Executive Summary
of
Interlinked Projects

GREENFIELD INTEGRATED STEEL PLANT
[Iron ore beneficiation Plant: 2.0 MTPA, Pelletisation Plant with Coal Gasifier (2 X 17000 Nm3/Hr): 1.40MTPA, Sinter Plant (1X90 M^2): 1.0 MTPA Coke Oven: 0.5 MTPA, Blast Furnace (2x550 M^3): 1.16 MTPA, Submerged Arc Furnace (2X 9 MVA) for FeMn /SiMn/ FeCr With AOD Converter): 0.042 MTPA, Submerged Arc Furnace (2X 12 MVA) for Titanium Slag: 0.036 MTPA, Power Generation : 85 MW {30MW AFBC/CFBC and WHRB 55MW}, Oxygen Plant: 250 TPD, Fly Ash Brick plant: 2 crore bricks per annum and Railway Sliding]

Project by

Shri Bajrang Power & Ispat Limited

At

KH No. 508/28 and other Survey nos., Village – Jalso,
Tehsil – Tilda, District – Raipur, Chhattisgarh

And

GREENFIELD STEEL PLANT
[Sponge Iron: 0.33 MTPA, Steel Melting Shop: EOF-LRF with slab caster: 1.1 MTPA, Hot Strip Mill: Flat Products (HR Coil/MS Plate): 1.0 MTPA, Power Generation:65 MW { AFBC/CFBC : 45 MW, WHRB : 20 MW }, Oxygen Plant :250 TPD and Fly Ash Brick Plant – 2 crore bricks per annum]

Project by

M/s. Shri Bajrang Steel Corporate Limited

At

Kh. No. 445/21 and other at Village Jalso, Tehsil Tilda, District Raipur, Chhattisgarh

Environmental Consultant

Pollution and Ecology Control Services

NABET Extension Letter: QCI/NABET/ENV/ACO/21/2133 dated 17th November, 2021

EXECUTIVE SUMMARY

1.0 INTRODUCTION

The present report is a combined EIA/EMP report for the interlinked project i.e. Integrated Steel Plant of Shri Bajrang Power and Ispat Limited (SBPIL) and steel plant of Shri Bajrang Steel Corporate Limited (SBSCL). This report is prepared as per the format mentioned in 14th September 2006 Notification of Ministry of Environment, Forest & Climate Change (MoEF&CC), Government of India & in subsequent amendments and the OM dated 24/12/2010 prescribed by MOEF &CC, for the combined EIA report of interlinked project.

Earlier Shri Bajrang Steel Corporate Limited (SBSCL) proposed to set up an integrated steel plant in Chhattisgarh State. The technological process route selected by SBSCL is Coal based Sponge Iron plant – Induction furnace/ electric arc furnace - rolling mills for production of long as well as flat products with inclusion of Blast Furnace, Sinter Plant, Pelletization Plant, Iron Ore Beneficiation, Oxygen Plant, Ferro Alloys with AOD Converter, Titanium Slag Fly Ash Brick Plant and Railway Siding. The proposal was considered by the EAC (Industry 1) in its 32nd meeting of the Re-constituted EAC (Industry-I) held on 15th -17th March, 2021. After deliberations, the Committee recommended the project proposal for prescribing specific ToRs along with generic TOR and additional TOR for undertaking detailed EIA and EMP study. Accordingly, TOR was issued vide letter no J-11011/37/2021-IA.II (I) dated 30th March 2021. The company wish to propose transfer/changes/modification/addition in the proposed project for which above referred TOR has been issued by MOEF & CC, New Delhi. The Project was split up in two companies i.e. Shri Bajrang Steel Corporate Ltd and Shri Bajrang Power and Ispat Limited.

Accordingly applications were made for transfer of TOR and amendment of TOR by **Shri Bajrang Power and Ispat Limited (SBPIL)**. The Project was apprised and recommended for transfer of TOR with amendment in its 42nd meeting and TOR was granted vide No. J-11011/37/2021-IA.II (I) dated 10th September 2021 for the following products.

Sr. No	Product	Quantity
1	Iron Ore Benefication Plant	2.0 MTPA
2	Pelletization Plant with Coal gasifier (2X17000 NM^3/hr)	1.40 MTPA
3	Sinter Plant (1x90m^2)	1.0 MTPA
4	Coke Oven	0.5 MTPA
5	Blast Furnace (2x550 m^3)	1.16 MTPA
6	**Ferro Alloy Plant**	
i)	Ferro Alloy with AOD convertor Fe-Mn/ Si-Mn /Fe-Cr (2X9 MVA SAF)	42000 TPA
7	Titanium Slag (2X12 MVA SAF)	36000 TPA (2X18000TPA)
8	**Power Generation**	
i)	Waste Heat Recovery Based Power plant (WHRB)	55 MW (35 coke oven gas based + 20 MW BF gas based)
ii)	Coal Based Power Plant (CFBC/AFBC)	1X 30 MW
9	Oxygen Plant	1X250 TPD
10	Fly Ash Brick plant	2 Crore bricks per annum
11	Railway siding	3.0 MTPA

Another application had made for the issue of fresh TOR in the name of **Shri Bajrang Steel Corporate Limited (SBSCL)** on 18-09-2021. The Project was appraised and recommended for fresh TOR. TOR was granted vide No. J-11011/304/2021-IA.II (IND-I) dated 18th October 2021 for the following products

Sr. No	Product	Quantity
1	Sponge Iron	0.33 MTPA (2x500 TPD)
2	Steel Melting Shop EOF-LRF with slab Caster	1.1 MTPA (2 x 0.55 MTPA) (2X65T EOF with 24.5 heat /per day per EOF, 2 X65 T LRF & 2x1 strand slab caster 9 m radius)
3	Hot Strip Mill - Flat Products (HR Coil/MS Plate)	1.0MTPA
4	**Power Generation (65 MW)**	
i)	Waste Heat Recovery Based Power Plant (WHRB)	20 MW
ii)	Coal based Power plant (AFBC/CFBC)	1x45 MW
5	Oxygen Plant	1x250 TPD
6	Fly Ash Brick plant	2 Crore Bricks Per Annum

Salient features of the proposed project site

S.N.	Details	Shri Bajrang Power and Ispat Limited (SBPIL)	Shri Bajrang Steel Corporate Ltd
i.	Plot no.	Kh.No. 508/28 and other at Village Jalso, Tahsil Tilda, Dist. Raipur, Chhattisgarh	Kh.No. 445/21 and other at Village Jalso, Tahsil Tilda, Dist. Raipur, Chhattisgarh.
ii	Village	Jalso	
iii	Tehsil	Tilda	
iv	District	Raipur	
v	State	Chhattisgarh	
vi	Co-ordinates	A) 21°28'20.15"N 81°48'21.95"E B) 21°28'1.25"N 81°48'17.23"E C) 21°27'52.86"N 81°47'57.25"E D) 21°27'54.26"N 81°47'31.42"E E) 21°28'2.44"N 81°47'18.54"E F) 21°28'19.88"N 81°47'34.67"E G) 21°28'20.66"N 81°47'46.48"E	A) 21°28'20.66"N 81°47'46.55"E B) 21°28'45.00"N 81°48'1.93"E C) 21°28'46.97"N 81°48'23.44"E D) 21°28'25.14"N 81°48'30.18"E E) 21°28'10.67"N 81°48'21.40"E F) 21°28'20.14"N 81°48'21.96"E
vii	Altitude	290 m (avg) above msl	
viii	Village, Tehsil, District, State	Jalso Village, Tilda Tehsil, Raipur District, Chhattisgarh.	
ix	Nearest water bodies	Kirna Tank:Adjacent : 200 m (SSW) Jamuniya Nadi : 3.5 Km (ENE) Dhumma Nala : 1.0 Km (W) Pindraon Tank : 7.5 Km (SE) Mahanadi Canal : 0.7 Km (NW) Krishna Irrigation Channel : 1.1 km WNW	Kirna tank: 1.0 Km (SSW) Jamuniya Nadi : 3.2 Km (ENE) Dhumma Nala : 1.3 Km (W) Pindraon Tank : 7.0 Km (SE) Mahanadi Canal : 1.0 Km (NW) Krishna Irrigation Channel : 1.3 km – WNW

x	Nearest Highway	The National Highway (NH-130) Raipur - Bilaspur 19.5 km – NW The State Highway (SH-9) Raipur - Baloda Bazar -9.0 km in SSE Tida Simga Road : 3.5 Km (NE) SH – 2 : 9.0 Km (W)	1. The National Highway (NH-130) Raipur – Bilaspur:19 km N 2. The State Highway (SH-9) Raipur - Baloda Bazar 9.2 km in SE 3. Tilda Simga Road : 3.0 Km (NE) 4. SH – 2 : 10.0 Km (W)
xi	Nearest Railway station	Baikunth RS – 3.0 km - NW	Baikunth Railway Station : 3.2 Km (NW)
xii	Nearest Industries	Shri Bajrang Power & Ispat Ltd (Tilda Division) - 2.5 Km – NW Century Cement– 2.5 Km NNW Century Cement Mine– 3.0 Km – NNW Adani GMR Chhattisgarh Power Project - 4.5Km - ESE	Shri Bajrang Power & Ispat Ltd (Tilda Division) - 2.3 Km – NW Century Cement– 3.0 Km – N Century Cement Mine– 3.1 Km – N Adani GMR Chhattisgarh Power Project - 4.8 Km - N
xiii	Nearest National Parks	None within 10 km Radius	None within 10 km Radius
xiv	Nearest Villages	Nakti Khapri - 1.0 km (NNE)	Nakti Khapri : 200m (NE)
xv	School	1. HSS School : 2.0 Km (NW) Century Cement Senior 2. Secondary School : 2.5 Km (NNW) 3. Aditya Vidya Mandir School : 3.5 Km (NW) 4. Aadarsh Gov. Higher Secondary School : 2.5 Km (W) 5. Government Middle School : 3.5 Km (SW) 6. Higher Secondary School Chhatoud : 5.0 Km (NE) 7. Red Rose public School Tandwa : 5.0 Km (NW) 8. J. B. International School : 6.0 Km (NNE)	1. HSS School : 1.5 Km (NW) 2. Century Cement Senior Secondary School : 2.0 Km (NNW) 3. Aditya Vidya Mandir School : 3.0 Km (NW) 4. Aadarsh Gov. Higher Secondary School : 2.5 Km (W) 5. Government Middle School : 3.5 Km (SW) 6. Higher Secondary School Chhatoud : 4.5 Km (NE) 7. Red Rose public School Tandwa : 5.0 Km (NW) 8. J. B. International School : 5.5 Km (NNE)

xvi	Hospitals	1. Shree Sai Paikra Hospital : 7.5 Km (N) 2. Government Hospital Tilda : 8.0 Km (N) 3. Evangelical Mission Hospital : 8.5 Km (NNW) 4. Khushi Hospital : 9.0 Km (NNE) 5. Jyoti Hospital : 10.0 Km (NNE)	1. Shree Sai Paikra Hospital : 7.0 Km (N) 2. Government Hospital Tilda : 7.5 Km (N) 3. Evangelical Mission Hospital : 8.0 Km (NNW) 4. Khushi Hospital : 8.5 Km (NNE) 5. Jyoti Hospital : 9.0 Km (NNE)
xvii	Nearest Town	Raipur- 30 km-SW	Raipur- 30.5 km-SSW
xviii	Nearest Air Port	Raipur Airport 31.5 km – SSW	Raipur Airport: 31.9 Km (SSW)
xix	Nearest Forest	None within 10km radius	
xx	Historical places	None within 10km radius	

2.0 PROJECT DESCRIPTION

1) Shri Bajrang Power and Ispat Limited (SBPIL)

Shri Bajrang Power and Ispat Limited (SBPIL) proposed to install following units

1) Iron ore beneficiation Plant- 2.0 MTPA
2) Pelletisation Plant with Coal Gasifier (2 X 17000 Nm^3/Hr)- 1.40 MTPA
3) Sinter Plant(1X90 M^2)- 1.0 MTPA
4) Coke Oven- 0.5 MTPA Coke
5) Blast Furnace(2x550 M^3)- 1.16 MTPA Molten Metal
6) Ferro Alloys (FeMn /SiMn / FeCr With AOD Converter2X 9 MVA) -0.042 MTPA
7) Titanium Slag (2X 12 MVA Submerged Arc Furnace)- 36,000 TPA (2x18,000 TPA)
8) Power Generation-85 MW {30MW AFBC/CFBC and WHRB 55MW }
9) Oxygen Plant - 250 TPD
10) Fly Ash Brick plant-2,00,00,000 Bricks/Annum
11) Railway Sliding. 3.0 MTPA

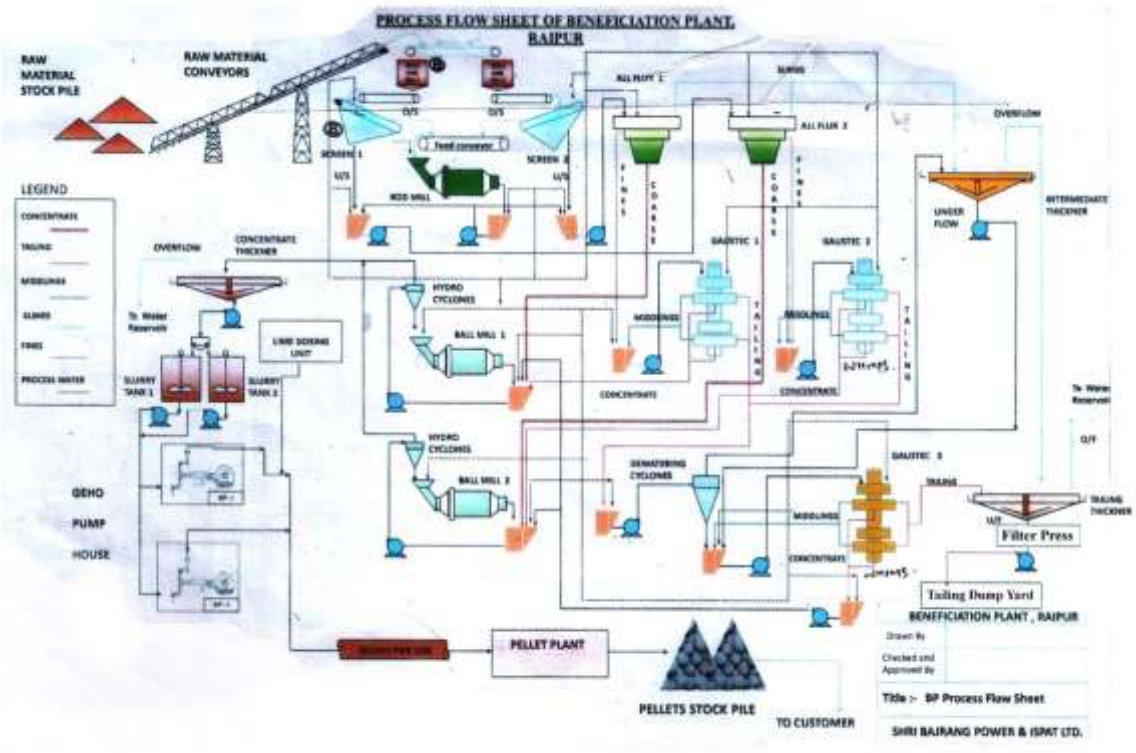
PROCESS DESCRIPTION

Iron Ore Beneficiation Plant

Low grade (56-58% Fe) Iron Ore Fines 2.00 million tons per annum shall be beneficiated to produce sized fractions of different sizes at +62% Fe

The Beneficiation plant process consists of:

- Primary wet Screening
- Jigging
- Grinding
- Hydro cyclone
- Wet high intensity magnetic separation, and
- Thickener for tailing and tailing disposal system

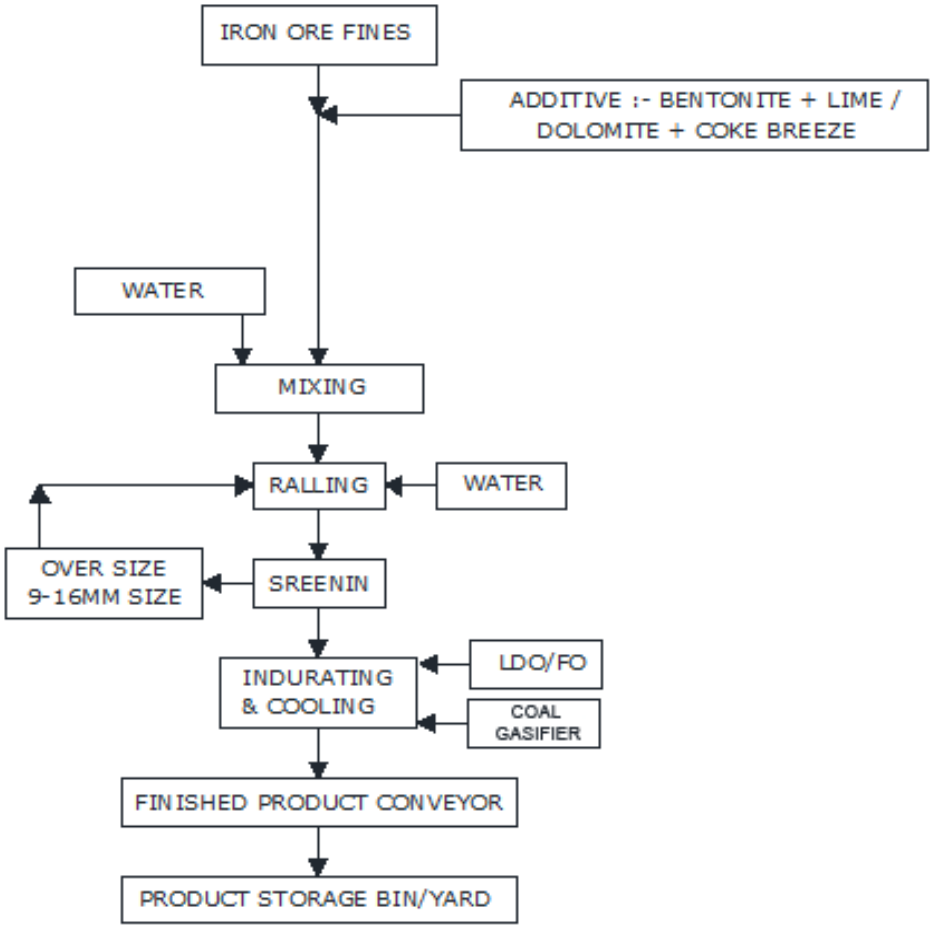


Pellet Plant

The Pelletization process consists of forming green balls out of a very finely ground mixture of Iron ore fines, Limestone, coke and a binder like bentonite. These balls are then fired in an indurating furnace to get hardened balls called pellets. The hot air from kiln and cooler will be used in the travelling grate utilizing and recovering maximum heat from waste gases.

Coal gasifier of 2x17000 Nm^3/hr is proposed which will supply producer gas to the proposed pellet plant. Alternatively, furnace oil will also be used in pellet plant along with producer gas (fuel gas).The flue gases from the induration furnace of pellet plant will pass through high efficiency ESP and will be treated and outlet dust emission will be less than 30 mg/Nm^3 and will be discharged into the atmosphere through a stack of suitable height. Process flow Diagram is given below **Fig.**

SCHEMATIC DIAGRAM FOR THE MANUFACTURING PROCESS OF PELLET PLANT



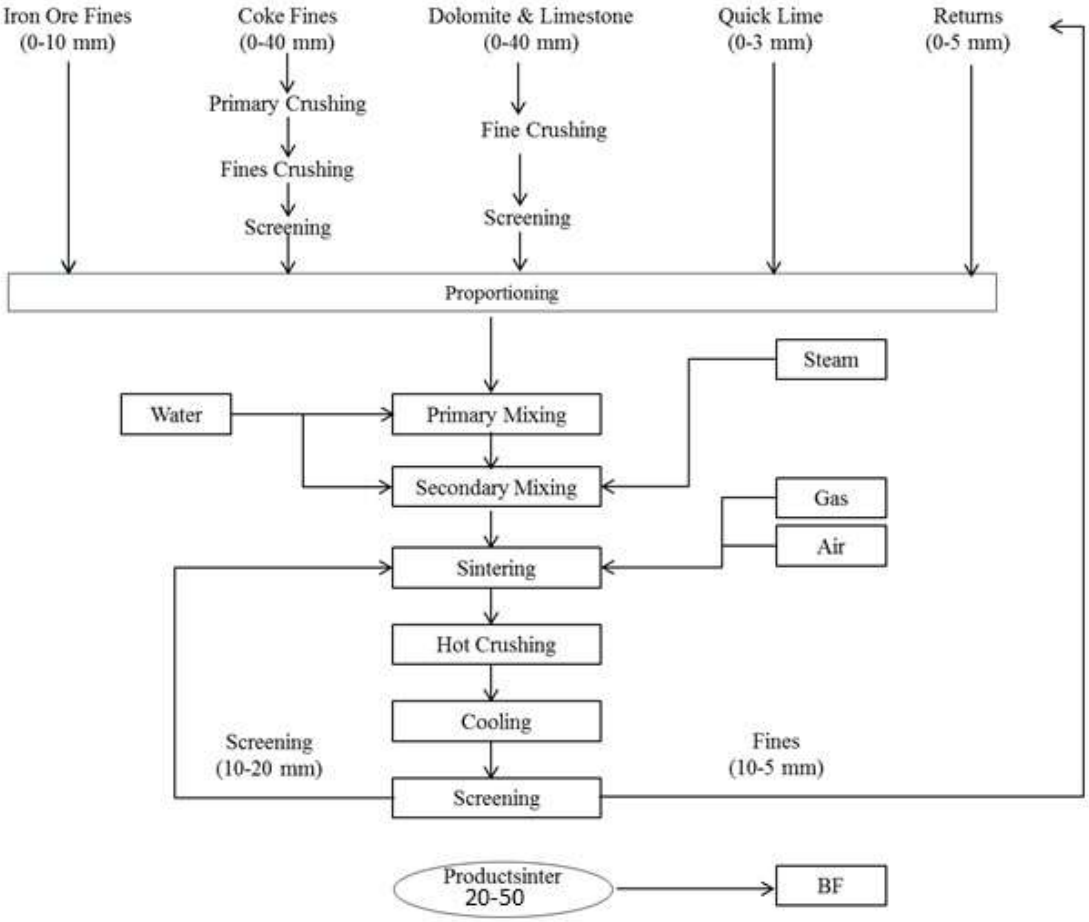
SINTER PLANT (1X90 M^2)

The **process**, called **sintering**, causes the constituent materials to fuse to make a single porous mass with little change in the chemical properties **of** the ingredients. Sinter plants agglomerate iron ore fines (dust) with other fine materials at high temperature, to create a product that can be used in a blast furnace.

Raw Materials

Main Raw Materials for Sinter Plant are;

- Iron Ore Fines
- Fine Coke
- Fluxes (Limestone, Dolomite & Burnt Lime)
- Mill Scale
- BF Flue Dust



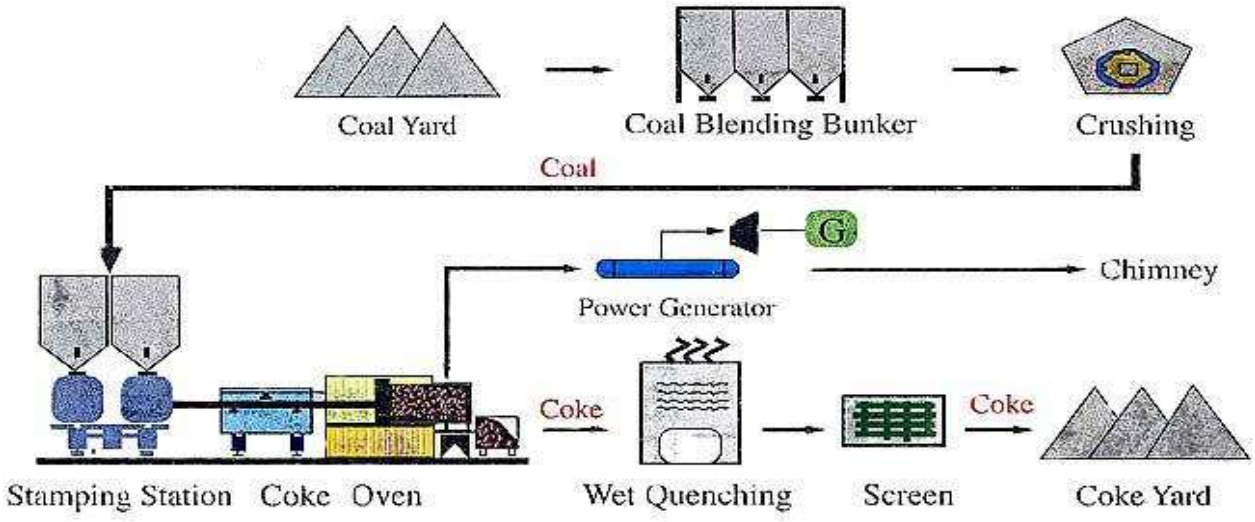
Coke Oven Plants

CONFIGURATION OF COKE OVEN PLANT

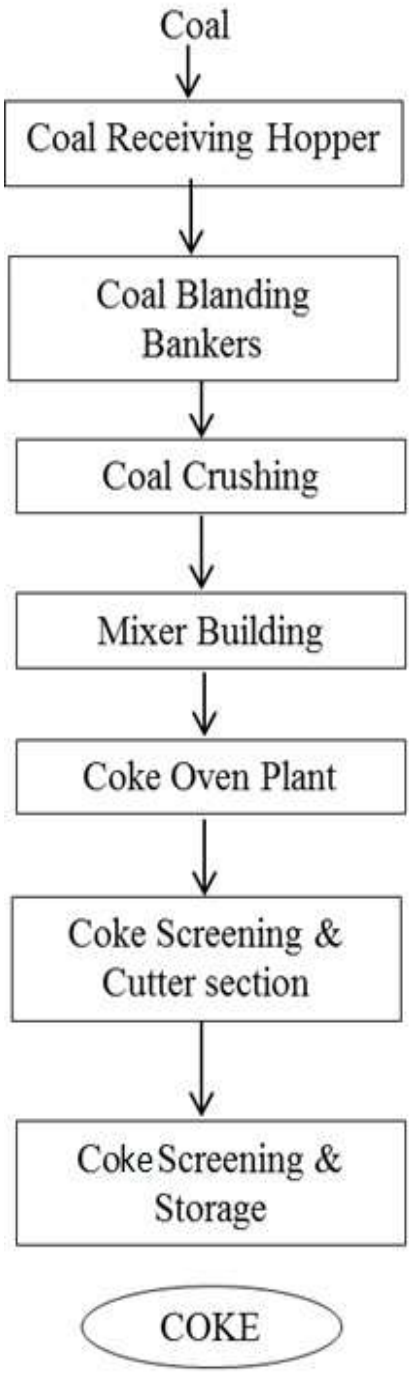
Description	**Unit**	**Configuration**
Coke Oven Batteries	Nos.	5x100000
Working days	days/Annum	330
Working hours	Hours /Day	24
Production	**TPA**	**500,000**

Raw coal will be crushed in a crusher into powdered form and charged in the oven for carbonisation. The volatile matter in raw coal gets released in the form of gas and gets burnt in the oven as well as in the flues. After the completion of the carbonization process, raw coal get converted to coke within 36 to 38 hours. The coke is then pushed out from the oven and quenched by water. Coke will be utilised in MBF and sinter plant.

The hot quenching water is continuously collected into a settling tank & the coke particles are also being carried out upto the settling tank with water. These particles are allowed to be settled below the settling tank and then the water almost free from suspended is allowed to be again used for the purpose of quenching of hot coke mass. Time to time the settled particles are reclaimed and these have the large demand in mini cement plants, briquetting plants etc.

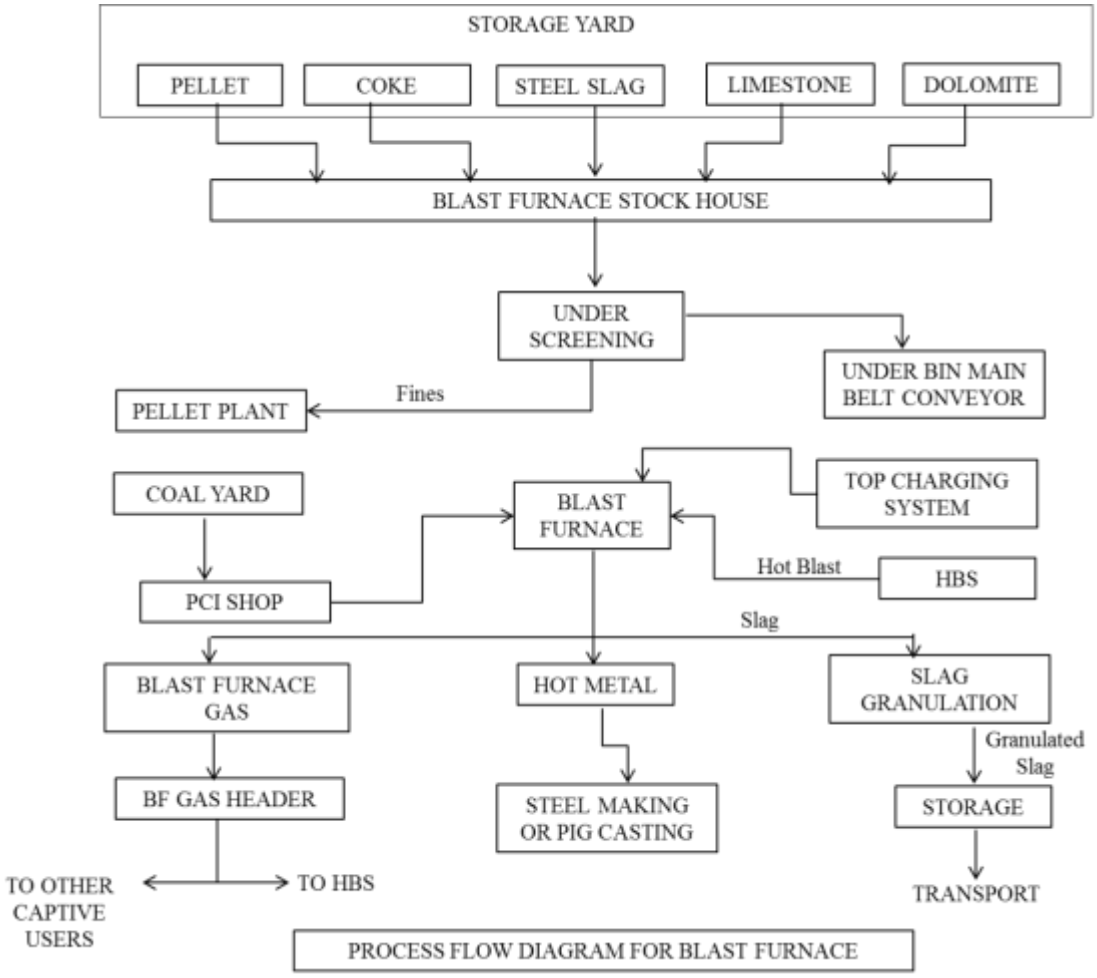


Block Process Flow Diagram for manufacture of Coke



BLAST FURNACE (2x550 M^3)

The purpose of a blast furnace is to chemically reduce and physically convert iron oxides into liquid iron called "hot metal". The blast furnace is a huge, steel lined with refractory brick, where iron ore, coke and limestone are charged into the top, and preheated air is blown from the bottom. The raw materials require 6 to 8 hours to descend to the bottom of the furnace where they become the final product of liquid iron and reject of liquid slag. Both of these are drained from the furnace at regular intervals. The hot air that was blown from the bottom of the furnace ascends to the top in 6 to 8 seconds after going through numerous chemical reactions. The air is blown through tuyers in the bottom portion and liquid iron is tapped from the tap hole. The blast furnace complex will consist of one blast furnace and one pig casting machines along with the requisite support facilities, namely the stock house, coal injection system, cast house, gas cleaning plant, de-dusting facilities, slag granulation unit, etc. BF gas is cleaned in Gas Cleaning Plant and utilized for stove of blast furnace and other plant uses such as reheating furnaces. Unutilised gas shall be flared. Surplus gas is combusted in a boiler to produce steam for the generation of power. Surplus Blast Furnace gas will be supplied through MS pipeline from blast furnace to reheating furnace located at a distance of 300 meter which is a interlink project of **Shri Bajrang Steel Corporate Limited**

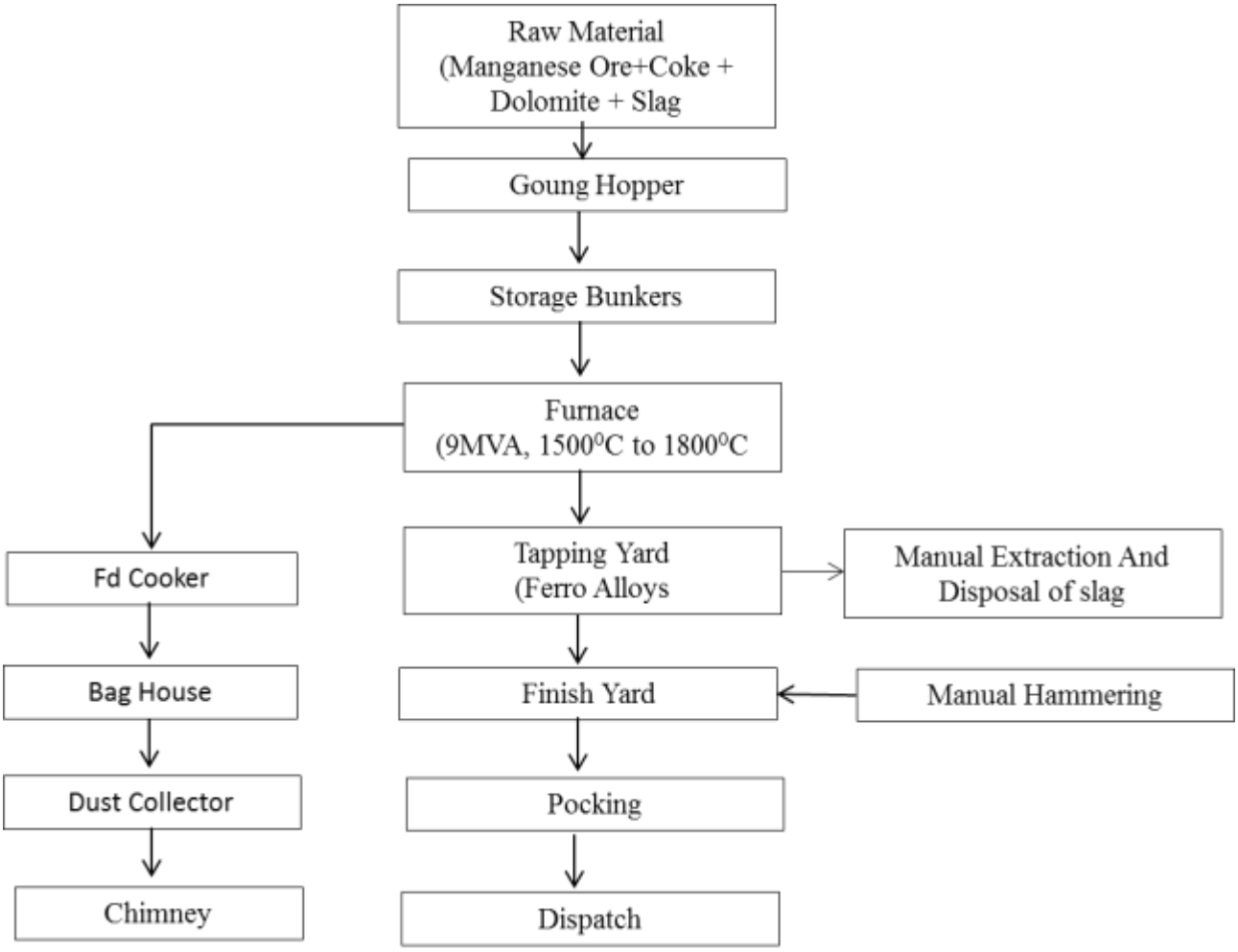


PROCESS FLOW DIAGRAM FOR BLAST FURNACE

Ferro Alloy Plant (Ferro Manganese /Silico Manganese /Ferro Chrome)

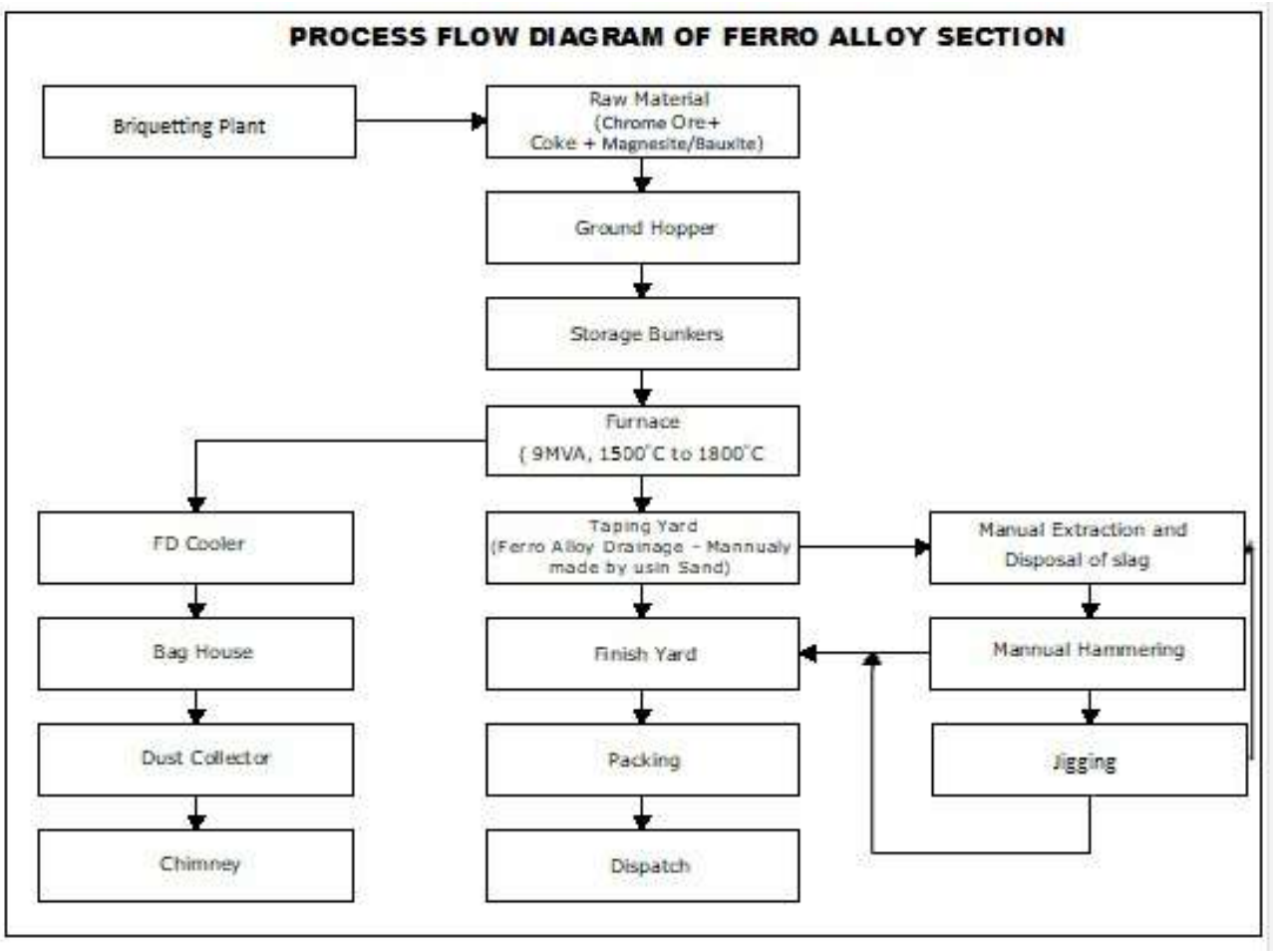
Process Description – Silico Manganese /Ferro Manganese

Ferro/Silico Manganese is produced in submerged arc furnaces by smelting manganese ore, reductant and fluid materials. The raw material in a pre-fix ratio is charged into submerged arc furnace where furnace taps holes at regular intervals. After cooling the tapped materials, the finished product is separated out from slag, made to required sizes, packed and dispatched.



Ferro Chrome

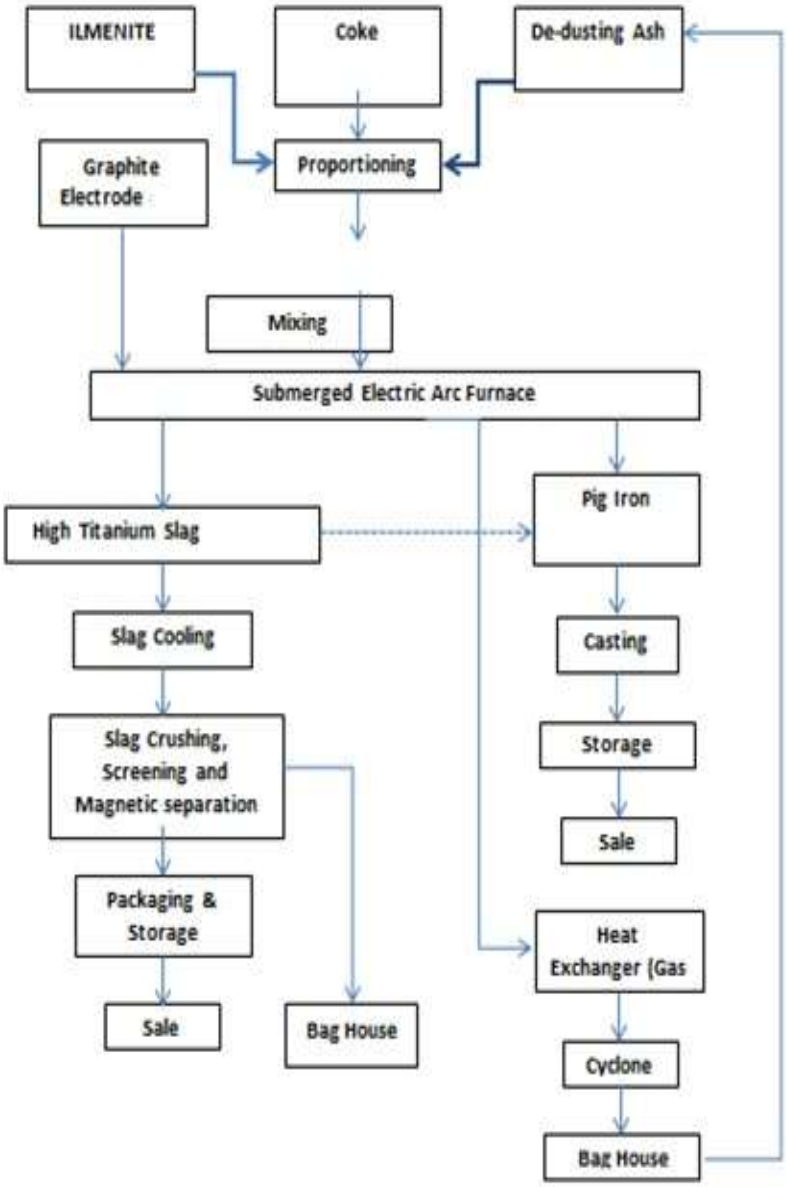
Ferro chrome ore is smelted at about 1500^0C -1800^0C. This achieved by a conventional submerged electric arc furnace. There are three carbon electrodes, which are partially submerged into charge and are supported by the hydraulic cylinders that provide upward and downward movements in order to maintain the desired electrical conditions in the furnace. The body of the furnace is cylindrical in shape and is lined with firebricks, silicon carbide bricks and carbon trampling paste. Tap holes are provided for draining out the molten alloy and slag



Titanium Slag Production

The process description for Titanium Slag comprises the following steps:

a) Receipt of raw materials like Ilmenite and coke and their storage.
b) Batching of raw materials and feeding to electric smelting furnace with tapping of slag and Pig Iron metal at regular intervals.
c) Gas Purification System for exhaust gases from smelting furnace.
d) After tapping, cooling will be done by water spray for disintegration.
e) Crushing/ Screening of Titanium Slag to required size fraction.
f) Packing & dispatch of Titanium Slag.
g) Production of Pig Iron


ILMENITE
Coke
De-dusting Ash
Graphite Electrode
Proportioning
Mixing
Submerged Electric Arc Furnace
High Titanium Slag
Pig Iron
Slag Cooling
Casting
Slag Crushing, Screening and Magnetic separation
Storage
Sale
Packaging & Storage
Heat Exchanger (Gas
Sale
Bag House
Cyclone
Bag House

Captive Power Plant- Waste Heat Recovery Based CPP

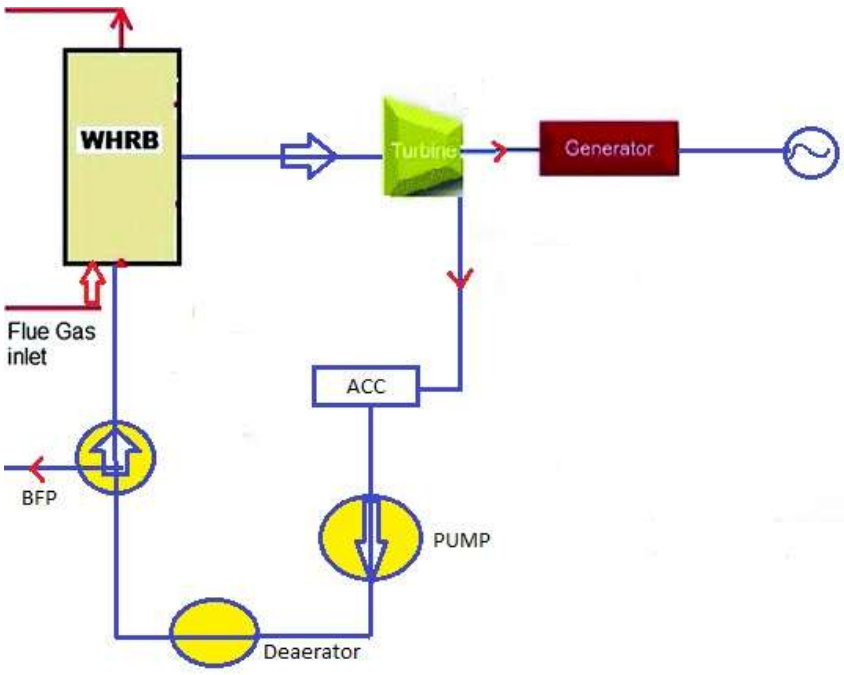
The power requirement for SBPIL steel plant is met by the waste heat recovery based power plant providing a clean environment by restricting the emission of the CO_2 and SO_2 gases in the environment. Flue gas from coke oven plant and Blast Furnace shall be used in WHRB for power generation through waste heat recovery boilers. For waste heat recovery, boiler and steam turbines to be used are given below**.**

Following shows process flow diagram of power generation

CONFIGURATION OF WHRB

Facilities	Total	Boiler
WHRB Connected with Coke oven Plant	35 MW	140 TPH
WHRB Connected with MBFs	2 x 10 MW	2 x 40 TPH
Total Power	**55MW**	**220**

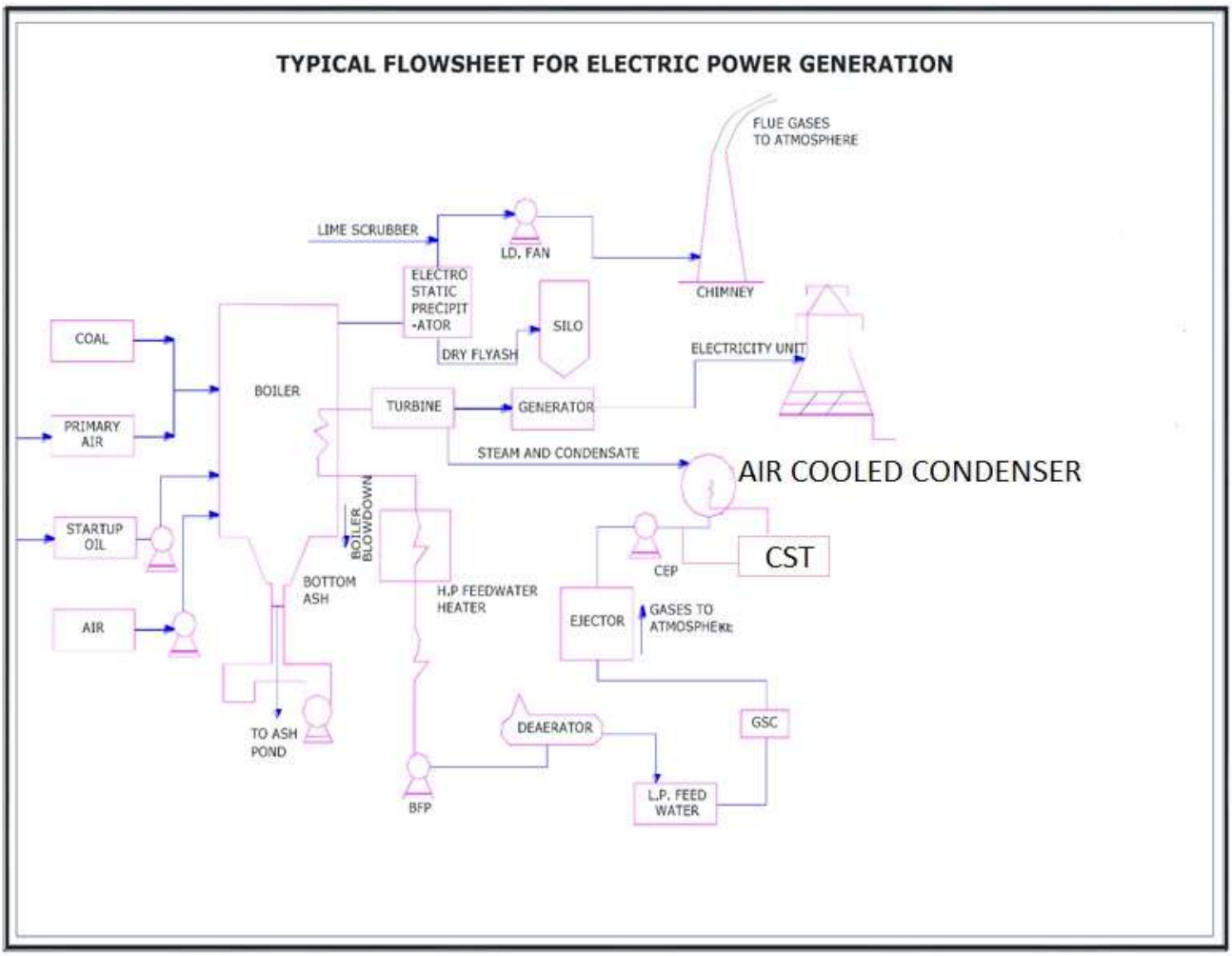
AFBC/CFBC Power generation unit



AFBC/ CFBC: 30 MW power plant based on coal fines, char from DRI kilns and coal has been proposed. Configuration of AFBC/CFBC power plant is given below.

CONFIGURATION OF CPP

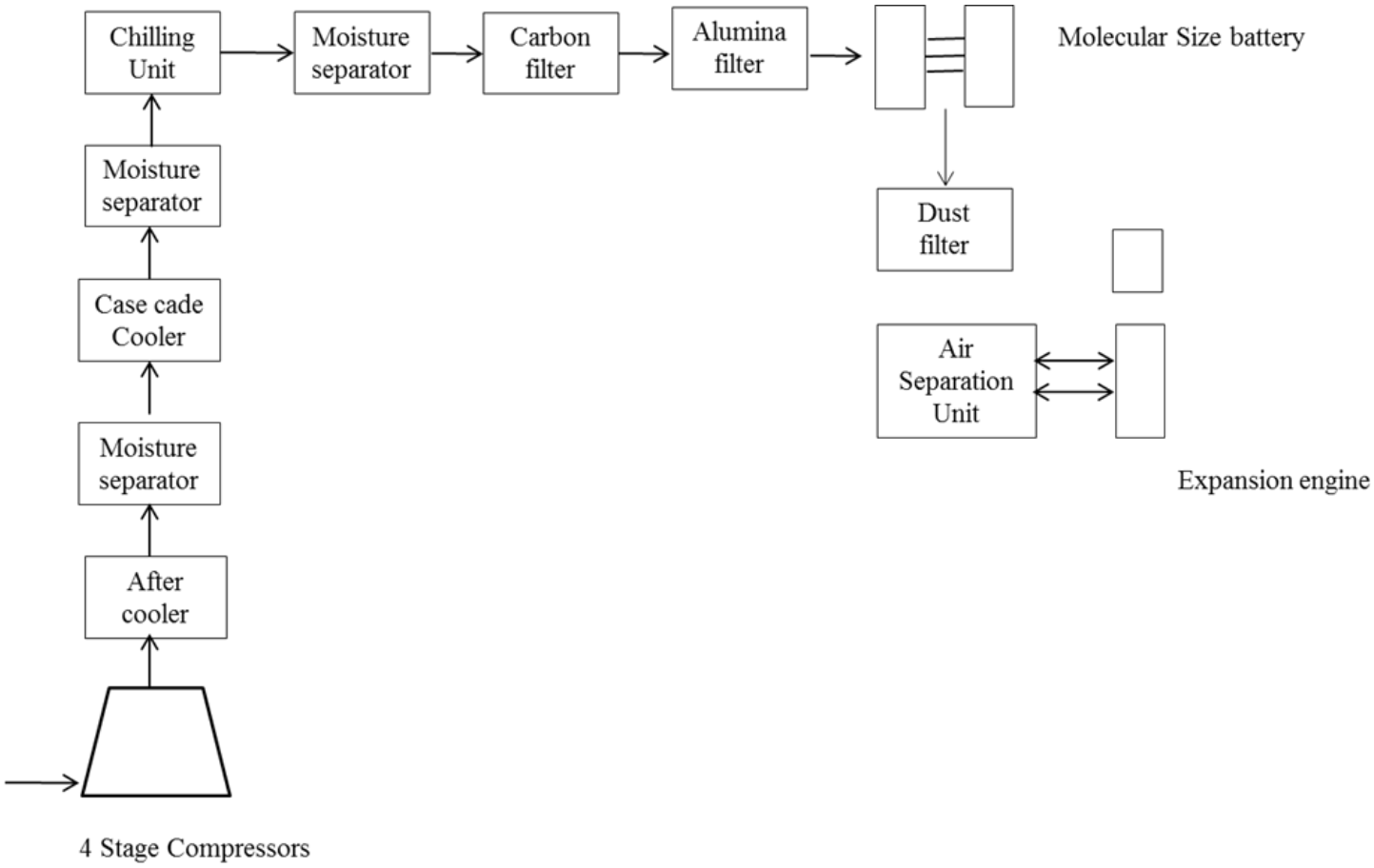
Description	Unit	Quantity
AFBC/CFBC	Nos.	**1**
Boiler Capacity	TPH	**120**
No. of working days	Days/Annum	**330**
No. of working hours	Hours /Day	**24**
Boiler Efficiency	%	**82-85%**
Plant	**Unit**	**Production**
AFBC/CFBC	MW	**30**


TYPICAL FLOWSHEET FOR ELECTRIC POWER GENERATION
FLUE GASES TO ATMOSPHERE
LIME SCRUBBER
I.D. FAN
CHIMNEY
ELECTRO STATIC PRECIPIT -ATOR
SILO
DRY FLYASH
COAL
BOILER
TURBINE
GENERATOR
ELECTRICITY UNIT
PRIMARY AIR
STEAM AND CONDENSATE
AIR COOLED CONDENSER
STARTUP OIL
BOILER BLOWDOWN
CEP
CST
BOTTOM ASH
H.P FEEDWATER HEATER
EJECTOR
GASES TO ATMOSPHERE
AIR
TO ASH POND
DEAERATOR
GSC
BFP
L.P. FEED WATER

Oxygen Plant

The plant to separate Oxygen, Nitrogen, and Argon from natural air by fractional thermal separation, done after liquefying the air in adiabatic process of compression and expansion.

Atmospheric Air mainly consists of Oxygen and Nitrogen gases along with small quantities of water vapor, Carbon Dioxide, Argon, Helium, etc. Oxygen and Nitrogen from the Air are separated due to difference in boiling points by distillation through a fractional column.



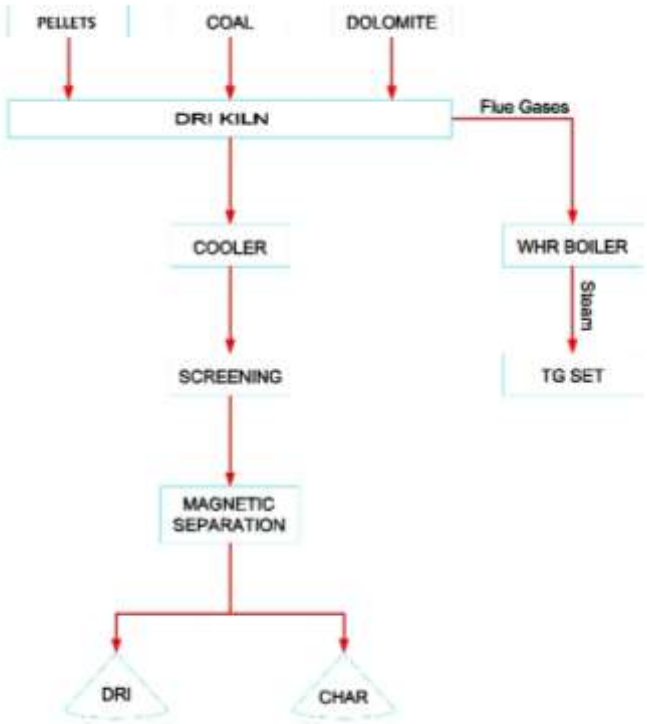
2) M/s Shri Bajrang Steel Corporate Limited

M/s Shri Bajrang Steel Corporate Limited will have the following units of manufacturing:

1) Sponge Iron – 0.33 MTPA
2) Steel Melting Shop (EOF) – 1.1MTPA
3) Hot Strip Mill (Flat Products) – 1.0MTPA
4) Power Generation – 65 MW
5) Oxygen Plant –250 TPD
6) Fly Ash Brick plant -2 Crores Bricks Per Annum

1) Sponge Iron Plant

M/s. Shri Bajrang Steel Corporate Limited is Proposing rotary kiln of (2 x 500) TPD Sponge Iron Plant. DRI or Sponge iron, as it is often referred to, is the substitute for melting scrap (scrap steel) in the steel making process. DRI is the process of converting pellets/Ironore to metallic iron without the smelting process. Process flow diagram, of sponge iron manufacturing are given in following Figure



2) STEEL MELTING SHOP (EOF)

The Steel Melt Shop will comprise of Energy Optimising furnace.

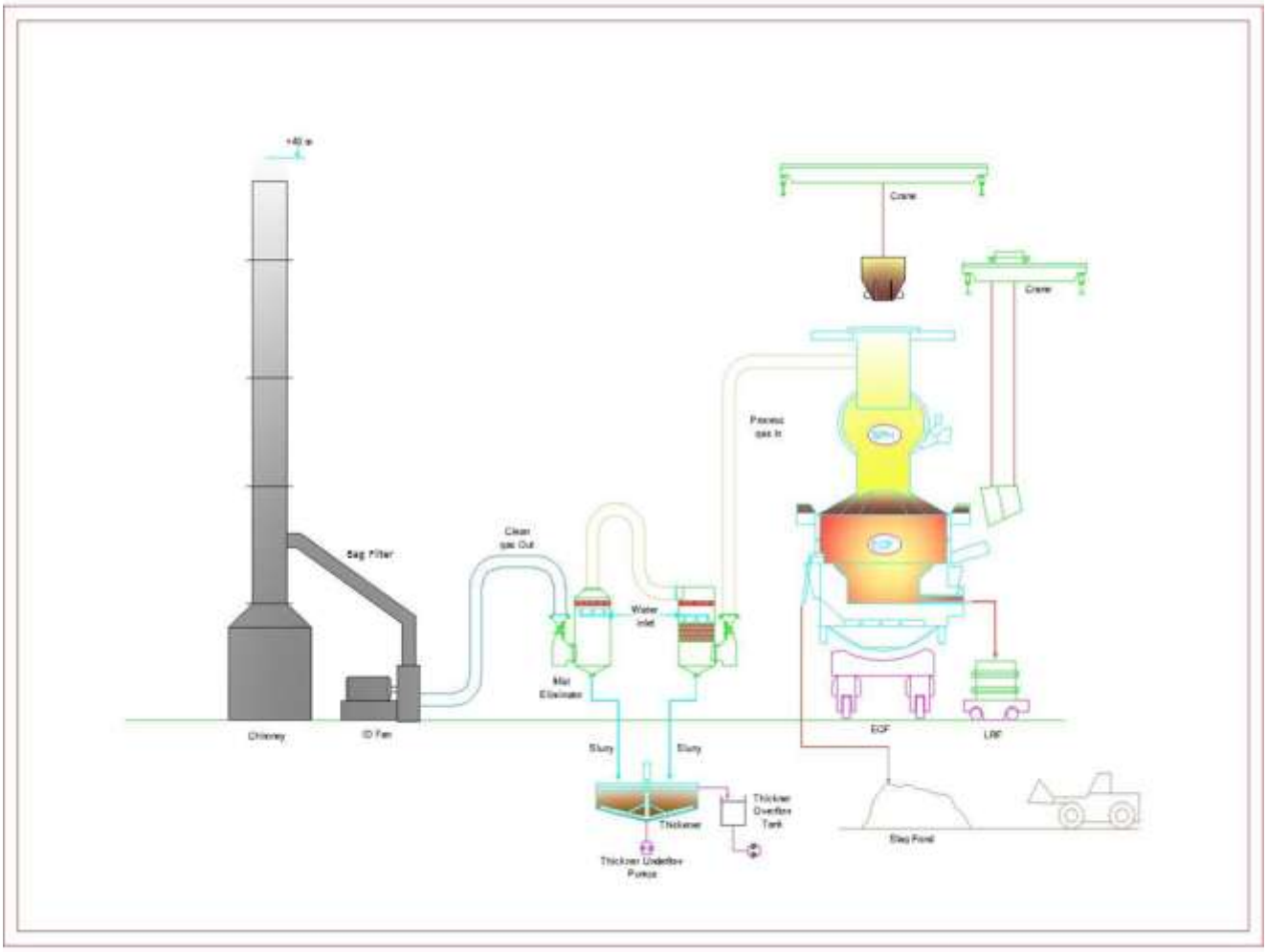
Energy Optimising Furnace- LRF-Slab Caster Route.

The configuration for EOF route is given below.

CONFIGURATION OF SMS VIA EOF ROUTE

Description	**Unit**	**Capacity**
Energy Optimising Furnace	Nos./T	2x65T
Ladle Furnace	Nos.	2x65T
Slab Caster	Nos.	2
Strands	Nos.	2 (2x1 No.)
Working days	Days/Annum	330
Working hours	Hours /Day	24
No. of Heats	Heats	24.5
Production Plant	TPA	10,30,930

PROCESS FLOW SHEET OF ENERGY OPTIMISING FURNACE



Slab caster (from EOF)

The Caster is complete with ladle stand, mould assembly, Strand guide segments and supports withdrawal and straightening system, mould cooling system, Cut- off equipment incl. length measuring device, marking machine etc.

Hot Strip Mill (Flat Products)

One Rolling Line, i.e. Hot Strip Mill Rolling is proposed downstream of SMS. Brief specifications of the proposed mill is presented below.

i) Reheating Furnace

Purpose	:	To reheat the cold Slabs generated from the caster and from outside source
Number	:	Two
Capacity	:	75 t/hr each
Type	:	Top & Bottom fired pusher type
Charging temperature	:	Ambient
Discharge Temperature	:	1220°C max.
Fuel	:	Blast Furnace gas/ Furnace oil(Alternate fuel)

The fuel used in the Reheating Furnace will be surplus BF Gas of CV ~750 Kcal/Nm^3 or Furnace Oil. It is assumed 85% of the Slabs will be Hot Rolled i.e. the Slabs will be directly fed to the Reheating Furnace from Slab Caster and 15% will be cold charged in the Reheating Furnace

ii) Hot Strip Mill:

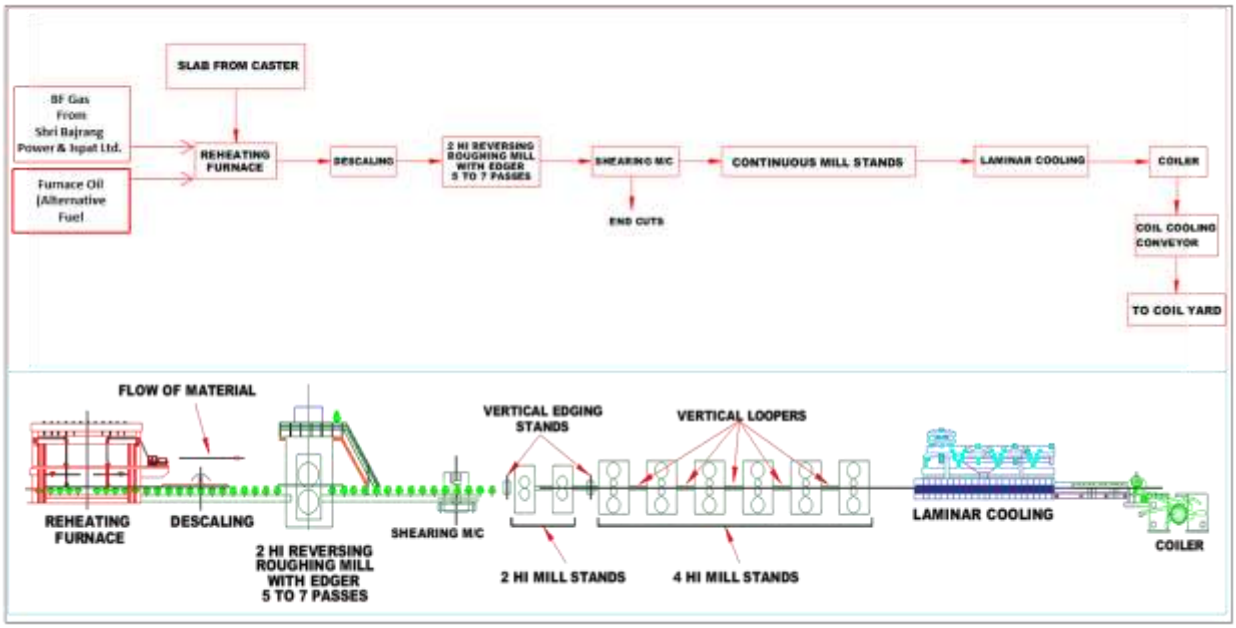
Mill Parameters: Raw Materials

Main Raw Materials for Hot Strip Mill are;

Slabs from Slab Caster

Process Description

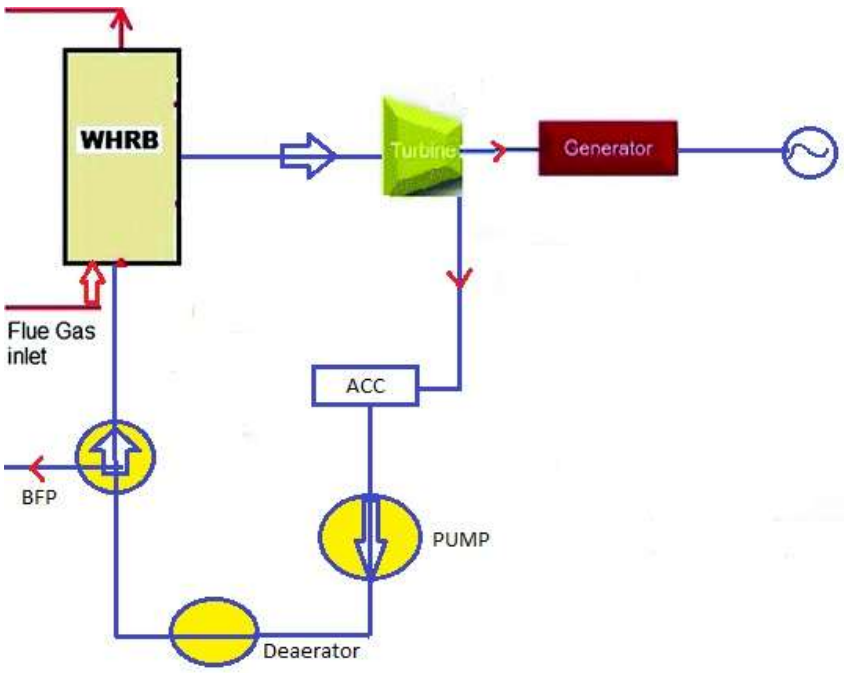
Slab is lifted to the charging roller table by crane of raw stock bay, and the charging roller table transfers the slab to weighing roller table, upto a disappearing stop. The Slab after weighment is transferred to entry roller table of Reheating Furnace.



Block Process Flow Diagram for manufacture of Rolled Products

Captive Power Plant- Waste Heat Recovery CPP

The power requirement for SBSCL steel plant is met by the waste heat recovery based power plant providing a clean environment by restricting the emission of the CO_2 and SO_2 gases in the environment. The DRI gas, as it comes out after burning chamber, contains sufficient quantity of Heat-Energy (if it's not properly harnessed will go to waste and will contribute to Atmospheric Pollution). 500 TPD DRI Kiln for sponge iron production emits normally around 1,20,000 Nm^3/hour of hot gas at a temperature of 950^0C -1000^0C .

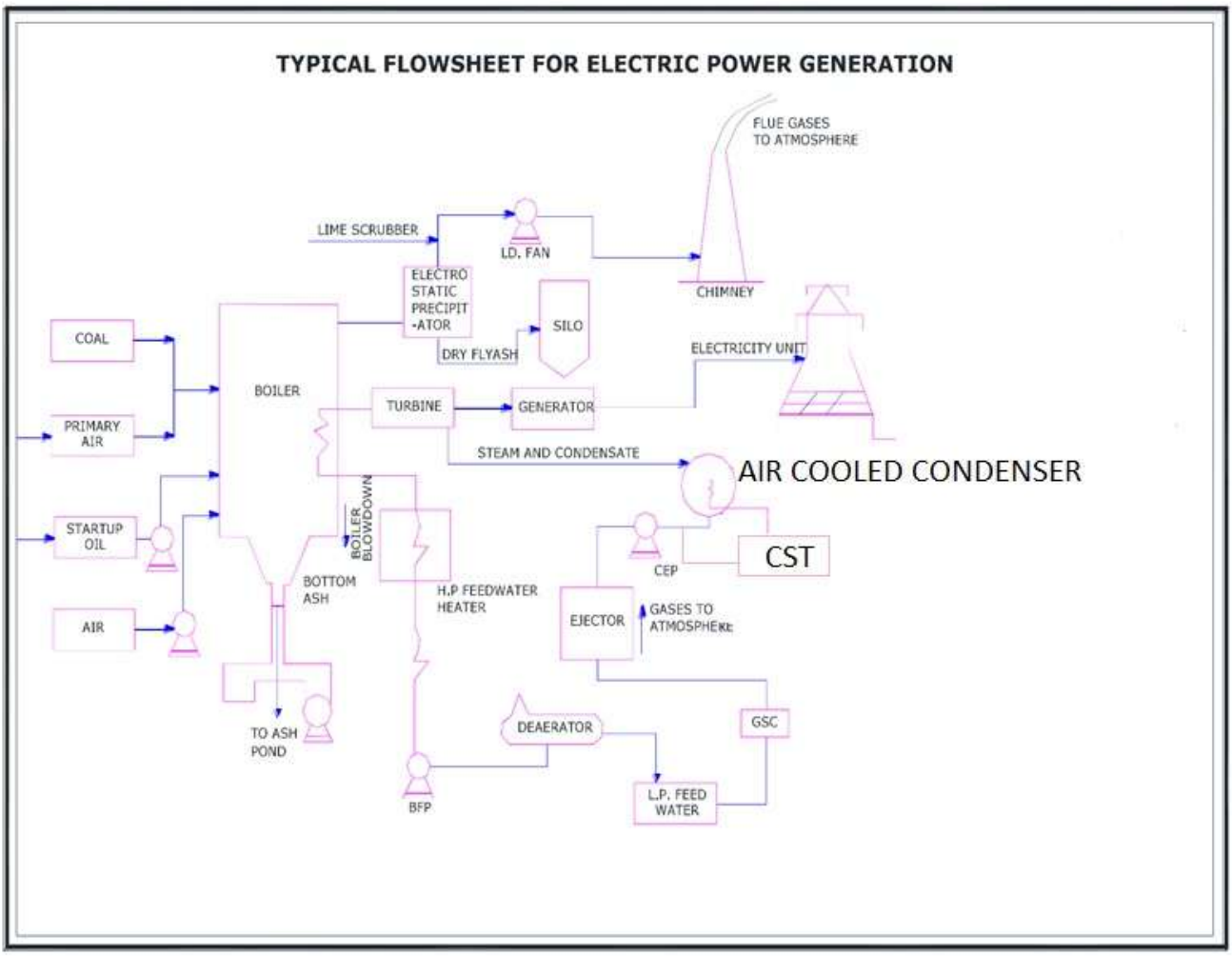


AFBC/CFBC Power generation unit

AFBC/ CFBC: 45 MW power plant based on coal fines, char from DRI kilns and coal has been proposed. Configuration of AFBC/CFBC power plant is given below.

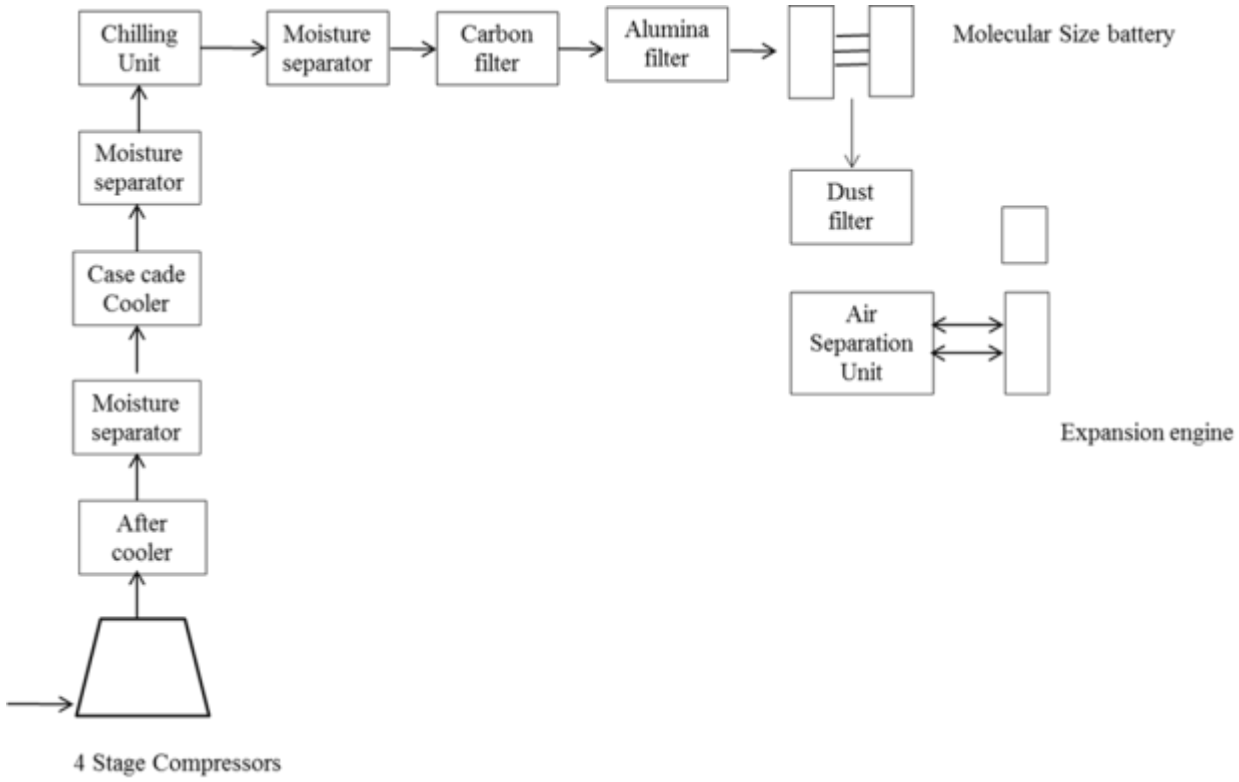
CONFIGURATION OF CPP

Description	Unit	Quantity
AFBC/CFBC	Nos.	**1**
Boiler Capacity	TPH	**180**
No. of working days	Days/Annum	**330**
No. of working hours	Hours /Day	**24**
Boiler Efficiency	%	**82-85%**
Plant	**Unit**	**Production**
AFBC/CFBC	MW	**45**


TYPICAL FLOWSHEET FOR ELECTRIC POWER GENERATION
FLUE GASES TO ATMOSPHERE
LIME SCRUBBER
I.D. FAN
CHIMNEY
ELECTRO STATIC PRECIPIT -ATOR
SILO
COAL
DRY FLYASH
ELECTRICITY UNIT
BOILER
TURBINE
GENERATOR
PRIMARY AIR
STEAM AND CONDENSATE
AIR COOLED CONDENSER
BOILER BLOWDOWN
STARTUP OIL
CEP
CST
BOTTOM ASH
H.P FEEDWATER HEATER
EJECTOR
GASES TO ATMOSPHERE
AIR
TO ASH POND
DEAERATOR
GSC
BFP
L.P. FEED WATER

Oxygen Plant

The plant to separate Oxygen, Nitrogen, and Argon from natural air by fractional thermal separation, done after liquefying the air in adiabatic process of compression and expansion. Atmospheric Air mainly consists of Oxygen and Nitrogen gases along with small quantities of water vapor, Carbon Dioxide, Argon, Helium, etc. Oxygen and Nitrogen from the Air are separated due to difference in boiling points by distillation through a fractional column.



3.0 DESCRIPTION OF THE ENVIRONMENT

Baseline Environmental status in and around the proposed activities indicates the existing quality of Air, Noise, Water, Soil and Socio-economic environment. The baseline environmental quality was assessed for the study period from 1st March to 26th May 2021 within 10 km radial distance from the project site. One month additional data at project site of **Shri Bajrang Steel Corporate Limited was collected from 15th May 2021 to 15th June 2021**. The schedule of environmental monitoring programme is presented in following Table

Environmental Component	Monitoring period	Number of sampling Stations	Parameters
Meteorology	1st March 2021 to 26th May 2021	01	Temperature, Relative Humidity, Rainfall, Wind Speed, Wind direction
Air Quality	1st March 2021 to 26th May 2021and Additional one month data from 15th may to 15th June 2021 At project site of **Shri Bajrang Steel Corporate Limited** (SBSCL)	09	PM_{10}, $PM_{2.5}$, SO_2, NO_X, Co, Ozone, NH_3, benzene, B (a)P and Heavy metals (As, Pb and Ni)
Water Quality	April 2021	Surface Water: 05 Ground Water: 08	IS-10500:2012 and IS-2490:1982
Noise	April 2021 and one Additional at project site of **Shri Bajrang Steel Corporate Limited** (SBSCL) (May 2021)	09	L_d, L_n
Soil	April 2021	08	Physical & Chemical parameters of Indian Standards (IS 2720)

Results & Discussion

Ambient Air Monitoring was carried out at 9 locations. One location at proposed project site of Shri Bajrang Power & Ispat Limited and one location at proposed project site Shri Bajrang Steel Corporate Limited. Other 7 locations were selected within 10 km radius from the project site.

These levels were compared with the prevailing environmental quality standards prescribed by Central Pollution Control Board (CPCB) for Industrial, Residential, Rural and other area.

Among all locations, PM_{10} concentration is vary between 24.0 to 88.0 µg/m^3, $PM_{2.5}$ concentration is vary between 16.0 to 46.0 µg/m^3 , SO_2 concentration is vary between 6.0 to 22.0 µg/m^3 NOx concentration is vary between 16.0 to 36.0 µg/m^3 All concentration are well within stipulated 24 hours average limit, 100 µg/m^3 as prescribed for industrial, residential, rural and other areas as in revised NAAQ Standards from MoEF& CC.

Water Environment

The water quality data was generated in April 2021 The water quality monitoring stations were selected with a view to represent the surface and ground water sources in and around 10 kilometer radius of the study area of proposed Project site. Sampling stations for water samples were selected taking all water sources into account, as per MOEF norms. A total number of 13 including five surface water & eight ground water samples were collected and analyzed.

The result shows that in all the ground water samples most of the parameters are within the respective acceptable limit of IS: 10500 except for the total dissolved solids and total alkalinity. The total dissolved solids and total alkalinity levels are more than the acceptable limits but within the desirable limit.

The surface water quality was compared with CPCB norm for surface water, The water quality from all sampling locations are within the respective acceptable limit and may be used for drinking purpose only after treatment.

Noise Environment

Noise level monitoring was performed in April 2021. Noise level monitoring was carried out continuously for 24-hours with one hour interval starting at 0600 hrs to 0500 hrs next day. The noise levels were monitored on working days only. It has found that in the proposed plant, noise levels are in the range of 31-67 dB (A) at all nine stations. Maximum levels of noise have recorded in day hours which are natural as our most of activities have done in day hours. Noise levels measured at all nine stations are well within limit of either 55.0 dB(A) for Residential Area or 75.0 dB(A) for Industrial Area as given in MoEF Gazette notification for National Ambient Noise Level Standard.

Land Environment

Samples were collected in April 2021 from all the sources. Total eight samples from different locations. This method is in line with IS: 2720 & Methods of Soil Analysis, Part-1, 2nd edition, 1986 (American Society for Agronomy and Soil Science of America). Samples were collected from two types i.e. agriculture land and waste land. The soil samples were collected and analyses once during study period.

The results indicates that **a**ll the major nutrients were present, namely, nitrogen's presence is very less to better, phosphorus is good in quantity and potassium is very less to average in quantity. The results also show that the soil needs to be replenished with nutrients like nitrogen and potassium.

Biological Environment

During the EB study No Endemic, Rare, Endangered and Threatened (RET) species of flora and fauna were found in the study area. Following recommendations are suggested to protect the biodiversity

- As per recommendations of EAC committee dated 30.03.2021, Kirna Tank shall be protected by constructing a bund wall on southern side and by planting 10 m green belt along boundary.
- Kirna Tank shall be protected by planting 30m green belt on southern side of the plant.
- Greenery and natural habitat shall be developed near Kirna Tank.
- Flowering and fruit bearing plant shall be planted near bank of Kirna tank
- Plant shall be equipped with Air Pollution Control Device.
- No waste water shall be release from production process.

4.0 ANTICIPATED IMPACTS & MITIGATION MEASURES

DURING CONSTRUCTION PHASE

Construction phase activity involves erection of equipment and units, infrastructure development like road within the plant area, water storage, electricity, drainage etc. The impact due to project activities during the Construction phase will be of short-term in nature. However all mitigation measures will be undertaken by both companies during construction activity.

DURING OPERATION PHASE

Impact on Air Quality

Emissions released from the stack during operation phase will get dispersed in the atmosphere and finally reach the ground at a specified distance from the sources. From the proposed activities the possible environmental impact on air quality has been envisaged in both projects.

1) Shri Bajrang Power and Ispat Limited (SBPIL)

Shri Bajrang Power and Ispat Limited (SBPIL) consists of Iron ore beneficiation Plant, Pellet Plant, Sinter Plant, Coke Oven, Blast Furnace, Submerged Arc Furnace and Power Plant. Source emission is envisaged from various sources 9 main stacks attached with various air pollution control devices Electrostatic Precipitator (ESP) / Bag Filters in different units of **Shri Bajrang Power and Ispat Limited (SBPIL)** Height of the all the flue gas discharge facilities will be designed as per CPCB norms. The dust concentration will be well within the prescribed standard.

2) Shri Bajrang Steel Corporate Limited (SBSCL)

Shri Bajrang Steel Corporate Limited consists of Sponge Iron Plant, Power Plant, and SMS (EOF-LRF-Slab Caster) as well as transportation of men and material. The impacts on air quality due to source of the air pollutant in the proposed facilities have been identified. The total 4 stack of **Shri Bajrang Steel Corporate Limited** (**SBSCL)** of different heights (as per CPCB criteria) will be available for proper dispersion of gaseous pollutants. These gases will be cleaned and discharged through stack, so that the dust concentration will be well within the prescribed standard. Height of the all the flue gas discharge facilities will be designed as per CPCB norms

Raw Material Handling / Transport System

Mitigation Measures

Fugitive emission from SBPIL and SBSCL will be controlled by following measures.

- All Internal roads will be paved to prevent the fugitive dust emission due to vehicular movement.
- Speed limit in plant premises will be kept in control.
- All transportation vehicles will carry a valid PUC (Pollution under Control) Certificate.

- Proper traffic management will be undertaken.
- Periodic servicing & maintenance of vehicles will be carried out.
- Dustmasks will be provided to workers coming in direct contact of fugitive emissions.
- Ambient air quality will be regularly monitored, so as to keep a check on the emissions of different pollutants.
- Fugitive emission sources will identified and monitored at regular basis.
- Dust extraction measures with swivel hood, ID fan will be provided at different loading, unloading and transfer points in the raw material handling section.
- All the RCC Black Topped roads will be cleaned by Mechanical Sweeping Machine and Water Sprinkling at regular intervals.
- DRI Fumes and gases in, ESP will be removed by Fume extraction system followed by stack.
- EOF Fumes and gases in bag house will be removed by Fume extraction system followed by stack.
- Adequate dust suppression system in the form of water sprinklers will be provided at raw material yard, solid waste dump site and along the vehicular roads.
- Dedicated roads for vehicles carrying raw materials and products will be developed and frequency of vehicles will be maintained.
- Greenbelt all along the plant boundary covering 33 % of the total plant area will be developed under green belt.

Air Quality: Impact Assessment

The proposed interlinked projects include iron ore beneficiation plant, pellet plant, sinter plant, coke oven, blast furnace, oxygen plant, SAF, and power plant of **Shri Bajrang Power and Ispat Limited (SBPIL)** and sponge iron plant, steel melting shopHot Strip Mill, Oxygen Plant and power plant of **Shri Bajrang Steel Corporate Limited**. The impact on air quality after execution of the proposed interlinked project is taken into consideration.

Baseline Scenario

During the period of baseline air quality monitoring (pre monsoon 2021). Predicted Scenario For prediction of impacts for any proposed project, in general, the emission contributions from the proposed units is added to the existing back ground AAQ concentrations and the resultant

AAQ expected is predicted for the following scenario

A. Scenario I: In first Scenario the proposed units of **Shri Bajrang Power and Ispat Limited (SBPIL)** is taken into consideration.
B. Scenario II: In second Scenario the proposed units of **Shri Bajrang Steel Corporate Ltd (SBSCL)** is taken into consideration.
C. Scenario III: In third Scenario the cumulative effect of the proposed units of **Shri Bajrang Power and Ispat Limited (SBPIL)** and **Shri Bajrang Steel Corporate Ltd (SBSCL)** is taken into consideration.
D. Scenario IV: In fourth scenario the AAQ modelling for accidental release is taken into consideration.

The overall scenario with predicted concentrations over the maximum baseline concentrations is given in EIA report. The results indicate that during operation phase of the proposed project, the cumulative impact of industrialization, with adequate control measures will be within the permissible limits.

Noise Levels

During operation, the major noise generating sources are crushing mill, auto loading section, TG Room, electric motors etc. These sources will be located far off from each other. Under any circumstances the noise level from each of these sources will not exceed 85 dB (A).

Noise levels generated in the project site will be confined to the noise generating plant units hence the impact of noise levels on surroundings will be insignificant

Mitigation Measures

The noise levels stipulated by Central Pollution Control Board at any point of time will not exceed the standards.

- ❖ Encasement of noise generating equipment where otherwise noise cannot be controlled
- ❖ Providing noise proof cabins to operators where remote control for operating noise generating equipment is feasible.
- ❖ In all the design/installation precautions are taken as specified by the manufacturers with respect to noise control will be strictly adhered to;
- ❖ High noise generating sources will be insulated adequately by providing suitable

enclosures;

- Use of lagging with attenuation properties on plant components / installation of sound attenuation panels around the equipment
- Other than the regular maintenance of the various equipment, ear plugs/muffs are recommended for the personnel working close to the noise generating units;
- All the openings like covers, partitions will be designed properly
- Inlet and outlet mufflers will be provided which are easy to design and construct.
- All rotating items will be well lubricated and provided with enclosures as far as possible to reduce noise transmission. Extensive vibration monitoring system will be provided to check and reduce vibrations. Vibration isolators will be provided to reduce vibration and noise wherever possible;
- The insulation will be provided for prevention of loss of heat and personnel safety will also act as noise reducers.
- Plantation Near the Noise generation Plant.

Impact on Water

1) Shri Bajrang Power Ispat Limited (SBPIL)

The total requirement of water for the proposed project will be 3.7 MCM (10267 KLD) which will be sourced from Shivnath river. The water will be drawn from intake well and through pipeline upto plant. In plant there will be proposal of reservoir for storage of 7 days makeup water.

2) Shri Bajrang Steel Corporate Limited (SBSCL)

The total requirement of water for the proposed project 2.7 MCM (7986KLD)and will be sourced from Shivnath river. The water will be drawn from our existing reservoir situated at village Tandwa & Kundru. The separate water meter will be provisioned for measuring the water consumption of the proposed plant.

In both the plant, Water conservation & water recirculation system will be followed and zero discharge norms will be followed. In both plants, Domestic waste water will be treated in Packaged Type STP.

Impact on Terrestrial ecology

There is no National park, Wildlife sanctuary, Biosphere reserves and protected forest within 10 km of the plant area. No schedule- I species were recorded in the core and buffer zone of plant area during the biodiversity assessment. There may be an impact on the biological environment of the area due to operation of plant, if proper care will not be taken:

- Particulate matter emissions and fugitive emissions due to transportation activity & material handling may degrade the soil quality of surrounding environment that may affect the biodiversity of surrounding environment.
- Fugitive emissions (dust) may impact the terrestrial flora. The settlement of dust on the laminar surface of plants can impede the efficiency of photosynthesis and thereby, affect the productivity of plants. In some of the plant, it may also smother the leaf surface blocking stomata, resulting in reduced transpiration.

The present industries in the area has no significant impact on surrounding ecology and biodiversity as following mitigation measures have been / will be adopted:

- Greenbelt development and plantation in and around the plant site.
- Using paved roads for transportation to minimize fugitive emissions.
- Transporting material in truck covered with tarpaulin and storing it under covered facilities.
- Transport vehicles and machinery will be properly maintained and periodically checked for pollution level to reduce noise and gaseous emission in the surrounding environment.
- Regular cleaning of Road and Water Sprinkling on Road & site area.

Solid Waste Generation and Management

Solid Waste Quantity and Disposal for Shri Bajrang Power Ispat Limited (SBPIL)

Solid Waste	Plant	Waste Generated (TPA)	Utilization/Disposal Method
Tailings	Iron Ore Beneficiation	6,00,000	Tailings will be treated in Paste Thickener followed by Filter Press and Paste/Cake will be disposed to tailings dump through internally rubber lined seamless MS pipe and will be given to cement plants for utilization in their cement manufacturing unit/other commercial uses.
Return Sinter Fines	Sinter Plant	1,50,000	Will be reused in Sinter Plant
BF Slag	Blast Furnace	3,71,200	Will be sold to cement plant after granulation
BF Dust	Blast Furnace	23,200	Will be used in sinter plant.
Silico Manganese Slag	Ferro Alloy Plant	46200	Will be used in Brick manufacturing plant and or filling of low lying areas
OR			
Ferro Mn Slag	Ferro Alloy Plant	37800	Will be reused in manufacture of SiMn as it contains high SiO_2 and Manganese.
OR			
Ferro Chrome Slag	Ferro Alloy Plant	42000	Will be processed in Jigging plant for Chrome recovery. After Chrome recovery, the left-over slag will be analysed for Chrome content through TCLP test, if the Chrome content in the slag is within the permissible limits, then it will be used in Brick manufacturing plant and or filling of low lying areas if chrome content exceed limit then it will be send to nearest TSDF facility. Disposal of slag will be in accordance with the permissible norms.
Fly Ash	Power Plant	1,07,870	Will be used as raw material for brick/cement manufacturing plant

Solid Waste Quantity and Disposal for Shri Bajrang Steel Corporate Limited

Solid Waste	Plant	Waste Generated (TPA)	Utilization /disposal method
ESP Dust (Fly Ash)	Sponge iron Plant	84,150	Will be used as raw material for brick manufacturing plant/cement plants
Slag	SMS(EOF)	1,05,196	Will be used in Land Filling & Road Making.
Mill Scale	Hot Strip Mill	13,466	Will be used in Ferro Alloys Plant of interlinked project.
Edge cutting/ scrap	Slab Caster/Hot strip Mill	27,982	Will be used as a raw material for SMS
Char / Dolochar	DRI	49,500	Will be used in Power Plant (45 MW)
Ferrous Dust	SMS (EOF)	21,040	Will be used in Ferro Alloys Plant of interlinked project
Ash	Power Plant	1,52300	Will be used in Cement Plant/ Brick plant (In house)

Impact on Socio-Economic Environment

The total manpower requirements for the proposed interlinked project will be about 5000 in the operation phase in both projects. All attempts will be made to employee suitable locally available skilled personnel from the study area. In case of non-availability of skilled persons, people will be taken from outside the study area.

The local persons will be given preference in employment as per the qualification and technical competencies. In order to mitigate the adverse impacts likely to arise in the proposed project activities and also to minimize the apprehensions to the local people, it is necessary to formulate an affective EMP for smooth initiation and functioning of the project. The suggestions are given below:

- Communication with the local people will be established on regular basis by project authority to provide an opportunity for local youth.
- Project authorities will undertake regular environmental awareness program on environmental management
- Job opportunities are the most demanding factor, the local people as per their education will be employed.

- ❖ For social welfare activities to be undertaken by the project authorities, collaboration should be sought with the local administration, gram panchayat, block development office etc for better coordination.

The overall impact on the socio economic environment will be significant.

5.0 Environmental Monitoring Programme

Environmental monitoring will be conducted separately by **Shri Bajrang Power and Ispat Limited (SBPIL)** and Shri **Bajrang Steel Corporate Limited (SBSCL)** on regular basis by through MoEF&CC Recognized Laboratory to assess the pollution level in the proposed plant. Therefore, regular monitoring program of the environmental parameters is essential to take into account the environmental pollutant of the study area.

6.0 Additional Studies

1) Social Impact Assessment

A socio economic survey was conducted over selected villages within the project area of 10 km radius from the plant area as there is already different plant and industry is operating. Thus the Project influence area is considered within 5 km of the plant area and also called as project area. The villages that are covered are, Tilda, Jalso, Ninwa, Kirna, Kundru, Nakti Khapri, and Khambariya. Out of these villages Tilda is the largest village with many industries and mines surrounding it on all. The impact on socio economic of surrounding area will be positive, as Steel Plant will directly and indirectly employ both skilled and un-skilled labourers. The project will employ manpower from Chhattisgarh which constitute more than 80% of the total workforce. Preference will be given to the local resident of the area for employment. Job opportunities with SBPIL & SBSCL or employment with contracting agencies and through other sources. There will be preferences in allotment of shops/ kiosks, award of petty contracts, Vehicle hiring, Vendor permit or any other opportunity deemed fit by the project. Any person would be normally entitled for only one economic opportunity subject to availability and to the extent possible.

2) Risk Assessment Study

As per TOR condition [ii (a) & (b)], Associated risk and disaster management plan is prepared for interface risk of interlinked project of **Shri Bajrang Power and Ispat Limited** and **Shri Bajrang Steel Corporation Limited**. Both the company director are decided to

prepared and signed mutual agreement to fight , rescue and overcome the impact of any natural, manmade, accidental disaster cause in the interface during transportation or operation process. Both the companies decided to form a separate HSE monitoring team to work on potential interface risk and accident.

7.0 Project Benefits

Shri Bajrang Power & Ispat Limited (SBPIL) and Shri Bajrang Steel Corporate Limited (SBSCL) is equally conscious for the all-round socio-economic development and is committed to raise the quality of life and social well-being of communities where it operates. Its CER initiatives will be prioritized on local needs, which focus on Health, Education and Environment Conservation.

The **Shri Bajrang Power & Ispat Limited (SBPIL) and Shri Bajrang Steel Corporate Limited (SBSCL)** will generate direct and indirect employment for the local people in the study area. The local economy will receive positive impact and a boost due to employee spending capacity and services generated by the proposed project. The overall effect will help in improving the standard of living of surrounding area viz. better education, improved health and sanitation facilities, etc. This is a major positive benefit, which will be responsible for the sustainable development of the surrounding area.

8.0 Environmental Management Plan

An environmental monitoring and control cell will be established separately for both the companies. The Environmental Cell will function under the control of the Director and General Manager along with the EHS team of the company to monitor the environmental measures.

Environment Cell of both the companies will be dedicated for the protection of environment and the community and also to practice best environmental management practices, regular maintenance and consistent operation of pollution control systems, recycling of solid wastes and adoption of cleaner and environment friendly technologies by following steps

1) Shri Bajrang Power & Ispat Limited (SBPIL)

- The low-grade iron ore fines will be upgraded by beneficiation process and utilized in Iron Ore Pellet Plant.

- Surplus BF gas will be transferred through MS pipeline to reheating furnace of M/s Shri Bajrang Steel Corporate Ltd. adjacent to SBPIL.
- The fly ash from the various units will be utilized in fly ash brick manufacturing
- Implementation of Rain water harvesting system which improves the water table
- Environmental Monitoring (Third party monitoring) of the plant and surrounding area
- Regular monitoring/inspection of Air pollution control equipment
- Ensuring optimum usage of water
- Control on Fire hazards and accidents
- Health & Safety of workers
- Maintenance of greenbelt and plantation
- Submission of six monthly compliance report to CECB
- Record keeping and reporting of performance is an important management tool for ensuring smooth implementation of an EMP
- Conducting regular environmental audits by SBPIL

2) Shri Bajrang Steel Corporate Limited (SBSCL)

- Waste generated from the Sponge Iron Plant i.e. Dolachar will be utilized in Power Plant along with coal hence reducing the required quantity of coal i.e. minimizing the use of fossil fuel.
- The fly ash from the various units will be utilized in fly ash brick manufacturing
- Implementation of Rain water harvesting system which improves the water table
- Environmental Monitoring (Third party monitoring) of the plant and surrounding area
- Regular monitoring/inspection of Air pollution control equipment
- Ensuring optimum usage of water
- Control on Fire hazards and accidents
- Health & Safety of workers
- Maintenance of greenbelt and plantation
- Submission of six monthly compliance report to CECB
- Record keeping and reporting of performance is an important management tool for ensuring smooth implementation of an EMP
- Conducting regular environmental audits by SBSCL

9.0 GREEN BELT DEVELOPMENT

The plantation helps to capture the fugitive emissions and attenuate the noise apart from improving the aesthetics quality of the region. Avenue plantation within the plant and green belt development will be done.

1) Shri Bajrang Power and Ispat Limited (SBPIL).

Total area of the project area of SBPIL is 276.03 Acres and for SBSCL will be 150 Acres. Out of the total area, green belt development work will be undertaken on area of 33% of the total area of both the projects

2) **Shri Bajrang Steel Corporate Limited** (SBSCL)

About 55027 (@ 1500 per ha.) saplings will be planted in 90.65 acres. Around 33% of the total land will be used for green belt development in **Shri Bajrang Power and Ispat Limited (SBPIL).**

About 29745 (@1500/ha) saplings will be planted 49.0 Acre (33%) land Around 33% of the total land will be used for green belt development in **Shri Bajrang Steel Corporate Limited (SBSCL).**

Year-wise Proposed Plantation Details

S. N.	Year	No of Trees to be planted			
		Shri Bajrang Power and Ispat Limited (SBPIL)	**Shri Bajrang Steel Corporate Limited (SBSCL)**	**Common Name of tree to be planted**	**Scientific Name**
1.	2022-2023	16508	8924	Neem, Jamun	*Azadirachtaindica, Psidiumguyava*
2.	2024-2025	16508	8924	Amaltash, Ashok	*Cassia fistula, Saracaindica*
3.	2025-2026	11005	5949	Gulmohar	*Delonixregia,*
4.	2026-2027	5503	2975	Pipal, sissoo	*Ficusreligiosa, Dalbergiasissoo*
5.	2027-2028	5503	2975	Bargad, Su-babool	*Ficusbengalensis Laucaenealeucocephala*
	*Other species like Peltaform, Kala shirish Casiasamea, Mini Gulmohar, Arjun, Mahogani, Erithrin also included.				
	Total	**55027**	**29745**		

9.0 Conclusion

It can be concluded that there would be negligible impact in the buffer zone due to the proposed project. The project shall contribute to the socio-economic development, strengthening of infrastructural facilities like medical, educational etc. The plant shall be operated keeping "Sustainable Development" of the region in mind.

Further, management is committed to contribute towards improving socio-economic status of the surrounding local community.

Environmental monitoring is a successful tool for the management for implementation of adequate & effective environmental measures. It also helps the management to take mid-course correction, if required based on the environmental monitoring results. Considering the above overwhelming positive impact on the community, there shall be overall development of the area. Therefore, we request for approval of proposal for environmental Clearance.