



Government ITI Manbazar

(GR19000159)

Vill – Bamni, PO + PS – Manbazar, Pin – 723131, Dist – Purulia, West Bengal

Industrial Visit Report

On

06.07.2022

At

Bravo Sponge Iron Private Limited

(Shakambhari Group)

Vill – Rukni, PO – Mohuda, PS – Para, Dist – Purulia, West Bengal, Pin - 723145



A complete report on industrial visit organized by Government ITI Manbazar running under PTP for the trainees of Fitter (2nd year), Electrician (2nd year) & Welder trade in order to get the practical knowledge about “advanced technology used in manufacture of sponge iron” carried out by Bravo Sponge Iron Private Limited.



Group Photo at Entrance Gate of the Plant

Objectives

- To experience and understand real life situation in an industrial organization and related environment and accelerating the learning process of how knowledge could be used in realistic way.
- To help students get accustomed to an organizational structure, business operation and administrative functions.
- To gain the knowledge of selecting the optimal solution in handling the situation and to learn the accepted safety practices in the industry.

The essence of the ITI lies in the synergic relationship between the student and his department. An industrial visit at Bravo Sponge Iron Private Limited will be the most logical extension of our academic pursuits and will be very helpful in achieving our objectives.

Company Profile

CIN	U27106WB1997PTC082921
Company Name	BRAVO SPONGE IRON PRIVATE LIMITED
Company Status	Active
RoC	RoC-Kolkata
Registration Number	82921
Company Category	Company limited by Shares
Company Sub Category	Non-govt company
Class of Company	Private
Date of Incorporation	14 February 1997
Activity	Manufacture of Basic Iron & Steel Click here to see other companies involved in same activity.

The Journey

The industrial visit was witnessed by 43 trainees who were accompanied by the Principal Mr. Aritram Chatterjee, TPO Mr. Chandi Charan Majee, faculty Mr. Pabitra Dey and Mr. Sushanta Mahto. All the students were very excited and left the campus on 06th July, 2022 at 8:00 am by 5 Bolero cars. The journey was very comfortable and enjoyable. We had breakfast at a decent hotel on the way. As the time passed by, we reached the industry – Bravo Sponge Iron Private Limited at around 11.00 am.

It was very comforting with a beautiful ambience. We take tea & snacks with some introductory speech. After the industry visit, we did our lunch in industry canteen and left for our college. Everyone was motivated and a bright smile could be seen at everyone's face. Everyone was happy after such a wonderful experience. Such visits really added up to the little knowledge of the students. Everyone is thankful to our college management and everyone involved for this visit, from the core of our hearts.



Time of Entry

Visit Summary

Session 1: By Deepak Shaw – General Manager (HR, IR & Admin)

Mr. Shaw welcomed all the members of our ITI & introduced the students and faculty members to the other officials of the plant. He gave us a brief about how to represent our industry or brand to the outside world, how to understand the other industry and then find out ways to create our demand for them. The real life connection of the examples, made it very easy for us to understand the things.

Session 2: By Tapas Kumar Chakraborty – General Manager (CPP)

Mr. Chakraborty briefed over all technical process of sponge iron production with a very suitable and simple real life example of a human. He spoke about the plant's own power generation system.

Session 3: By Siddharth Ranjan Deb – Deputy General Manager (Grinding - Operation)

Mr. Deb gave a brief speech on different technical procedure of the manufacturing process. He explained about Direct Reduced Iron (DRI) system. As well as he spoke about tree plantation and beautification in plant area to reduce the pollution.

Session 4: By Mohammad Kalim – Manager (Safety)

"PRODUCTION IS MUST, BUT SAFETY IS SUPER MOST". Safety is very important aspect for any industry as an accident free work environment boosts the morale of the team members working in any hazardous situations. Mr. Kalim gave an excellent speech on different safety measurements, accident and different hazards.



Trainees at the time of induction



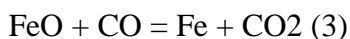
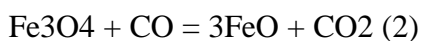
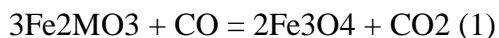
Managers and officials at the time of induction

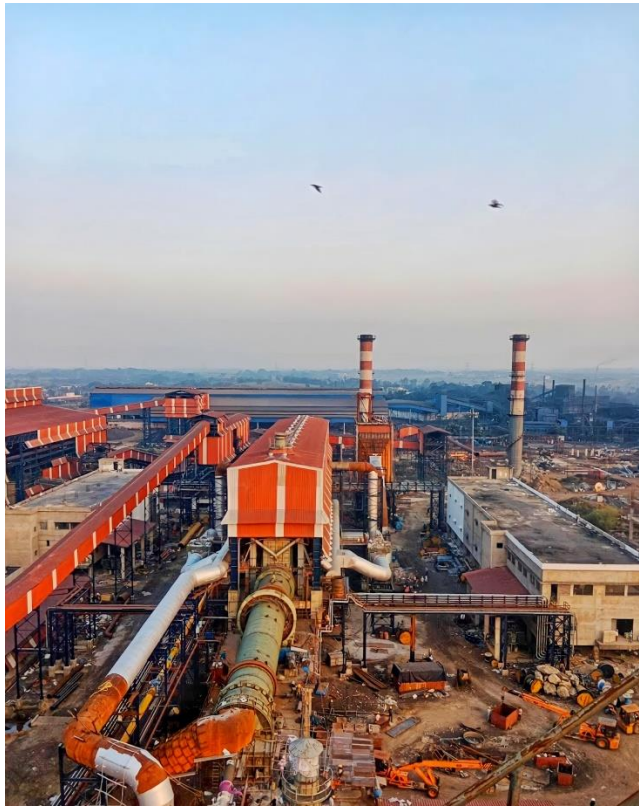
After that we started plant visit. It is an automated integrated steel plant comprising of:

- DRI Unit.
- Steel Melting Shop equipped with Electric Arc Furnace.
- Continuous Billet Casting Unit; and
- Rolling Mill with Thermex system.

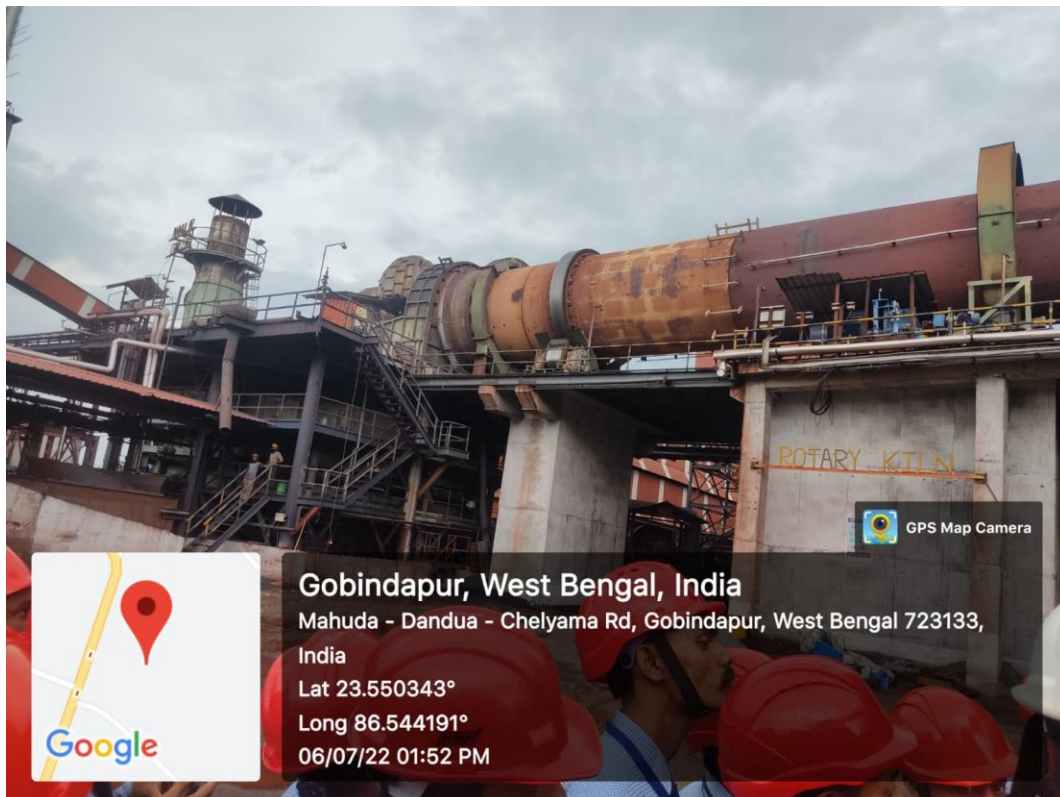
1) DRI Unit:

In the Direct Reduced Iron (DRI) plant, production of sponge iron using a solid reductant involves reducing iron ore (lumps/pellets) with a carbonaceous material such as coal. The reduction is carried out in a rotary kiln (which is inclined and rotates at a pre-determined range of speeds) at a stipulated temperature (850°C -1,500°C). The inclination and the rotary motion of the kiln ensures that the raw materials moves from the feed end to the discharge end of the kiln and during this movement the actual reduction of iron ore to iron takes place. The material discharged from the kiln is taken to a rotary cooler for cooling and the cooled product is separated from the coal char. The basic reactions involved are as follows:





Top view of the Plant



Rotary Kiln



Boiler



Iron Ore

2) Electric Arc Furnace:

Steps involved in an Arc Furnace can be summarized as follows:

a) Charging:

The charge is prepared according to the proposed chemistry for the targeted grade. Sponge Iron and other ingredients along with lime in a close requisite ratio are charged in the Arc Furnace.

b) Melting:

Melting is accomplished by injecting energy to the charge materials in the form of electrical energy through three graphite electrodes. Carbon injected inside the furnace reacts with oxygen producing CO, which bubbles through the bath creating foamy slag. The excess CO reacts with oxygen, converting to CO₂ again generating heat.

c) Refining:

Refining means reduction of undesirable elements in steel like sulphur, phosphorous etc and also bringing down the carbon to required levels. Phosphorus and sulphur which cannot be removed in Induction Furnace can be easily removed in EAF. At the end of refining stage temperature measurement is done and sample is drawn for analysis.

d) De-slagging:

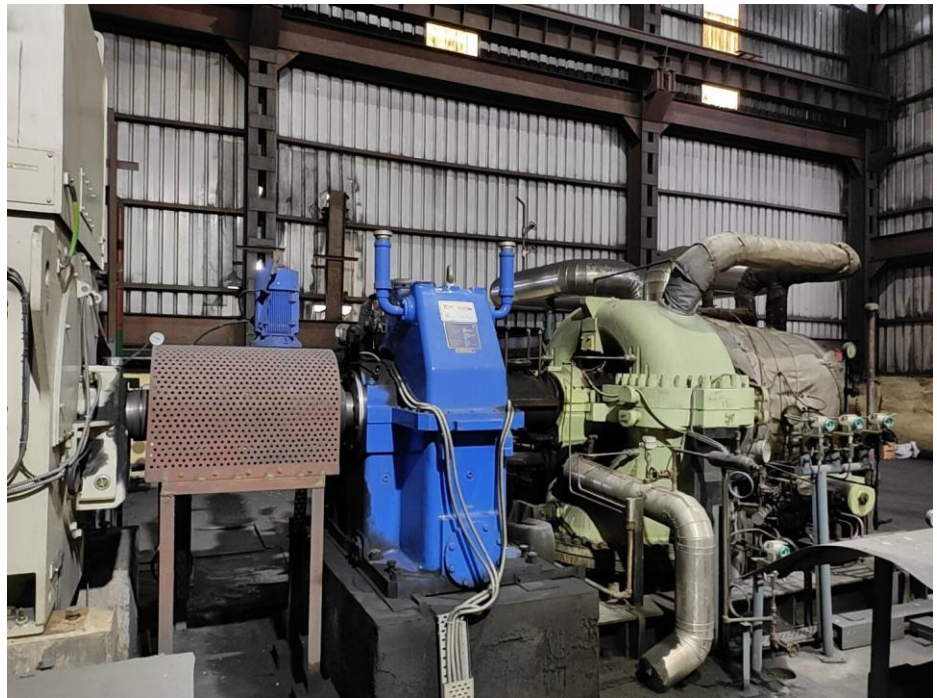
De-slagging is the process by which the slag layer above the steel is removed from the furnace. This process is important for removing impurities from the molten material. The furnace is tilted towards the slag door for slag removal. Typically during the refining stage, the furnace may be de-slagged several times.

e) Tapping:

After reaching the required temperature and composition, the tap hole is opened and metal is tapped into the ladle and sent to continuous casting unit for casting of billets. During the tapping process bulk alloys are added based on the bath analysis for the desired steel grade.



Electro Magnetic Furnace



Thermal Power Station

3) Continuous Billet Casting:

Molten steel from EAF is tapped into a ladle and taken to the continuous casting machine. Liquid steel flows out of the ladle into the tundish and then into water cooled mold. Solidification begins in the mold. The continuous billets coming out from the CCM is sized according to the length required.

4) Rolling Mill with Thermex Technology:

The billets manufactured are re-heated at a temp. of 1200°C in the re-heating furnace and are rolled into specific sections of finished material in the Rolling Mill Unit.



Hot Rolling Mile



Cooling Plant

Observations:

1. The fire safety in the industrial plant was very good.
2. The workers were aware about the steps to be taken at the time of accidents and emergency.
3. Sufficient emergency exits were made for evacuation.
4. The record for accidents in the plant was made according to the amount of damage done and number of casualties reported. Also the report was displayed on the notice board of each and every plant.
5. Backup machineries were available for use in case of breakdown and maintenance of critical machines.
6. Maintenance of machines is carried out on regular basis to prevent breakdowns.
7. Workers working under dusty and noisy environments were using face masks and ear plugs respectively.
8. All the students were provided safety helmet during the visit.
9. 0 child labors in the industry.
10. First aid kits were available at the desks at each and every department.



At the time of Plant Visit (1)



At the time of Plant Visit (2)



At the time of Plant Visit (3)



At the time of Plant Visit (4)



At the time of Plant Visit (5)

HOSPITALITY:

The hospitality of all the people working there was overwhelming.

1. Excellent quality of lunch was provided and sponsored by the company to the students.
2. The industrial guides assigned were very friendly and explained each and every detail without any hesitation and hurry.
3. The workers and the staff were very cooperative to the students.

INFRASTRUCTURE:

- The plants of the industry were clean and airy. Sufficient arrangements for lighting were made in the plant.
- Modern & automated machine tools were available and used by trained workers.
- Separate sheds are available for different stages of manufacturing.
- There are very beautiful tree plantations and beautification in different places.



Trainees with TPO



Trainees with Principal

Approach Letter to Industry for Industrial Visit:

GOVERNMENT ITI MANBAZAR
RUNNING UNDER PTP

BAMNI, MANBAZAR
DIST - PURULIA
WEST BENGAL
PIN-723131

Ref.No. MNGcITI/2022/566 Date 25/05/2022

Government ITI Manbazar
GR1000109
ESTD-2016
Bamni, Manbazar, Purulia

To
The President
Bravo Sponge Iron Private Limited (BSPL)
Rukni, Purulia, 723128, WB

Sub: Approach Letter for industrial visit of our ITI trainees.

Most respectfully, I, the undersigned on behalf of Govt. ITI Manbazar would like to introduce ourselves as one of the top rank ITI of Purulia district. Presently we are running the following CTS trades: Electrician, Fitter, Surveyor, Welder, and Plumber.

I would like to inform you that according to NCVT syllabus & guidelines industrial visit of each of our trainee is mandatory. So, for better implementation of practical knowledge towards our students we are approaching you to allow our trainees for industrial visit for 1 days according to your suitable date & time.

We are pleased to inform you that one of our senior instructor will be present always during the visiting time. We will direct our trainees to strictly maintain Covid Protocol during training period. Prior the start of industrial visit we will send you the trainee list for your convenience.

In this regard consent from your end is mandatory for us. If you wish to extend a hand towards us then we take initiative to implement the same. Your co-operation in this regard will be highly appreciated.

With Best Regards,

Signature
25/5/22
Mr. Arifam Chatterjee
Principal
Principal
Manbazar-1 Government ITI
run under PTP mode

Website: www.manbazargovernmentiti.com, E-mail: manbazariti@gmail.com, Contact No: 9083298437 / 9083287529

Scanned with CamScanner

Approach Letter Copy for Industrial Visit

List of students details:

Screenshot of confirmation mail

MANBAZAR GOVT ITI <manbazariti@gmail.com>

Trainee List for Industrial Visit

Manbazar Govt ITI <manbazariti@gmail.com>
To: deepak.shaw@shakambhargroup.co.in
Cc: mngitipocell@gmail.com

Mon, Jul 4, 2022 at 4:02 PM

Respected Sir,

First of all, thank you very much for your kind cooperation. We have started the process of industrial visit according to your reply which will be held on 06/07/2022. Following is the detailed list of the trainees we have nominated for this visit. I request you to please create a gate pass and necessary steps for the following trainees.

Nominated trainees of Manbazar Government ITI for Industrial Visit				
Sl. No.	Registration No.	Name of the Trainee	Father's Name	Trade
1	R210819016538	AKTAR ANSARY	SAIYAB ANSARY	Welder
2	R210819016540	ANGSHUMAN MAJEE	ASHOK KUMAR MAJEE	Welder
3	R210819016546	DIPAK KUMAR KARMAKAR	KRISHNAPADA KARMAKAR	Welder
4	R210819016573	BISWAJIT MAHATO	NITAI MAHATO	Welder
5	R210819016593	ARUP SINGH SARDAR	JOYDEV SINGH SARDAR	Welder
6	R210819016555	NISHIT PARAMANK	CHAKRADHAR PARAMANK	Welder
7	R210819016558	PRASANT MAHATO	DASARATHI MAHATO	Welder
8	R210819016561	SANJOY MAHATO	PARIKSHIT MAHATO	Welder
9	R210819016565	UTPLA MAHATO	CHANDRAKANTA MAHATO	Welder
10	R210819016567	BKRAM MAHATO	BIKASH MAHATO	Welder
11	R210819016575	KAMEL MANDI	CHUNARAM MANDI	Welder
12	R210819016581	RAKESH MAHATO	BALARAM MAHATO	Welder
13	R210819016568	BABIN MUNDA	GURUPADA MUNDA	Welder
14	R210819016571	BIPLAB KALINDI	CHUNARAM KALINDI	Welder
15	R210819016589	SUSANTA MUNDRA	SANTOSH MUNDRA	Welder
16	R210819016542	ASISH MAHATO	LAKSHMAN MAHATO	Welder
17	R200819010230	CHANCHAL DEY	PBABHAS CHANDRA DEY	Electrician
18	R200819010233	HEMANTA SURBABU	NAGENDRANATH SURBABU	Electrician
19	R200819010234	MAHITOUSH DEY	BISWANATH DEY	Electrician
20	R200819010128	SOURAV SEN	GOPAL CHANDRA SEN	Electrician

21	R200819010328	BHABATOSH BOURI	AKALI BOURI	Electrician
22	R200819010331	HEMANTA MUJI	CHAI TANYA MUJI	Electrician
23	R200819010333	HEMANTA TUDU	LATE AMULYARATAN TUDU	Electrician
24	R200819010334	IRFAN ANSARY	MANSHURUL ANSARY	Electrician
25	R200819010336	MOUSUM BAURI	SAIBUR BAURI	Electrician
26	R200819010337	NABIN PARAMANK	KAMALAKANTA PARAMANK	Electrician
27	R200819010223	ANANDA DEY	ADITYA DEY	Electrician
28	R200819010232	DIPAM KUKHERJEE	DILIP KUMAR KUKHERJEE	Electrician
29	R200819010235	NILKANTHA PAUL	SRISTIDHAR PAUL	Electrician

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7/8/22 4:21 PM

Gmail - Trainee List for Industrial Visit

30	R20081901003	PRAKASH MAHAUTO	SUNIL MAHAUTO	Electrician
31	R200819010237	RAHUL MANDAL	SUNIL KUMAR MANDAL	Electrician
32	R200819010124	RAJEN GORAN	SANDIP GORAN	Electrician
33	R200819010125	RAMESH GHATWAL	DEEPAK GHATWAL	Electrician
34	R200819010242	TUSHAR PARAMANIK	BHAGYA PARAMANIK	Electrician
35	R200819010298	KIDDOUS ANSARY	DOULAT ALI ANSARY	Fitter
36	R200819010317	PUJA MAHAPATRA	BISWAJIT MAHAPATRA	Fitter
37	R200819010320	SABITA MEMRAM	KUTU MEMRAM	Fitter
38	R200819010343	TANNOM DASH	GOUMDAN DASH	Fitter
39	R200819010186	BDANI TUDU	LATE SAAHEBD TUDU	Fitter
40	R200819010187	BAPPA RUHIDAS	SUDHANGSI RUHIDAS	Fitter
41	R200819010188	BHABOTOSH PARAMANIK	MADHUSUDAN PARAMANIK	Fitter
42	R200819010206	JAGADISH MAHAUTO	AJIT MAHAUTO	Fitter
43	R200819010211	NIRMAL PARAMANIK	SIRIRAM PARAMANIK	Fitter

Along with trainees some faculties of our institute will go on that day for the assistance of our trainees. The name of the faculties are - 1) Pabitra Dey (Electrician), 2) Chandi Charan Majee (Welder), 3) Mukesh Kumar Pandey (Fitter).

Thanks & Regards
Principal
Government ITI Manbazar

Mode of travel:

Sl. No.	Details	Mode of travel	Car No.	Name & Phone Number of Agent or Driver
1	Government ITI Manbazar to Bravo Sponge Iron Private Limited (Up & Down)	Bolero Car	WB 56J 9917	Tapash Bauri 9679690843
2			WB 56H 8205	
3			JH 05AE 5632	
4			WB 56M 7924	
5			WB 42 AP 6324	



Principal and Faculties with the Bravo Sponge Iron Pvt. Ltd. Team

Media Release:

Institute's Facebook Post Link ↓

https://m.facebook.com/story.php?story_fbid=605394854337371&id=100046005853433&sfnsn=wiwspmo



Purulia Jangalmahal News

Submitted By:

Mr. Chandi Charan Majee
Training Placement Officer
Government ITI Manbazar

Approved By:

Mr. Aritram Chatterjee
Principal
Government ITI Manbazar