

**Reply to the objection filed by the applicant dated 25.02.2021 in compliance to
the NGT order dated 28.06.2021 in O.A.No. 79/2020**

Sr. No.	Objection	Reply
1.	Lockdown imposed by the District Collector was not unforeseen. The Joint Committee may have planned the visit on more appropriate day.	The Lockdown was announced on 19.09.2020. By the time the committee members received information about the lockdown, they had already arrived at Raipur on 20.09.2020 for the purpose of visiting the industry on various NGT order under O.A.no. 04/2018 (Rajesh Rangari V/s Union of India), O.A.no. 33/2019 (Ramesh Agrawal V/s Union of India), O.A.no. 644/2019 (Sudhir and Shrikant V/s State of Chhattisgarh) and O.A.No. 79/2020 (Ashish Dewedi & Anr. V/s State of Chhattisgarh & Ors.) and it was not viable to cancel the visit. Therefore, the committee carried out the visit to the industry as per the plan on 21.09.2020 and departed from Raipur on the same day, as the lockdown was being imposed from 09:00 P.M on 21.09.2020.
2.	The Unit was operating under capacity during inspection.	It is the industry's sole discretion to operate the plant with the required capacity on any particular day based on the prevailing circumstances. Also, the stack monitoring and ambient air quality monitoring near process area of the industry was carried out on 16.12.2020 and not on the day of visit to the industry. Therefore, it would be incorrect to say that the industry's operation with under capacity influenced the judgment of the pollution problem in the industry. The monitoring report of the industry conducted on 16.12.2020 is attached herewith as ANNEXURE-A .
3.	The Joint Inspection Team in its report itself admitted that during the day of visit there was mild rain and hence fugitive emission could have easily suppressed due to rain. Further, the Joint Inspection Team rather than carrying out monitoring itself instructed the Unit to submit stack and monitoring report from a reputed laboratory.	As stated above, the monitoring of the industry was carried out on 16.02.2020. On the day of monitoring, it was not raining and fugitive emission was not visible on that day. Also, the industry has provided sufficient arrangements i.e. ID fan and Bag house to control the fugitive emission from the plant. Therefore, it would be incorrect to say that the judgment of the fugitive emission problem in the industry was impaired by the rain as monitoring of the industry was carried out on non-rainy day.
4.	The Joint Inspection Team in its report submitted that the combined consent was 15,900 MTPA of the Unit and the Respondent No.4; CECB used its diligence to consider the quantity. The CECB without giving any details of the breakup of each product and documents relied on for concluding that the Unit is operating within consented capacity.	The breakup of the consented capacity of the industry is as follows:- 1. Hi Carbon Ferro Chrome – 3600 M.T./Year 2. Hi Carbon Ferro Silicon – 2400 M.T./Year 3. Silico Manganese - 4500 M.T./Year 4. Ferro Manganese - 5400 M.T./Year
5.	The Unit is only producing Silico Manganese and Ferro Manganese beyond the consented capacity and not Ferro Chrome and Ferro Silica. That the Unit is not only violating consent condition but producing high quantity of Ferro	The consent u/s 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 has been granted to the industry on dated 25.06.1990. The EIA notification was enforced in the year 2006 and hence, the Environmental

	Manganese and Silico Manganese.	Clearance was not required for granting consent to the industry. The subsequent renewals of the consent has been granted to the industry at required intervals, the last being on 11.07.2019 and is valid upto 31.08.2024. The consent has been granted to the industry for installation of 02 Furnaces. The industry has not introduced any changes in the installed capacity of the furnaces, raw materials or manufacturing process. Also, the industry has kept its production within the consented limit of 15,900 M.T./Year. Thus, the industry has not increased its equivalent pollution load and kept the emissions within the consented norms.
6.	The Unit is producing Ferro Slag and Silico Slag in the plant as product.	Ferro slag and Silico Slag are the by-products produced in the manufacturing of Ferro Manganese and Silico Manganese. The consent granted to the board is for products manufactured by the Industry: 1. Hi Carbon Ferro Chrome – 3600 M.T./Year 2. Hi Carbon Ferro Silicon – 2400 M.T./Year 3. Silico Manganese - 4500 M.T./Year 4. Ferro Manganese - 5400 M.T./Year The slag is not considered as the product as it is a by-product of manufacturing process and the Industry can sell or use the slag as per its own discretion.
7.	Unit was illegally withdrawing ground water between 23.08.2011 to 18.03.2020. This Hon'ble Tribunal may take note of this and direct the CGWA to impose environment compensation of illegal withdrawal of ground water as per set methodology.	Industry has obtained NOC for groundwater withdrawal on 12.06.2019 and the firm is not liable to any penalty or Environmental compensation in this regard as per the public notices dated 01.04.2020 and 26.10.2020. The Copy of the public notices is attached herewith as ANNEXURE-B .
8.	Industrial unit has planted inadequate numbers of trees.	As per the Third Party Verification Report Submitted by the Industry on dated 07.07.2021, the industry has planted approximately 400 Nos. of trees inside and outside of the premises and approximately 1000 Nos. of trees in the additional land taken on lease. Therefore, the plantation done by the Industry can be considered to be satisfactory.

(G. Sreenath)
Scientist "B"

Central Ground Water Board
Raipur

(Manish Kashyap)
Regional Officer

Chhattisgarh Environment Conservation Board
Raipur

(Dr. R.P. Mishra)
Scientist "D"

Central Pollution Control Board
Bhopal

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Regional Directorate (Central)
Central Pollution Control Board

"Parivesh Bhawan" Paryawaran Parisar Nagar, E-5, Arera Colony
Bhopal - 462016

Tel: 0755-2775385/86, Fax: 0755-2775587

EPA Recognized Lab-2015

TEST CERTIFICATE

Source Emission Sample Analysis Report

CB/RDBPL/4.4.2/TC/

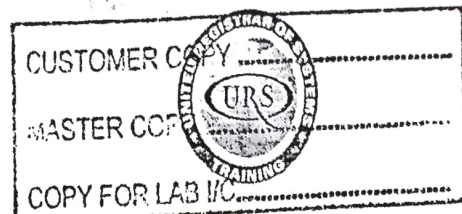
Sample from :		M/s. Jainam Ferro Alloys (I) Ltd. Urla I/A , Raipur (C.G.)		Req. No.04		Test report No:15/20-21	
Sample Description:		Main Stack		Registration No.		SE/20-21/15	
Date of collection:		16.12.2020	Type of sample: grab/composite		Date:	25 .12.2020	
Date of receipt :		21.12.2020	Sample collected By		Dr. R. P. Mishra, Rameshwar Bandewar & Sunil Kolhatkar		
Date of analysis :		24.12. 2020					
S. No.	Parameters	Unit	Result	Methods			
1.	Particulate Matter(PM)	mg/ Nm ³	24 (-)	USEPA-17, 3 rd Edition, 1998 (Gravimetric Method)			
2.	Sulphur Dioxide (So ₂)	mg/ Nm ³	---	USEPA- 6, 3 rd Edition 1998 (Titrametric Method)			
3.	Nitrogen Dioxide (No _x)	mg/Nm ³	---	USEPA -7, 3 rd Edition, 1998 (PDS Method)			
4.	Fluoride (F)	mg/Nm ³	-	USEPA-13 A , 3 rd Edition 1998 (Photometric Method)			
5.	Acid Mist	mg/Nm ³	-	USEPA- 8 , 3 rd Edition 1998 (Titrametric Method)			
6.	Other Specific Parameter	mg/Nm ³	-	USEPA- 29, 3 rd Edition 1998 (AAS/ Graphite generation)			

Note: () indicate OCEMS reading during Monitoring time

Prepared By:

Lab Head
Authorised Signatory

Millind Kumar Nimje
Laboratory Head



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TEST CERTIFICATE

Ambient / Fugitive Air analysis report

CB/ZOBL/7.5.2/MRA/01

Sample from:		M/s. Jainam ferro Alloys(I) Ltd. Urla I/A , Raipur (C.G.)		Req. No: 22		Test report No: 71/20-21	
Sample Description:		Near Process area		Registration No.:		AAQM/20-21/71	
Date of collection:		16.12..2020	Type of sample: grab/composite		Date:	25 .12.2020	
Date of receipt :		21.12.2020	Sample collected By		Dr. R. P. Mishra, Rameshwar Bandewar & Sunil Kolhatkar		
Date of analysis :		24.12.2020					
S. No.	Parameters		Unit	Result	Method		
1.	Suspended Particulate Matter (SPM) / PM-10		µg/M³	1315	ISC Method No. 501, Page no. 427 - 439, 3 rd ED. 1989 IS Method No. 5182, (Part -4), 1999		
2.	Particulate Matter PM- 2.5		µg/M³	--	ISC Method No. 501, Page no. 427 - 439, 3 rd ED. 1989		
3.	Nitrogen Dioxide (NOx)		µg/M³	--	IS Method No. 5182, (Part -6), 2006		
4.	Sulphur Dioxide (SOx)		µg/M³	--	IS Method No. 5182, (Part -2), 2001		
5.	Fluoride		µg/M³	-	AS 3580- 13.2- 1991/ 3580.13.3 - 1993 ,Sodium Acetate method		
6.	Ammonia		µg/M³	--	EPA -401 3 rd Edition 2000 Indo -phenol method		
7.	Other Specific Parameters		µg/M³				

Prepared By:

Lab Head

Authorised Signatory

Millind Kumar Nimje
Laboratory Head

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTHI
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION
CENTRAL GROUND WATER AUTHORITY
[Constituted under section 3(3) of Environment (Protection) Act, 1986]

No. 26-1/CGWA/PN/2018

Dated 01.04.2020

PUBLIC NOTICE

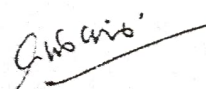
SUB: ATTENTION OF ALL EXISTING GROUND WATER USERS INCLUDING INDUSTRIAL, INFRASTRUCTURE AND MINING PROJECTS.

In view of the prevailing situation of lock down in the entire country due to COVID -19, the date for submission of application for NOC for ground water abstraction by the existing industries, infrastructure and mining projects is hereby extended till 30th June, 2020.

All the users drawing ground water are advised to submit their applications for NOC online through NOCAP portal of CGWA.

No hard copy of application or any other documents are being accepted at Regional Office of CGWB in order to contain the pandemic. All the documents are to be uploaded on NOCAP portal while submitting application.

The detailed directions , existing guidelines etc., are available on the web link: www.cgwa-noc.gov.in/Landing Page/Ground Water .htm / cgwb.gov.in .


(G.C.PATI)
CHAIRMAN
01.04.2020

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development & Ganga Rejuvenation
Central Ground Water Authority

PUBLIC NOTICE

New Delhi, Dated 26th October, 2020

Attention to All existing ground water users including industrial/ infrastructure/ mining projects

Whereas the Central Government constituted the Central Ground Water Authority (hereafter referred to as the Authority) vide notification Number S.O. 38(E), dated 14th January, 1997, followed by notification number S.O. 1124(E) dated 6th November, 2000 and S.O. 1121 (E) dated 13th May, 2010 of the Government of India in the Ministry of Environment & Forests, for the purposes of regulation and control of ground water development and management in the whole of India and to issue necessary regulatory directions.

And whereas the Authority has issued 'Guidelines to control and regulate ground water extraction in India' vide notification number 3289(E) dated 24th September, 2020.

Henceforth applications for NOC for ground water abstraction will be processed based on category of ground water assessment unit and not by notified/ non-notified areas. NOCs in areas notified earlier will also be governed by the revised guidelines and will be issued by Central Ground Water Authority or State/ Union Territory Ground water Authority as the case may be.

This is to bring to the notice of all ground water users that :

1. As Micro and Small Enterprises (MSEs) drawing less than 10 KLD of ground water are exempted from NOC, such MSEs, who have already submitted their applications prior to 24.09.2020 are required to submit self declaration as per format available on the website.
2. Ground water abstraction/ restoration charges shall be payable by all ground water users except those exempted from obtaining No Objection Certificate for ground water abstraction. Existing users shall pay abstraction charges w.e.f. 24.09.2020.
3. All existing users who have obtained NOC before 24.09.2020 and implemented/ installed Rain water harvesting/ artificial recharge will be eligible for rebate of 50% on Ground water abstraction/ restoration charges as per gazette notification, at the time of renewal. Users who have implemented

recharge but quantum of recharge is less than that the quantum as per guidelines (2015), will get rebate on pro rata basis.

4. All existing users who have already obtained NOC from CGWA are hereby directed to install digital water flow meter with telemetry in all existing ground water abstraction structures **irrespective of quantum of ground water withdrawal**, failing which the users shall be liable to pay penalty as per gazette notification.
5. Since the last date for submission of applications for NOC by the existing users was 30.06.2020, all existing users, except exempted categories, who have submitted their applications for NOC after 30.06.2020 and before 24.09.2020 shall be liable to pay penalty of Rs. 1 lakh under Section 15 of Environment (Protection) Act, 1986.
6. All existing users, except exempted categories, who have submitted their applications for NOC after 24.09.2020 will be liable to pay penalty of Rs. 1 lakh under Section 15 of Environment (Protection) Act, 1986 and Environmental Compensation w.e.f. 24.09.2020 as per the gazette notification.
7. All such industries who have submitted their applications for NOC prior to 24.09.2020, and are drawing ground water more than 100 KLD in critical and semi-critical assessment units, are mandatorily required to submit Impact Assessment Report from Accredited Consultant by 31.12.2020 to the concerned Regional Office.
8. Applications received prior to 24.09.2020 from all such industries located in over-exploited assessment units and drawing more than 100 KLD of groundwater will be processed only after receipt of Impact Assessment Report.
9. In case of mining projects involving dewatering, all applicants who have already submitted their applications for NOC are mandatorily required to submit comprehensive hydrogeological report on ground water conditions in both core and buffer zones of the mine, depth wise and year wise mine seepage calculations, impact assessment of mining and dewatering on ground water regime and its socio economic impact, details of recycling and reuse, recharge and reduction of pumping with use of technology for mining and water management to minimize and mitigate the adverse impact on ground water, prepared by Accredited Consultant by 31.12.2020.
10. All existing industries located in Safe, Semi-critical and Critical assessment units and drawing more than 100 KLD of groundwater, who have submitted their applications for renewal of NOC prior to 24.09.2020, are required to submit Water Audit Report from certified water auditors Latest by 31.12.2020.

11. Applications for renewal of NOC received prior to 24.09.2020 from the existing industries located in Over-exploited assessment units and drawing more than 100 KLD of groundwater shall be processed only after receipt of Water Audit Report from certified water auditors.
12. All new infrastructure projects, who have submitted their applications prior to 24.09.2020 and propose to draw more than 20 KLD of ground water are required to submit proof of installation of STP or submit an affidavit as per format available on the website.
13. All such infrastructure projects requiring water for commercial use, who have submitted their applications prior to 24.09.2020, are required to submit completion certificate or submit an affidavit as per format available on the web site.
14. New industries/ infrastructure/ mining projects, who have applied for NOC prior to 24.09.2020 and are falling within 500 m from the periphery of demarcated wetland areas are required to submit affidavit that they will submit copy of consent/ approval from the Wetland Authority to establish their project in the area as and when received by them.
15. New industries/ infrastructure/ mining projects, who have applied for NOC prior to 24.09.2020 and fall beyond 500 m from the periphery of demarcated wetland areas are required to submit affidavit as per format available on the website.

Member
Central Ground Water Authority

MINISTRY OF ENVIRONMENT AND FORESTS
NOTIFICATION
New Delhi, the 30th May, 2008

G.S.R.414(E) - In exercise of the powers conferred by Sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following Rules further to amend the Environment (Protection) Rules, 1986, namely:-

1. (1) These rules may be called the Environment (Protection) Fourth Amendment Rules, 2008.
 (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986, --
 (i) in Schedule I, after serial number 98 and the entries relating thereto, the following serial number and entries shall be inserted namely:-

Sl. No.	Industry	Parameter	Standard
1	2	3	4
99	Sponge Iron Plant (Rotary Kiln)	A. Emission Standards*	
		Parameter	Fuel Type
		Limiting value for Concentration	
		Particulate matter	Coal 100 mg/Nm ³ Gas 50 mg/Nm ³
		Carbon Monoxide (Vol/Vol.)	Coal /gas 1%
		Stack Height** (minimum)	coal/gas 30.0 m

Note:-

- * Emission shall be normalized at 12% CO₂ in stack emission.
 ** Stack height shall be calculated as $H = 14.0 Q^{0.3}$ where Q is emission of Sulphur Dioxide (SO₂) in kg/hr i.e.

SO ₂ (kg/hr)	Height (metre)
Upto 12.68	30
12.69-33.08	40
33.09-69.06	50
69.07-127.80	60
127.81-213.63	70

(De-dusting unit)

Particulate matter (mg/m ³)	Existing unit	New unit
	100	50

Note:-

- (i) Stack attached to de-dusting unit shall have minimum height of 30.0 metre.
- (ii) If, De-dusting unit is connected to After Burner Chamber (ABC), emission shall be emitted through common stack (minimum height 30.0 metre) having separate arrangements for emission monitoring for de-dusting unit.

(Rotary Kiln / De-dusting unit)

B. Fugitive Emission Standards

Particulate matter (µg/m ³)	Existing unit	New unit
	3000	2000

Note:-

- (i) The existing industry shall comply with a standard of 2000 (µg/m³) after one year the date of notification.
- (ii) Fugitive emission shall be monitored at a distance 10.0 metre from the source of fugitive emission as per following:

Area	Monitoring location
Raw material handling area	Wagon tippler, Screen area, Transfer points, Stock bin area
Crusher area	Crushing plant, vibrating screen, transfer points
Raw material feed area	Feeder area, Mixing area, Transfer points
Cooler discharge area	Over size discharge area, Transfer points, Product processing area, Intermediate stock bin area, Screening plant, Magnetic separation unit, Transfer points, Over size discharge area, Product separation area, Bagging area
Other areas	As specified by State Pollution Control Board / Pollution Control Committee

C. Effluent Standards

pH	5.5-9.0
Total suspended solids	100 mg/l
Oil & grease	10 mg/l
Chemical oxygen demand	250 mg/l

Guidelines / Code of Practice for Pollution Prevention for Sponge Iron Plants

1. Air Pollution

1.1 Stack Emission from Kiln

- (i) Suitable Air Pollution Control System shall be installed to achieve the prescribed stack emission standards. The following air pollution control system/combination of system are most commonly used in such type of industry:
 - Electrostatic Precipitator (ESP)
 - Bag Filter
 - Wet Scrubber
 - Cyclone / Multiclone
- (ii) All Pollution control equipment may be provided with separate electricity meter and totaliser for continuous recording of power consumption. The amperage of the ID fan may also be recorded continuously. Non-functioning of Pollution control equipment should be recorded in the same logbook along with reasons for not running the Pollution Control Equipment.
- (iii) The safety cap/emergency stack of rotary kiln type plant, which is generally installed above the After Burner Chamber (ABC) of feed end column should not be used for discharging untreated emission, bypassing the air pollution control device.
- (iv) In order to prevent bypassing of emissions through safety cap and non-operation of pollution control device, software controlled interlocking facility should be provided on the basis of real time data from the plant control system, to ensure stoppage of feed conveyor, so that, feed to the kiln would stop automatically, if safety cap of the rotary kiln is opened or Air Pollution Control System is not in operation. The system should be able to take care of multiple operating parameters and their inter relations to prevent any possibility of defeating the basic objective of the interlock. The system should be foolproof to prevent any kind of tempering. The software based interlocking system, proposed to be installed by industry should be get approved by the concerned State Pollution Control Board, for its adequacy, before installation by the industry.
- (v) Mechanical operated system for timely collection and removal of the flue dust generated in air pollution control device shall be installed.

1.2 Stack Emission from de-dusting units

All de-dusting units should be connected to a stack having a minimum stack height of 30 m. However, in specific cases stack height can be reduced as specified in the notified standards. Sampling porthole and platform etc. shall be provided as per CPCB emission regulation to facilitate stack monitoring. De-dusting units can also be connected to ABC Chamber and finally emitted through common stack with kiln off gas emissions.

1.3 Fugitive Emission

The measurement may be done, preferably on 8-hour basis with high volume sampler. However, depending upon the prevalent conditions at the site, the period of measurement can be reduced.

2. Effluent Discharge

- (i) All efforts should be made to reuse and re-circulate the water and to maintain zero effluent discharge.
- (ii) Storm water / garland drain should be provided in the plant.

3. Noise Control

The industry should take measures to control the Noise Pollution so that the noise level standards already notified for Industrial area are complied.

4. Solid Waste Management

Char

Char should be mixed with coal or coal washery rejects and used as fuel for generation of power. It is techno-economic viable option for plants having capacity 200 TPD and above. Also the smaller capacity individual Sponge Iron Plants (Capacity upto 100 TPD) and operating in cluster can collectively install common unit for power generation. The Sponge Iron Plant are free to explore other options / possibilities to use char for generation of power. Char can be sold to local entrepreneurs for making coal briquettes. It can also be mixed with coal fines, converted to briquettes and used in brick kilns. The industry can explore other reuse / recycling techniques for Char.

Under no circumstances char should be disposed off in agricultural fields/other areas. Logbook for daily record, of Char production and usage must be maintained by the industry and the record shall be made available to officials of CPCB/SPCB/PCC during inspection.

Kiln Accretions

The kiln accretions are heavy solid lumps and can be used as sub- base material for road construction or landfill, after ascertaining the composition for its suitability and ensuring that it should not have any adverse environmental impact. The industry can explore other reuse / recycling techniques for Kiln Accretions.

Gas Cleaning Plant (GCP)/Scrubber Sludge

The sludge should be compacted and suitably disposed off after ascertaining the composition for its suitability and ensuring that it should not have any adverse environmental impact. The industry can explore other reuse / recycling techniques for Gas Cleaning Plant (GCP)/Scrubber Sludge

Flue Dust

Flue dust is generated from air pollution control system installed with kiln. Secondary flue dust is also generated from air pollution control equipment installed with Raw Material Handling, Coal Crusher, Cooler Discharge and Product house unit. The reuse/ recycling of the flue dust generated / collected may be explored and suitably implemented.

Fly ash

Fly ash is generated from Char / Coal based Captive Power Plant, if any. Fly ash brick making plant may be install for fly ash utilization. Fly ash can be utilized in cement making by Cement industry also. The industry can explore other reuse / recycling techniques for Flue Dust / Fly ash.

Bottom Ash

Bottom ash is generated from Char / Coal based Captive Power Plant, if any. Bottom ash may have objectionable metallic compounds, therefore should be stored in properly designed landfills as per CPCB guidelines to prevent leaching to the sub-soil and underground aquifer.

General

- (a) Solid waste management program should be prepared with thrust on reuse and recycling. Solid waste disposal site should be earmarked within the plant premises. The storage site of solid waste should be scientifically designed keeping in view that the storage of solid waste should not have any adverse impact on the air quality or water regime, in any way.
- (b) The various types of solid wastes generated should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality,

becoming air borne by wind or water regime during rainy season by flowing along with the storm water.

5. Raw Material handling and Preparation

- (a) Unloading of coal by trucks or wagons should be carried out with proper care avoiding dropping of the materials from height. It is advisable to moist the material by sprinkling water while unloading.
- (b) Crushing and screening operation should be carried out in enclosed area. Centralized de-dusting facility (collection hood and suction arrangements followed by suitable de-dusting units such as bag filter or ESP or equally effective method or wet scrubber or any other de-dusting unit and finally discharge of emission through a stack) should be provided to control Fugitive Particulate Matter Emissions. The stack should conform to the emission standards notified for de-dusting units. Water sprinkling arrangement should be provided at raw material heaps and on land around the crushing and screening units.
- (c) Work area including the roads surrounding the plant shall be asphalted or concreted.
- (d) Enclosure should be provided for belt conveyors and transfer points of belt conveyors.

The above enclosures shall be rigid and permanent (and not of flexible cloth type enclosures) and fitted with self-closing doors and close fitting entrances and exits, where conveyors pass through the enclosures. Flexible covers shall be installed at entry and exit of the conveyor to the enclosures, minimizing the gaps around the conveyors.

In the wet system, water sprays/ sprinklers shall be provided at the following strategic locations for dust suppression during raw material transfer:

- Belt conveyor discharge/ transfer point
- Crusher/screen discharge locations

6. Waste Heat Recovery Boiler (WHRB)

Sponge Iron Plants of capacity more than 100 TPD kilns may use Waste Heat Recovery Boiler (WHRB) for generation of power. Installation of Waste Heat Recovery Boiler (WHRB) may qualify the industry for CDM benefits.

7. Cooler Discharge and Product Separation Unit

Permanent and rigid enclosures shall be provided for belt conveyors and transfer points of belt conveyors. Dust extraction cum control system to arrest product loss in cooler discharge and product separation area may be installed.

8. Char based Power Plant

For plant having capacity of 200 TPD of cumulative kiln capacity, the power generation using char as a part of fuel, is a viable option. Power generation using char as a part of fuel may be implemented in a phased manner targeting for 100% utilization of char.

Individual Sponge Iron Plants of capacity upto 100 TPD and located in cluster can install a common char based power plant collectively.

9. New Sponge Iron Plants

- (i) No New Sponge Iron Plant will be commissioned without installation of Pollution control systems to achieve the stipulated Standards. The concerned State Pollution Control Board will accord consent to operate only after physical verification of the adequacy of the installed pollution control systems for meeting the standards and stipulated conditions in the consent to establish.
- (ii) All new kilns shall have independent stack with the kiln or multi-flue stacks in case two or more kilns are joining the same stack for better dispersion of pollutants.
- (iii) Any entrepreneur having more than 2x100 TPD kiln may install WHRB for power generation, as it's a technically viable option, which also qualify the industry for CDM benefits.

For plants having capacity of 200 TPD or more, power generation using char as part of fuel in boiler is techno-economic viable option, therefore, new plants may install power generation unit at the time of installation of the industry.

10. General Guidelines

- (a) Extensive plantation/Green belt shall be developed along the roads and boundary line of the industry. A minimum 15 m width Green Belt along the boundary shall be maintained. However, the green belt may be

designed scientifically depending upon the requirement and local and native species of plants may be selected for the green belt.

- (b) Monitoring of stack emissions, fugitive emissions, trade effluent and noise level shall be done as per CPCB regulations. On line stack monitoring facilities shall be provided and operated continuously to ensure compliance to stack emission standards. Calibration of the system to be carried out by a third party accredited laboratory. List of the accredited laboratory may be obtained from CPCB/SPCB.
- (c) Pollution control systems shall be operated as an integral part of production to ensure minimum emissions. Pollution Control System shall start before conveyor operation/operation of plant. Similarly pollution control system shall be stopped only after completion of conveyor operation/operation of plant so that possibility of dust settlement in ducts can be eliminated. Continuous evacuation of dust from air pollution control systems such as Dust catchers, ESPs, Bag filter hopper etc. shall be organized.

11. Siting Guideline for Sponge Iron Plants

Siting of new sponge iron plants shall be as per respective State Pollution Control Board guidelines. However the following aspects shall also be considered:

- (a) Residential habitation (residential localities/ village) and ecologically and/or otherwise sensitive areas: A minimum distance of at least 1000 m (1.0 km) to be maintained.
- (b) If any plant/clusters of plants are located within 1 km from any residential area/ village they may be shifted by State Pollution Control Board/ State Govt. in a phased manner for which a time bound action plan is to be prepared by SPCBs.
- (c) The location of Sponge Iron Plant should be at least 500 m away from National Highway and State Highway.
- (d) Radial distance between two Sponge Iron Plants should be 5 km for plants having capacity 1000 TPD or more.
- (e) Sponge Iron Plants can be established in designated industrial areas / Estates as notified by State Govt.