapse due to unstable ground.	Fatality or permanent disability or irreversible illness	To check outrigger and ground condition; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Damage to road surface due to crane sitting.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Proper use of outrigger pad; Use of supporting platform.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Electrocution due to over head or underground live cable.	Minor injury/illness (M.C between 5 to 14 days)	Wear proper gloves; Provide warning signage; Close supervision.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Boom failure due to overloading or mishandling.	Fatality or permanent disability or irreversible illness	To check on load chart and proper lifting method.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Material falling onto public vehicle/road.	Localized damage (Repair cost > RM10,000 and < RM50,000)	Provide warning signage; Put barrier on working area; Close supervision.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Hit by falling object due to improper stacking.	Fatality or permanent disability or irreversible illness	Requirements on proper stacking techniques; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
ROAD WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Working environment and with material	Body injuries while handling machinery/hopper.	Major injury/illness (Long absenteeism, M.C > 14 days).	Provide safe working procedure; Training on machinery handling; Close supervision.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Health hazard due to tar and bitumen exposure.	Near miss/ unsafe act/ unsafe condition	Wear proper PPE; Close supervision.	3	1	**3**	Additional control shall be proposed when necessary.
	Heat stroke and dehydration due to prolonged exposure to sunlight or heating material.	Near miss/ unsafe act/ unsafe condition	Worker wear proper PPE; Worker to take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary.
	Heat injury to body due to inappropriate insulation hand tools or inappropriate hands tools.	First aid cases/medical treatment (M.C between 1 to 3 days)	To use proper insulated hand tool; Wear proper PEP.	2	2	**4**	Additional control shall be proposed when necessary.
	Burnt injury due to mishandling flammable liquid or other combustible materials.	Fatality or permanent disability or irreversible illness	Wear proper PPE; Provide warning signage/MSDS; Close supervision.	1	5	**5**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Struck or hit by moving object (Hand tool or machinery).	Fatality or permanent disability or irreversible illness	To check outrigger and ground condition; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Physical injuries caused by traffic collision with public vehicle.	Minor injury/illness (M.C between 5 to 14 days)	Road site barrier/warning signage; Signal man proper monitoring; Close supervision.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Fall hazard due to cable snap or mishandling during lifting works.	Minor injury/illness (M.C between 5 to 14 days)	To check wire rope and proper handling during lifting work.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Fall into loading tray.	Minor injury/illness (M.C between 5 to 14 days)	Training for workers; Close supervision.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Fall into paver grader with rotating equipment.	Near miss/ unsafe act/ unsafe condition	Training for workers; Close supervision.	1	5	**5**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
ROAD WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Working environment and with material.	Material falling onto public vehicle/live lane/roads.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Close supervision; Proper cover and close the road while unloading material.	2	2	**4**	Additional control shall be proposed when necessary.
	Communication interrupted by noisy condition.	Near miss/ unsafe act/ unsafe condition	Training to workers use proper hand signal where applicable.	3	1	**3**	Additional control shall be proposed when necessary.
	Traffic collision with public vehicle.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	To wear high visibility vest and clothing; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary.
	Material lifting interrupted by windy condition.	Near miss/ unsafe act/ unsafe condition	Training to workers proper lifting techniques and to provide sling man.	2	1	**2**	Additional control shall be proposed when necessary.
	Sudden injuries on hand due to vibration using jackhammer.	First aid cases/medical treatment (M.C between 1 to 3 days)	Provide safe working procedure; Training on hand tool handling.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
ROOF WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	**Hazard**	**Hazard Character**	**Current Risk Control**	**Probability**	**Severity**	**Risk**	
Mobilization/ Unloading of roof.	Physical injuries caused by weight/sharp edges.	Major injury/illness (Long absenteeism, M.C > 14 days)	Workers wear gloves and hard hat; Provide safe working procedure.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Physical injuries due to hit by falling material/object.	Fatality or permanent disability or irreversible illness	Workers wear proper PPE; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Manual handling.	First aid cases/medical treatment (M.C between 1 to 3 days)	Training and regular toolbox talk; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary.
	Hit by moving/falling object during transfer of material.	Fatality or permanent disability or irreversible illness	Provide signal man; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Damage of material due to mishandling and fall from height during lifting work.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Provide safe working/material handling procedure; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary.
Material storage at roof top.	Heat stress/stroke due to hot working environment	Near miss/ unsafe act/ unsafe condition	Use proper ventilation system; Take a short break and drink water.	3	1	**3**	Additional control shall be proposed when necessary.
	Falling/flying object material due to windy condition.	Fatality or permanent disability or irreversible illness	Material to be securely stack and away from edges.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Walkways and working platform.	Slip and fall from height.	Fatality or permanent disability or irreversible illness	Provide safe working procedure; Wear safety harness and provides lifeline.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Space constraint.	Near miss/ unsafe act/ unsafe condition	Training and proper planning of work.	3	1	**3**	Additional control shall be proposed when necessary.
Installation of roof material	Slip & fall from height	Fatality or permanent disability or irreversible illness	Provide safe working procedure; Wear safety harness & provide lifelines.	3	5	**15**	Permit to work, qualification/competency, briefing by SHO on safety awareness
	Material damage due to falling/hit by falling object	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Provide safe material handling & toe board at edge of roof; Cordon working area; Warning signage.	2	2	**4**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
SCAFFOLDING WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Mobilization/ Unloading	Physical injuries caused by weight, sharp edges, hit by moving object.	Fatality or permanent disability or irreversible illness	Workers wearing proper PPE; Provide warning signage; Safe handling/working procedure.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Heat stress/stroke due to hot working environment.	Near miss/ unsafe act/ unsafe condition	Workers wearing hard hat; To take a short break and drink water.	3	1	**3**	Additional control shall be proposed when necessary.
	Physical injuries due to slip/trip fall during carry scaffold for storage.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers wearing proper PPE; Provide safe material handling/working procedure; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary.
	Space constraint.	Near miss/ unsafe act/ unsafe condition	Training and proper planning of work; Safe work procedure.	3	1	**3**	Additional control shall be proposed when necessary.
	Physical injuries caused by fall of material during lifting process.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers wearing proper PPE; Close supervision; Provide safe material handling/working procedure.	2	2	**4**	Additional control shall be proposed when necessary.
	Sudden injuries caused by excessive lifting.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers wearing proper PPE; Provide warning signage; Safe handling/working procedure.	2	2	**4**	Additional control shall be proposed when necessary.
	Hand injuries when stacking the scaffold from lorry.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers wearing proper PPE; Provide safe working procedure.	2	2	**4**	Additional control shall be proposed when necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
SCAFFOLDING WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Installation of scaffold	Hit by moving object.	Fatality or permanent disability or irreversible illness	Wear proper PPE, Provide safe working procedure.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Platform collapse due to unstable ground.	Extensive damage > RM250,000	Provide safe working procedure, safe handling/working procedure, supervisor to check platform ground	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Hit by falling object.	Fatality or permanent disability or irreversible illness	Wearing hard hat, close supervision by competent scaffold supervisor.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Slip & trip while set up of installation at platform.	First aid cases/medical treatment (M.C between 1 to 3 days),	Wear proper PPE, platform to be clear & dry, close supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Fall from height.	Fatality or permanent disability or irreversible illness	Provide safe working procedure, wear safety harness & provide lifelines	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Erection of scaffold	Slip and trip during erection.	First aid cases/medical treatment (M.C between 1 to 3 days),	Using safe working platform; Passageway clear from obstruction; Workers wear proper PPE.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Material falling.	Minor injury/illness (M.C between 5 to 14 days)	Close supervision by competent scaffold supervisor; Provide warning signage at working area; Workers wear proper PPE.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Falling from height.	Fatality or permanent disability or irreversible illness	Close supervision; Using safe working platform; Worker wearing safety harness.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
DRAINAGE, SEWERAGE & PIPING WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Check and verify peg points as per survey drawings with reference to construct drawings	When checking peg points, possible injuries from snakes/insects bites and allergies from plants.	First aid cases/medical treatment (M.C between 1 to 3 days)	Worker to work in buddy system and compulsory use of safety shoes or proper PPE.	2	2	**4**	Additional control shall be proposed when necessary
	Trip/fall during verification of peg point.	First aid cases/medical treatment (M.C between 1 to 3 days)	Worker to work in buddy system and use of belay lines for transversing slopes if applicable; Workers to rotate carrying equipment and position.	2	2	**4**	Additional control shall be proposed when necessary
	Cumulative trauma from carrying peg variation equipment such as dumpy level, theodolite and stands inclusive of measurement staff.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers to rotate carrying equipment and position.	1	2	**2**	Additional control shall be proposed when necessary
Mobilize excavator or case	Trip/fall during mount/dismount of machinery, noise and vibration of machinery gives physical discomforts.	First aid cases/medical treatment (M.C between 1 to 3 days)	To ensure that operator to perform pre start check and clean up of slippery surfaces before mount/dismount.	2	2	**4**	Additional control shall be proposed when necessary
	Fire caused by heated engine or cigarette during refueling.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Enforce no smoking area and cool down engine before refueling.	2	2	**4**	Additional control shall be proposed when necessary
	Drop of machinery parts and hit the body of worker, noise and vibration of machinery might cause injury.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers to wear proper PPE; Provide safe working procedure; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
DRAINAGE, SEWERAGE & PIPING WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Unloading pipes from trailers	The crane's chain slipped or broken during the lifting operation and piles fall off and hit the body of worker causing body parts dislocated/fracture.	Major injury/illness (Long absenteeism, M.C > 14 days)	Workers to wear proper PPE; Provide signalman; Crane to have a valid PMA certificate; Provide safe work procedure.	1	4	**4**	Additional control shall be proposed when necessary
	Hand injuries might be occurred when the workers help to unload the pipes.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers to wear proper PPE; Provide safe work procedure.	2	2	**4**	Additional control shall be proposed when necessary
	Sudden body injuries due to excessive load weight.	First aid cases/medical treatment (M.C between 1 to 3 days)	Provide training/safety awareness; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Physical injuries caused by weight, sharp edges.	Minor injury/illness (M.C between 5 to 14 days)	Workers wear proper PPE.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Hit by moving object.	Fatality or permanent disability or irreversible illness	Provide warning signage; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Stacking of pipes	Improper stacking of pipes might cause others to fall off and cause body injuries.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers wear proper PPE.	2	2	**4**	Additional control shall be proposed when necessary
	Hand injuries due to stacking the pipes on form ground with timber blocks and wedges.	First aid cases/medical treatment (M.C between 1 to 3 days)	Workers wear proper PPE.	2	2	**4**	Additional control shall be proposed when necessary
	Snakes and insects bites and allergies from plant might be occurred during the activities.	Near miss/ unsafe act/ unsafe condition	Workers wear proper PPE.	2	1	**2**	Additional control shall be proposed when necessary

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
DRAINAGE, SEWERAGE & PIPING WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Excavate drainage/ channels and preparing foundation	Trip/fall during mount/dismount of machinery, noise and vibration of machinery gives physical discomforts.	First aid cases/medical treatment (M.C between 1 to 3 days),	To ensure that operator to perform pre start checks and clean up of slippery surfaces before mount/dismount.	2	2	**4**	Additional control shall be proposed when necessary
	Monotony of work and work cycle for excavator operator; cumulative trauma of bending over in drainage trenches/channel during side shoring.	First aid cases/medical treatment (M.C between 1 to 3 days),	To ensure worker take a short break where applicable.	2	2	**4**	Additional control shall be proposed when necessary
	Buried alive by collapse ground or material.	Fatality or permanent disability or irreversible illness	Adequate slope protection; Safe excavation technique; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Trip/fall/drop into trenches during work or inspection.	First aid cases/medical treatment (M.C between 1 to 3 days),	Trenches have barricade or warning signage; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Struck by collapse machinery.	Fatality or permanent disability or irreversible illness	Provide solid platform/use steel plate; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Heat stroke from prolonged exposure to sunlight and dehydration.	Near miss/ unsafe act/ unsafe condition	Workers wear hard hat; Workers encourage to take a short where applicable.	3	1	**3**	Additional control shall be proposed when necessary
Placing of culverts/lay bedding concrete/pipes or related materials	Snakes and insects bites and allergies from plant might be occurred during the activities.	Near miss/ unsafe act/ unsafe condition	Workers wear proper PPE	2	1	**2**	Additional control shall be proposed when necessary
	Powered equipment and machinery such as hopper or manual compactor may cause possible injuries.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear proper PPE	2	2	**4**	Additional control shall be proposed when necessary

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
DRAINAGE, SEWERAGE & PIPING WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Placing of culverts/lay bedding concrete/pipes or related materials (Cont'd)	Physical injuries caused by weight, sharp edges.	Minor injury/illness (M.C between 5 to 14 days)	Workers wear proper PPE.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Hit by moving object.	Fatality or permanent disability or irreversible illness	Provide warning signage; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Fire caused by heated engine or cigarette during refueling.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Enforce no smoking area and cool down engine before refueling.	2	2	**4**	Additional control shall be proposed when necessary
	Buried alive by collapse ground or material.	Fatality or permanent disability or irreversible illness	Adequate slope protection; Safe excavation technique; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Physical injuries caused by heavy items slipping from hands/lifting equipment and falling onto worker.	Minor injury/illness (M.C between 5 to 14 days)	Workers wear proper PPE; Signalman to be provided to stop other from working under the crane.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Sudden body injuries due to excessive lifting.	First aid cases/medical treatment (M.C between 1 to 3 days),	Allowed to carry only where one's can; Required assistant when needed; Use crane or lifting machinery.	2	2	**4**	Additional control shall be proposed when necessary
	Electrocuted by faulty wiring.	Fatality or permanent disability or irreversible illness	Workers wear proper PPE; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Struck by collapse machinery due to unstable ground.	Fatality or permanent disability or irreversible illness	Use of solid supporting platform; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Radiation.	Major injury/illness (Long absenteeism, M.C > 14 days)	Worker wearing proper eye protection.	1	4	**4**	Additional control shall be proposed when necessary
	Heat stroke from prolonged exposure to sunlight and dehydration.	Near miss/ unsafe act/ unsafe condition	Workers wear hard hat; Workers encourage to take a short where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Trip/fall/drop into trenches during work or inspection.	First aid cases/medical treatment (M.C between 1 to 3 days),	Trenches have barricade or warning signage; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Dermatitis due to prolonged direct contact with cement.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear proper PPE.	2	2	**4**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
DRAINAGE, SEWERAGE & PIPING WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Install applicable components according to specifications	Physical injuries caused by weight, sharp edges when transferring material and equipment.	Minor injury/illness (M.C between 5 to 14 days)	Workers wear proper PPE; Workers to work in buddy system.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Snakes and insects bites and allergies from plant might be occurred during the activities.	Near miss/ unsafe act/ unsafe condition	Workers wear proper PPE.	2	1	**2**	Additional control shall be proposed when necessary
	Possible injuries from fall and or equipment/ components falling onto workers when work at night.	Minor injury/illness (M.C between 5 to 14 days)	Workers wear proper PPE; Provide proper lighting.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Heat stroke from prolonged exposure to sunlight and dehydration.	Near miss/ unsafe act/ unsafe condition	Workers wear hard hat; Workers encourage to take a short where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Physical injuries caused by heavy items slipping from hands/lifting equipment and falling on to worker.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear proper PPE; Signalman to be provided to stop other from working under the crane.	2	2	**4**	Additional control shall be proposed when necessary
Conduct applicable acceptance test or benchmark acceptance procedure	Heat stroke from prolonged exposure to sunlight and dehydration.	Near miss/ unsafe act/ unsafe condition	Workers wear hard hat; Workers encourage to take a short where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Physical injuries caused by weight, sharp edges when transferring test equipment.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear proper PPE; Workers to work in buddy system.	2	2	**4**	Additional control shall be proposed when necessary
	Possible injuries from fall and or hit by falling equipment.	Minor injury/illness (M.C between 5 to 14 days)	Ensure trenches have boundaries and warning markers.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
DRAINAGE, SEWERAGE & PIPING WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Backfill for applicable closed drainage system to desired level	Excessive vibration of compactor/hopper and heat radiation from closed proximity of equipment.	Near miss/ unsafe act/ unsafe condition	To ensure workers not working more than 4 hours continuously and encourage to take a short break.	3	1	**3**	Additional control shall be proposed when necessary
	Monotony of work and work rest cycle for excavator operator; cumulative.	Near miss/ unsafe act/ unsafe condition	To ensure workers not working more than 4 hours continuously and encourage to take a short break.	3	1	**3**	Additional control shall be proposed when necessary
	Heat stroke from prolonged exposure to sunlight and dehydration.	Near miss/ unsafe act/ unsafe condition	Workers wear hard hat; Workers encourage to take a short where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Trip/fall/drop into trenches during work or inspection.	First aid cases/medical treatment (M.C between 1 to 3 days),	Trenches have barricade or warning signage; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary
Post-work safety	Fire caused by heated engine or cigarette during refueling.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Enforce no smoking area and cool down engine before refueling.	2	2	**4**	Additional control shall be proposed when necessary
	Fall from height due to unprotected opening.	Fatality or permanent disability or irreversible illness	Provide warning system; Provide barrier.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Inhalation/exposure to toxic gases.	Fatality or permanent disability or irreversible illness	Working in buddy system; Close supervision; Check for toxic gases.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Confine space and insufficient oxygen.	Fatality or permanent disability or irreversible illness	Provide proper ventilation; Working in buddy system; Exhaust fan system.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
CONFINED WORK SPACE	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Entering confined space	Physical injuries due to slip and fall into manhole.	Major injury/illness (Long absenteeism, M.C > 14 days).	Workers wear proper PPE; Use safety harnesses if required; Closedsupervision.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Toxication due to inhalation of toxic gases.	Fatality or permanent disability or irreversible illness	Competent gas tester checks the air;Provide proper ventilation; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Electrocuted due to faulty wiring or electric leakage.	Fatality or permanent disability or irreversible illness	Workers wear proper PPE; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Body cut/pierce by sharp object.	Major injury/illness (Long absenteeism, M.C > 14 days).	Workers wear proper PPE; Closed supervision.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Mobilize material or equipment into confined space	Hand injuries might be occurred when the workers to unload material/ equipment.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers to wear proper PPE; Provide safe work procedure.	2	2	**4**	Additional control shall be proposed when necessary
	Hit by moving object.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide warning signage; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Sudden body injuries due to excessive load weight.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide training/safety awareness; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
Working in confined space	Physical injuries or death caused by hazardous atmosphere: asphyxiate, toxic gases, explosion.	Fatality or permanent disability or irreversible illness	Workers to wear proper PPE; Provide proper ventilation system; Work in buddy system; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Sudden injuries due to prolonged bending over .	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear proper PPE; Workers to take break where applicable.	2	2	**4**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
CONFINED WORK SPACE (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Working in confined space (Cont'd)	Heat stroke due to excessive heat and dehydration.	Near miss/ unsafe act/ unsafe condition	Workers to take a short break where applicable and drink more water; Provide proper ventilation system; Closed supervision.	3	1	**3**	Additional control shall be proposed when necessary
	Buried alive due to slope collapse/earth/solid material/fluid.	Fatality or permanent disability or irreversible illness	Workers to wear proper PPE; Provide lifeline communication system and work in buddy system; Closed supervision; Provide adequate slope protection.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Death due to inhalation of carbon monoxide.	Fatality or permanent disability or irreversible illness	Any machinery to be place outside; Provide proper ventilation system; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Inspection/ finished up and exit from confined space	Trip/fall/drop into manhole during inspection.	Fatality or permanent disability or irreversible illness	Provide warning signage; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Buried by collapse ground or material.	Fatality or permanent disability or irreversible illness	Adequate slope protection; Safe excavation technique; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Electrocuted by faulty wiring.	Fatality or permanent disability or irreversible illness	Workers wear proper PPE; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Space constraint.	First aid cases/medical treatment (M.C between 1 to 3 days),	Training and proper planning of work; Provide safe working procedure.	2	2	**4**	Additional control shall be proposed when necessary
	Hit by moving object.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wearing proper PPE; Provide safe working procedure.	2	2	**4**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
WELDING WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Mobilization/ unloading of welding equipment	Physical injuries caused by weight, sharp edges.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear proper PPE.	2	2	**4**	Additional control shall be proposed when necessary
	Physical injuries caused by falling cylinder.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear safety shoes; Provide safe handling procedure.	2	2	**4**	Additional control shall be proposed when necessary
	Environment pollution caused leaking gases.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide safe storage procedure; Provide maintenance schedule; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Sudden injuries caused by excessive lifting and mishandling.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide safe handling/lifting procedure; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
Welding process	Eyes injury caused by excessive flash light.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wearing face shield/goggle; Provide only competent welder.	2	2	**4**	Additional control shall be proposed when necessary
	Gas inhalation/welding fume.	First aid cases/medical treatment (M.C between 1 to 3 days),	Wearing face mask and face shield; Provide safe working procedure; Provide proper ventilation/exhaust fan.	2	2	**4**	Additional control shall be proposed when necessary
	Explosion due to leaking cylinder/valve/hose.	Fatality or permanent disability or irreversible illness	Worker wear proper PPE; Provide safe working procedure; Provide warning signage; Proper maintenance schedule; Closed supervision.	1	5	**5**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Body injuries due to burnt/hot surface.	Major injury/illness (Long absenteeism, M.C > 14 days).	Worker wear proper PPE; Provide safe working procedure.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
WELDING WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Welding process (Cont'd)	Fire caused by improper welding procedure.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Worker wears proper PPE; Provide safe working procedure; Provide fire extinguisher; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Physical injuries caused by sharp objects.	First aid cases/medical treatment (M.C between 1 to 3 days),	Worker wear proper PPE; safe material handling.	2	2	**4**	Additional control shall be proposed when necessary
	Falling from height due to unstable platform.	Fatality or permanent disability or irreversible illness	Worker wearing safety harness; Provide safe working procedure; Provide safe working platform.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Inspect and storage of wielding set	Manual handling.	First aid cases/medical treatment (M.C between 1 to 3 days),	Training and regular toolbox talk; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Material damage due to falling/mishandling during storage.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Provide safe handling procedure; Provide a specific storage room.	2	2	**4**	Additional control shall be proposed when necessary
	Hand injury due to hot surface/platform.	First aid cases/medical treatment (M.C between 1 to 3 days),	Worker wear proper PPE; To ensure/wait till hot surface is cold.	2	2	**4**	Additional control shall be proposed when necessary
	Hit by moving object during transfer of equipment.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide safe working procedure; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
MASONRY WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Transporting of material	Traffic collision.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Competent and certified driver; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Machinery breakdown.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Regular maintenance and servicing.	2	2	**4**	Additional control shall be proposed when necessary
	Material overloading, falling and hit workers.	Minor injury/illness (M.C between 5 to 14 days)	Workers wear proper PPE; Closed supervision.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
Unloading of material	Physical injuries due to hit by moving objects.	Fatality or permanent disability or irreversible illness	Workers wear proper PPE; Provide safe working procedure.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Physical injuries due to hit by falling objects.	Fatality or permanent disability or irreversible illness	Workers wear proper PPE; Provide safe working procedure.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Crane collapse due to unstable ground/platform or mishandling.	Fatality or permanent disability or irreversible illness	Provide a proper PMA certificate; Fully use outrigger platform.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Trip and fall due to poor housekeeping.	Major injury/illness (Long absenteeism, M.C > 14 days).	Provide good/save access and maintain good hours keeping.	2	4	**8**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Manual handling due to improper lifting techniques.	Minor injury/illness (M.C between 5 to 14 days)	Use proper hand tools; Workers wear proper PPE.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Physical injuries due to cut/pierce by sharp edge object.	Minor injury/illness (M.C between 5 to 14 days)	Workers wear proper PPE; Provide safe working procedure.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
MASONRY WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Storage of material	Hit by falling object due to improper stacking.	First aid cases/medical treatment (M.C between 1 to 3 days),	Requirements proper stacking techniques.	2	2	**4**	Additional control shall be proposed when necessary
	Fall hazard due to mishandling during stacking.	First aid cases/medical treatment (M.C between 1 to 3 days),	To check safe condition of platform; Wear a proper PPE; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Sudden body injuries due to excessive lifting is carried out.	First aid cases/medical treatment (M.C between 1 to 3 days),	Allowed to carry only where one's can; Required assistant when needed; Use crane or lifting machinery.	2	2	**4**	Additional control shall be proposed when necessary
	Manual handling.	Near miss/ unsafe act/ unsafe condition	Training and regular toolbox talk; Closed supervision.	3	1	**3**	Additional control shall be proposed when necessary
Working environment	Material fall onto public vehicle/live lane/road.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	To properly cover the material/stacked it away from the edge.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Heat stroke from prolonged exposure to sunlight and dehydration.	Near miss/ unsafe act/ unsafe condition	Workers wear hard hat; Workers encourage to take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Trip and fall due to poor housekeeping.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide good/save access and maintain good house keeping.	2	2	**4**	Additional control shall be proposed when necessary
	Dusty work environment.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers to wear proper PPE (i.e Face mask); Conduct housekeeping regularly.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Falling from height.	Fatality or permanent disability or irreversible illness	To provide barrier at open space edge; Workers to wear safety harness; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Body injuries/cut caused by sharp object.	Minor injury/illness (M.C between 5 to 14 days)	Worker wears proper PPE.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
MASONRY WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Working with material	Hit by falling object due to mishandling/slip/fall.	Fatality or permanent disability or irreversible illness	Provide safe working procedure; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Dermatitis due to exposure to cement/mineral dust.	First aid cases/medical treatment (M.C between 1 to 3 days),	Worker wear gloves/face mask; Conduct housekeeping regularly.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Damage to equipment/material due to mishandling.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Train worker for properly handling; Provide safe working procedure.	2	2	**4**	Additional control shall be proposed when necessary
	Fall from height due to unstable/collapse platform.	Fatality or permanent disability or irreversible illness	Provide safe working platform; To provide barrier at open space edge; Workers to wear safety harness; Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Physical stress/repetitive work.	Near miss/ unsafe act/ unsafe condition	Worker to take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Environment pollution due to concrete and mineral dust.	Near miss/ unsafe act/ unsafe condition	Worker wear gloves/face mask; Conduct housekeeping regularly; Provide water spray system.	3	1	**3**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
LIFTING WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Transporting of lifting machinery	Traffic collision.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Provide experience driver with legal driving licensee; Provide traffic man.	2	2	**4**	Additional control shall be proposed when necessary
	Machinery breakdown.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Regular maintenance and servicing.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Equipment/machinery falling onto public vehicle/road.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	To securely tighten up equipment/machinery before transporting; Provide warning signage.	2	2	**4**	Additional control shall be proposed when necessary
	Body injuries while handling or secure equipment/ machinery for transporting.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide safe working procedure; Training on machinery handling; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary
Mobilization/ unloading machinery/ material	Physical injuries caused by fall/hit by moving object during lifting process.	Fatality or permanent disability or irreversible illness	Worker wear gloves and hard hat; Signalman monitored lifting process; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Crane cable slipped or break during the lifting process.	Fatality or permanent disability or irreversible illness	Provide a proper PMA certificate; Signalman monitored lifting process; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Damage to road surface due to crane sitting.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Proper use of outrigger pad; Use of support platform.	3	2	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Struck by moving object due to unstable ground or mishandling.	Fatality or permanent disability or irreversible illness	Provide safe working procedure; Signalman monitored lifting process; Provide barrier and signage, Closed supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
LIFTING WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Working environment	Heat stroke from prolonged exposure to sunlight and dehydration.	Near miss/ unsafe act/ unsafe condition	Workers wear hard hat; Workers encourage taking a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Sudden body injuries due to excessive lifting.	Near miss/ unsafe act/ unsafe condition	Allowed to carry only where one's can; Required assistant when needed; Use crane or lifting machinery.	3	1	**3**	Additional control shall be proposed when necessary
	Physical injuries caused by trip and fall during lifting and carrying material.	Minor injury/illness (M.C between 5 to 14 days)	Safe working procedure; Closed supervision.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Space constraint.	Near miss/ unsafe act/ unsafe condition	Training and proper planning of work; Safe working procedure.	3	1	**3**	Additional control shall be proposed when necessary
Working with lifting/hoisting machinery.	Crane boom failure/collapse due to overloading.	Fatality or permanent disability or irreversible illness	Provide a proper PMA certificate; Signalman monitored lifting process; Close supervision; Provide barrier and signage.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Crane topple due to overweight/unstable ground.	Fatality or permanent disability or irreversible illness	Crane park at solid platform and outrigger support is fully used; Close supervision.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Manual handling.	First aid cases/medical treatment (M.C between 1 to 3 days),	Training and regular toolbox talk; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Material damage due to falling/mishandling during storage.	Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000)	Provide safe handling procedure; Provide specific storage room.	2	3	**6**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
HANDTOOL WORK	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Working environment	Space constraint.	First aid cases/medical treatment (M.C between 1 to 3 days),	Training and proper planning of work; Safe working procedure.	2	2	**4**	Additional control shall be proposed when necessary
	Physical injuries caused by swinging object and property damage.	First aid cases/medical treatment (M.C between 1 to 3 days), Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000).	Provide safe working procedure; Provide warning signage; Work in safe condition and space; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
Working with hand tool	Physical injuries caused by weight/sharp object.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear gloves; Provide safe working procedure.	2	2	**4**	Additional control shall be proposed when necessary
	Electrocution due to faulty wiring.	Fatality or permanent disability or irreversible illness	Worker wear proper PPE, make sure all equipment free from defect.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.
	Injuries or damage due to excessive vibration (Jackhammer/hopper).	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide training how to use hand tool; Provide safe workingprocedure; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Eyes injury caused by flying object/debris of hand tools.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide safe working procedure; Workers wearing face shield / goggle; Provide only competent worker.	2	2	**4**	Additional control shall be proposed when necessary
	Physical stress/repetitive work.	Near miss/ unsafe act/ unsafe condition	Worker to take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Injuries or damage due to mishandling or use of tools.	First aid cases/medical treatment (M.C between 1 to 3 days),	Conduct training; Provide safe working procedure; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Electrical hand toolbreakdown	Near miss/ unsafe act/ unsafe condition	Regular maintenance and servicing; Provide safe working procedure.	3	1	**3**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
HANDTOOL WORK (Cont'd)	CONSTRUCTION			

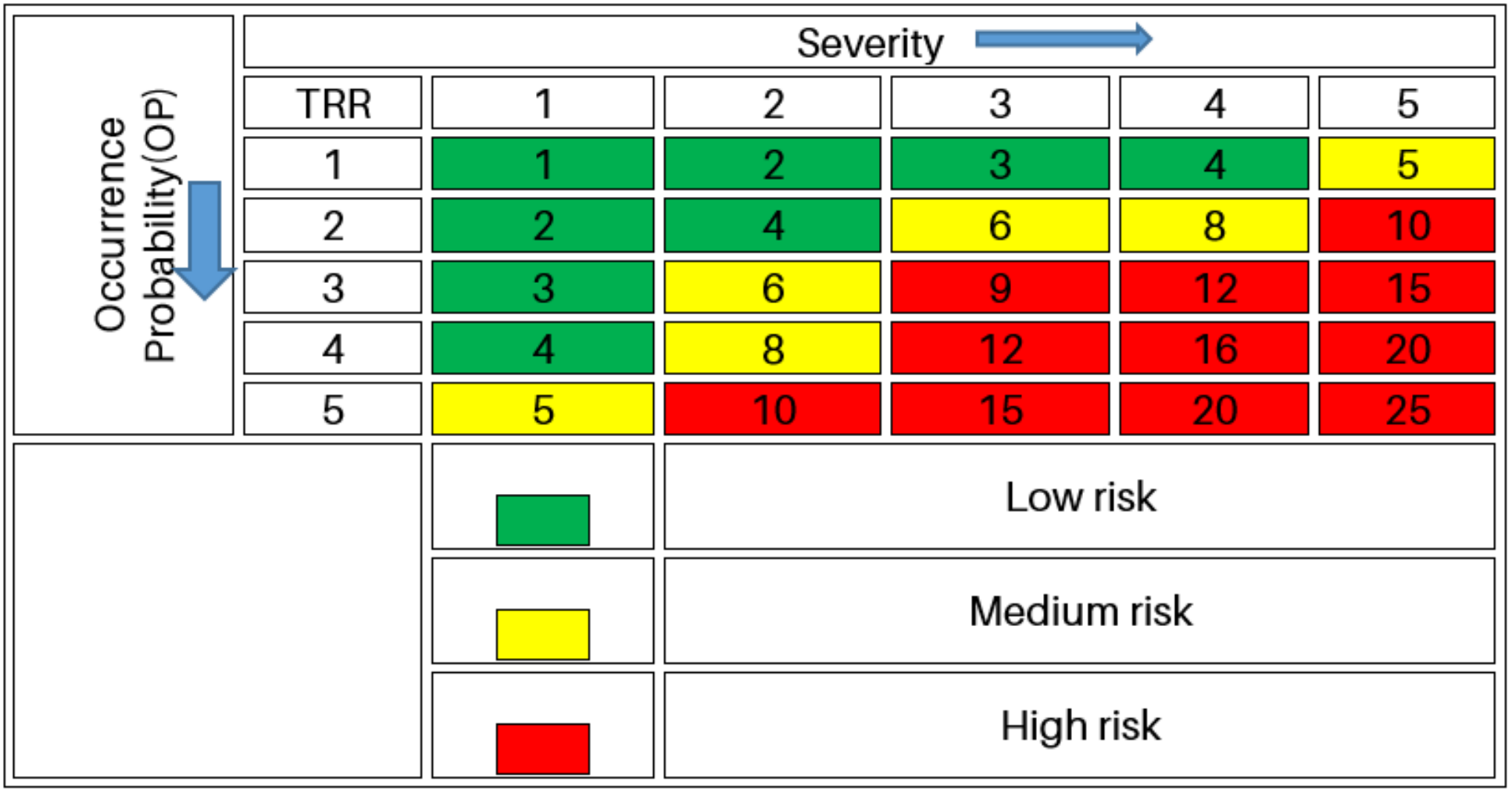
HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Storage of hand tool	Physical injuries caused by weight/sharp objects.	First aid cases/medical treatment (M.C between 1 to 3 days),	Workers wear gloves; Provide safe working procedure.	2	2	**4**	Additional control shall be proposed when necessary
	Possible injuries from fall and or hit by falling hand tool.	First aid cases/medical treatment (M.C between 1 to 3 days),	Worker wear Proper PPE (i.e. Safety shoes).	2	2	**4**	Additional control shall be proposed when necessary
Working/office environment	Sudden injuries caused by excessive lifting and mishandling of files, table, boxes and files cabinet.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide safe handling/lifting procedure; Close supervision.	2	2	**4**	Additional control shall be proposed when necessary
	When dealing with people with unsound/unstable mind and being attack, verbally or physically abuse.	First aid cases/medical treatment (M.C between 1 to 3 days),	Inculculate team spirit in the office; Create a friendly office environment; Provide two way communication; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Physical injuries and property damage caused by fire at company's floor or other floors.	First aid cases/medical treatment (M.C between 1 to 3 days), Minor damage (No or less disruption, repair cost > RM1,000 and < RM10,000).	Provide overload tripping device at main breaker and main switch; Provide fire extinguisher; Conduct ERP and fire drill training; Closed supervision.	2	2	**4**	Additional control shall be proposed when necessary
	Fall sick/fever/flu due to unstable room temperature.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide sweater; Air conditioning temperature to be set comfortably.	2	2	**4**	Additional control shall be proposed when necessary
	Vomiting and diarrhea due to food or water poisoning in the office.	First aid cases/medical treatment (M.C between 1 to 3 days),	Provide boiling water to all employees or visitor; To ensure cleanliness of pantry.	2	2	**4**	Additional control shall be proposed when necessary

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL

Name of Job :	Department :	Prepared By :	Checked By :-	Approved By :
HANDTOOL WORK (Cont'd)	CONSTRUCTION			

HAZARD IDENTIFICATION				RISK ASSESSMENT			Recommended Action/Additional Control
Job Activity	Hazard	Hazard Character	Current Risk Control	Probability	Severity	Risk	
Working/office environment (Cont'd)	Body injuries due to sitting for a very long period.	Near miss/ unsafe act/ unsafe condition	To ensure worker take a short break where applicable.	3	1	**3**	Additional control shall be proposed when necessary
	Allergic reactions or infections due to air contamination caused by rotten waste, fungi, bacteria and cigarette smoke.	Near miss/ unsafe act/ unsafe condition	Instruct building management to clean the air filter regularly; Impose NO SMOKING in the office.	2	1	**2**	Additional control shall be proposed when necessary
	Eyes injuries due to working in front of/looking at the computer for a very long period.	Near miss/ unsafe act/ unsafe condition	To ensure worker take a short break where applicable.	2	1	**2**	Additional control shall be proposed when necessary
	Electrocution due to short circuit or power leakage.	Fatality or permanent disability or irreversible illness	Provide overload tripping device at main breaker and main switch; Use SIRIM proven electrical appliances; Use only highly insulated electrical appliances.	2	5	**10**	Briefing By SHO on safety awareness. Additional control shall be made if necessary.

HAZARD IDENTIFICATION, RISK ASSESSMENT & DETERMINING CONTROL



GIRIDHAN METAL PRIVATE LIMITED

Registered Office "PREMLATA" 39, Shakespeare Sarani, 3rd Floor, Kolkata - 700 017, West Bengal, India
Telefax : +91 33 2289 2734 / 35 / 36. E-mail : giridhanmetal@gmail.com. CIN : U27320WB2019PTC234675

Ref No. GMPL/22-23/SPCB/08 Date: 22.09.2022

To,
Environmental Engineer
West Bengal Pollution Control Board
(Department of Environment, Govt. of West Bengal)
Asansol Regional Office, Kalyanpur Satellite Township Project (K.S.T.P.)
Dr. B. C. Roy Road, P.O.-Dhadka, Asansol - 713302

Sub: Environmental Statement for the Period 2021-22 for Giridhan Metal Private Limited

Dear Sir,
We are hereby submitting the **'Environmental Statement' (Form-V)** for the year of 2021-22 for Giridhan Metal Private Limited, Jamuria Industrial Estate, Nandi, Jamuria, Paschim Bardhaman for your kind consideration. We have filed the same in online also at your designated website

Thanking You.

Yours Sincerely

Sanjay Agarwal
Director

GIRIDHAN METAL PVT. LTD. NANDI

Copy to:
1. The Member Secretary, WBPCB, Paribesh Bhawan, Salt Lake, Kolkata-700098
2. The IGF & Incharge, GOI, MoEF&CC, Integrated Regional Office, Kolkata, 1B-198, Salt Lake City, Setor-III, Kolkata-700106

भारतीय डाक
India Post

EW038867223IN IVR:6987038867223
SP JAMURIAHAT SO <713336>
Counter No:1,26/09/2022,10:45
To:THE IGF &INCHARGE,GOI MOEF &CC
PIN:700106, Bidhan Nagar IB Market SO
From:GIRIDHAR ME,JAMURIA INUSTRIA
Wt:30gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>
<Dial 18002666868> <Wear Masks, Stay Safe>

भारतीय डाक
India Post

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From:GIRIDHAR ME,JAMURIA INUSTRIA
Wt:30gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>
<Dial 18002666868> <Wear Masks, Stay Safe>

भारतीय डाक
India Post

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Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>

FORM-V

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2020-21

GIRIDHAN METAL PRIVATE LIMITED, JAMURIA

PART-A

Name and address of the owner/ occupier of the industry operation or process	Mr Sanjay Agarwal (Director) Giridhan Metal Private Limited Jamuria Industrial Estate P.O.-Nandi; P.S. - Jamuria Paschim Bardhaman – 713344 (W.B.)
Industry category Primary-(STC Code) Secondary-(STC Code)	Integrated Steel Plant ---
Production capacity	120000 TPA DRI, 30000 TPA Fe-Mn/Si-Mn with 16 MW CPP
Year of Establishment	2020 (Production starts from Aug 2021with 350 TPD DRI & 16 MW CPP)
Date of Last Environmental /Audit Report submitted	---

PART B

WATER AND RAW MATERIAL CONSUMPTION

1) Water consumption m^3/day

Process
Cooling } 120 m3
Domestic

Name of products	Process water consumption per unit of product output	
	During the current financial year 2020-21	During the current financial year 2021-22
Sponge Iron (m^3/MT)	NA	0.22
Silico Manganese (m^3/MT)	NA	0.44
Captive Power Plant ((m^3/MW)	NA	0.38

2) Raw material consumption

Sl No	Name of Raw Material	Name of the Products	Consumption of raw material	
			2020-21 (MT/Yr)	2021-22 (MT/Yr)
1	Iron Ore/Pellet	Sponge Iron	NA	86802
2	Coal	Sponge Iron	NA	77654
3	Dolomite	Sponge Iron	NA	2729
4	Manganese Ore	Si-Mn	NA	12061
5	Dolomite	Si-Mn	NA	2026
6	Coal	Si-Mn	NA	11732
7	Hard Coke	Si-Mn	NA	1674
8	Coal	CFBC	NA	7543
9	Dolochar	CFBC	NA	7847

PART-C
POLLUTION DISCHARGED TO ENVIRONMENT/ UNIT OF OUTPUT
(PARAMETERS AS SPECIFIED IN THE CONSENT ISSUED)

Sl No	Pollutants	Prescribed Standard (mg/l)	Quantity of Pollutants discharged (mass/day)		Concentration of Pollutants discharged (mass/volume)		Percentage of variation from prescribed standard with reasons
a)	Water		Kg/day		mg/lit		
			FY: 2020-21	FY: 2021-22	FY: 2020-21	FY: 2021-22	No deviation. Alls values are within the standard norms. No effluent discharge from the plant
	pH	5.5-9.5	NA	8.22	NA	8.22	
	Total Suspended Solids (TSS)	100	NA	0.36	NA	10	
	BOD	30	NA	0.12	NA	3.3	
	COD	250	NA	0.43	NA	12.0	
	Oil & Grease	10	NA	<0.63	NA	<1.4	
b)	AIR PM emission from Stack of	Prescribed Standard (mg/Nm³)	Kg/day		mg/Nm³		No deviation. Alls values are within the standard norms as pollution control equipments are maintained properly
			FY: 2020-21	FY: 2021-22	FY: 2020-21	FY: 2021-22	
	DRI – 1 (1x350TPD)	30	NA	119.67	NA	17.0	
	Product Handling (DRI -1 & 2 common)	30	NA	14.37	NA	4.6	
	CD & Surge Bin (DRI -1 & 2 common)	30	NA	4.6	NA	4.1	
	Ferro Alloys (9MVA x 2 nos)	30	NA	19.77	NA	6.0	

PART-D
HAZARDOUS WASTES
(AS SPECIFIED UNDER HAZARDOUS WASTES (MANAGEMENT, HANDLING AND TRANS BOUNDARY MOVEMENT RULES, 2008)

The industry got consent for operation very recently and the process for getting the authorization as per Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016 is under process.

PART-E
SOLID WASTE

Sl. No.	Solid waste	Total Quantity Generated	
		FY: 2020-21	FY: 2021-22
E-1: Generation from process			
1	Dolochar from DRI	NA	7855
E-2: Generation from Pollution Control Equipments (Tonne/year)			
1	Coal DE dust	NA	3882
2	Ash	NA	655
E-3: Quantity Recycled/Reutilized within the unit (Tonne/year)			
1	Dolochar from DRI	NA	7847
2	Si-Mn Slag	NA	2853
3	Ash	NA	655
4	Coal Pollution Equipment dust	NA	3882
E-4: Quantity Sold (Tonne/year)			

L			
E-5: Quantity Disposed			
i	Si-Mn Slag	NA	2853

PART-F
Characteristics of Hazardous as well as Solid wastes and their method of disposal

Hazardous/ Solid Wastes	Characteristics	Method of disposal
Used oil	Oily	Will be sale to authorized recycler

PART-G
Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production

1. Roof top rain water harvesting is being implemented at the beginning of the construction stage.
2. Dolochar generated from DRI process will be reused in CFBC for generation of power
3. Waste heat of DRI plant is being used to generate power through waste heat recovery boiler.
4. Highly efficient pollution control equipments have been installed at all the operation units.
5. Raw material handling systems are equipped with efficient Dust suppression control measures.
6. Pollution dust generated from coal handling system is reused in power plant.
7. All pollution dust closely conveying to a designated hopper to minimize fugitive dust.
8. Raw materials & products are conveying under fully covered condition.

PART H
Additional measures/ investment proposal for environmental protection abatement of pollution, prevention of pollution

Environment Budgets (Planned Vs Actual) for FY 2020-21

Sl. No.	Item	Expenditure (Lakh(s) INR) Year-2020-21
1	Recurring cost for environmental protection abatement of pollution for 2020-21	120
2	Installation of real-time dust analyzer	19.5
3	Installation of real-time SO_2-NOx analyzer	18.5
4	Installation of conveying system & pug mill for management of bag filter dust at DRI	15.0
5	Installation of conveying system & pug mill for management of ESP dust at DRI & CPP	23.5
6	Installation of ESP & Bag Filter	130
Total		**326.5**

PART I
Any other particulars for improving the quality of the environment

1. Around 50000 sq. meter area inside the plant premises is covered under paver block to minimize the fugitive dust.
2. We also doing third part environmental monitoring (quarterly) by NABL accredited as well as WBPCB recognized laboratory.
3. Water sprinkler has been installed to minimize the fugitive dust.
4. Housekeeping audit is being done each and every month for all units.
5. About 9800 Sq. meter of Garden has been added at various locations inside plant premises such as Administrative building, Weigh bridge, DRI Plant, Power Plant, Project Office Area, Ferro Alloys Plant etc
6. More than 2000 tree plantation has been done in and around the plant premises.

Annexure - 9

SRI OM INDUSTRIES

Manufacturer of Fly Ash Bricks and Pavers
Jamuria, Haripur Main Road, Vill - Damodarpur, P.O.- Jamuria
Dist.- Paschim Bardhaman (W.B.), Pin.- 713336
Contact No.- 933342867, 9434182447, 7797507777

Ref. No.:- *Date* .....

Date: 27/02/2020

To
M/s. Giridhan Metal Private Limited
Jamuria Industrial Estate, Po. Nandi
Ps. Jamuria, Dist. Paschim Bardhaman
(W.B) Pincode: 713344

Kind. Attn: Director

Dear Sir,

As discussed with you we are desirous of purchasing the following materials from your upcoming project as per market rate prevailing at that time or as mutually agreed.

1. Power Plant Fly Ash – Twenty Four Thousand Metric Tonne Per Annum

We would request you that whenever your plant commences production we should be given priority to lift the aforesaid material.

For Sri Om Industries
Partner

Damodar Ispat Limited

DAMODAR ISPAT LIMITED

Registered Office & Factory :
Jamuria Industrial Estate, P.O. Nandi, P.S. Jamuria, Jamuria, Paschim Bardhaman, W.B., Pin. 713344
Mobile : 7547914101, E-mail : info@damodarispat.in
CIN : U27310WB2003PLC095960, GST : 19AACCD0307J1ZX

Date: 27/02/2020

To
M/s. Giridhan Metal Private Limited
Jamuria Industrial Estate, Po. Nandi
Ps. Jamuria, Dist. Paschim Bardhaman
(W.B) Pincode: 713344

Kind. Attn: Director

Dear Sir,

As discussed with you we are desirous of purchasing the following materials from your upcoming project as per market rate prevailing at that time or as mutually agreed.

1. Power Plant Fly Ash – 2000-2500 MT per month (annually 25000 MT approx) for manufacture of Fly Ash Bricks.
   We additionally need
2. Bottom Fly Ash - 400-500 MT per month (annually 5000 MT approx) for manufacture of Paver Block.

We would request you that whenever your plant commences production we should be given priority to lift the aforesaid material.

For DAMODAR ISPAT LTD.

DAMODAR ISPAT LIMITED JAMURIA

[Authorised Signatory]

Accepted
For GIRIDHAN METAL PRIVATE LIMITED
Authorised Signatory

GIRIDHAN METAL PVT. LTD. Jamuria