Executive Summary

Of

Proposed establishment of 2 DRI Kilns of 700 TPD Capacity each for Sponge Iron Production of 4,20,000 TPA, Steel Melting Shop (with 4X20 T Induction Furnace, 1X25 T Ladle Refining Furnace/VD, 9X16 meters Continuous Casting Machine) for production of 2,64,000 TPA Billets/Bloom/N.W. Slabs, Re-Rolling Mill (Direct Rolling 40% +Re-Heating Based 60%) for production of 6,00,000 TPA rolled products (Bars & Rods/Structurals/ HR Strips), 4 Sub Merged Arc Furnace with 6 MVA 15 T AOD for production of Ferro Alloys(38,400 TPA Silico Manganese or 67,200 TPA Pig Iron or 59,520 TPA Ferro Manganese or 21,120 TPA Ferro Silicon), 1,20,000 TPA Iron Ore Concentrate, Rotary Hearth Furnace with Electric Arc Furnace (350 TPD RHF, 9 MVA Electric Arc Furnace/Sub Merged Arc Furnace)for production of 1,15,000 TPA HBI/Pig Iron, 25,00,000 TPA throughput Coal Washery and 56 MW Power Plant (2X18 MW WHRB based and 1X20 MW AFBC), Ore Sinter Plant 1,00,000 TPA and Fly Ash Brick Plant of 1,00,000 Bricks per day

Project by

M/s G.R. Krishna Ferro Alloys Private Limited

At

Plot B-4 MIDC Mul Growth Centre & Others, Village Mul, District Chandrapur, Maharashtra.

Environmental Consultant

Pollution and Ecology Control Services

Accreditation no.: NABET/EIA/2225/RA 0291 Valid up to 16th October 2025

Executive Summary

1.0 Name of the project along with applicable schedule and category as per EIA, 2006

M/s. G.R. Krishna Ferro Alloys Private Limited proposes a project for the installation of 2 DRI Kilns of 700 TPD Capacity each for Sponge Iron Production of 4,20,000 TPA, Steel Melting Shop (with 4X20 T Induction Furnace, 1X25 T Laddle Refining Furnace/VD, 9X16 meters Continuous Casting Machine) for production of 2,64,000 TPA Billets/Bloom/N.W. Slabs, Re-Rolling Mil (Direct Rolling 40% +Re-Heating Based 60%) for production of 6,00,000 TPA rolled products (Bars & Rods/Structurals/ HR Strips), 4 Sub Merged Arc Furnace with 6 MVA , 15 T AOD for production of Ferro Alloys(38,400 TPA Silico Manganese or 67,200 TPA Pig Iron or 59,520 TPA Ferro Manganese or 21,120 TPA Ferro Silicon), 1,20,000 TPA Iron Ore Concentrate, Rotary Hearth Furnace with Electric Arc Furnace (350 TPD RHF, 9 MVA Electric Arc Furnace/Sub Merged Arc Furnace)for production of 1,15,000 TPA HBI/Pig Iron, 25,00,000 TPA throughput Coal Washery and 56 MW Power Plant (2X18 MW WHRB based and 1X20 MW AFBC) Ore Sinter Plant 1,00,000 and Fly Ash Brick Plant of 1,00,000 Bricks per day at Plot no. B-4 MIDC Mul Growth Centre & Others, Village Mul, District Chandrapur, Maharashtra.

The proposed project attracts the provisions of EIA Notification, 2006 and falls under Category "A" of 3 (a), 1(d), 2 (a) and 2(b) in Schedule to the Notification.

As a part of EIA process, proponent has made online application on 6th May, 2023 along with Form-1, copy of pre-feasibility report and other documents. The Ministry vide letter IA-J-11011/292/2010-IA-II(IND-I) dated 18th May, 2023 prescribed Standard ToRs for EIA study.

2.0 Location and accessibility

The proposed project will be located at Plot no. B-4 Growth centre & Others, Village Mul, District Chandrapur, Maharashtra. The total area requirement for the proposed project is 22.7149 ha. This area consists of 20.7750 ha. of MIDC land (Plot no. B-4 MIDC Mul), 0.79 ha. of private land and 1.15 ha. of forest land nearby to MIDC plot no. B-4. A diversion proposal was submitted for 1.15 ha. of forest land (Zudupi Jungle). The

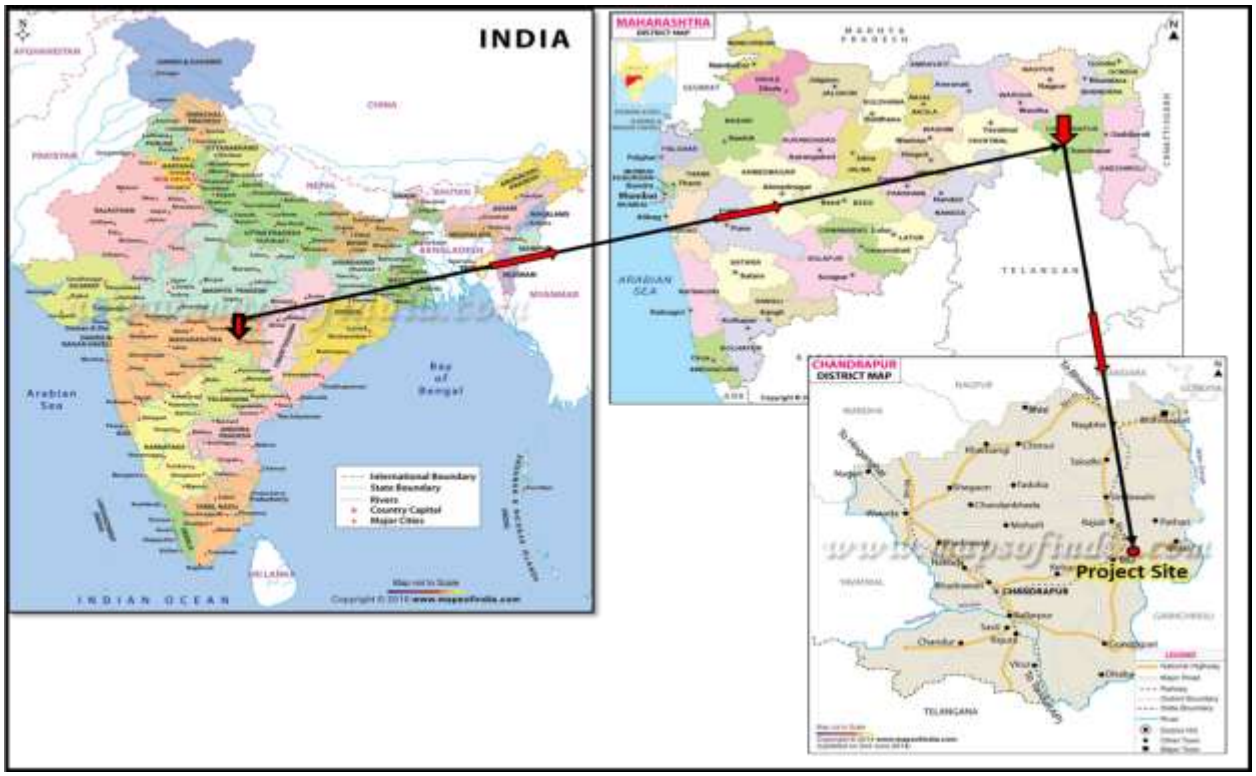
nearest highway is NH-930 at 1.0 Km in South - South East direction. The nearest Airport is Nagpur International Airport 162 km.

The details of environmental setting are given in **Table 1.1** and the location map is given in **Figure 1.1** .

Table: 1.1 Details of the Project Site

S. No	Particulars	Details
1	Project Site	M/s. G. R. Krishna Ferro Alloys Private Limited at Plot No. B-4, Mul Industrial Area, MIDC & Others, Taluka Mul, District Chandrapur.
2	Latitude & Longitude	A. **20° 5'9.24"N 79°42'45.57"E** B. **20° 5'3.12"N 79°42'46.18"E** C. **20° 5'6.16"N 79°42'50.95"E** D. **20° 4'56.67"N 79°42'51.73"E** E. **20° 4'55.67"N 79°42'40.08"E** F. **20° 4'56.22"N 79°42'27.68"E** G. **20° 5'4.13"N 79°42'33.04"E** H. **20° 5'2.25"N 79°42'26.78"E** I. **20° 5'7.38"N 79°42'23.83"E**
3	Survey No.s/ Plot no.	**Industrial Area Land**: Plot no. B-4: 20.7750 ha. (MIDC Area) **Private Land**: Survey No. 301/1 :0.70 ha Survey No. 313 : 0.09 ha **Forest Land**: Survey No. 265 : 0.90 ha Survey No. 266 :0.25 ha Total :22.7149 Ha
4	Elevation above MSL	190 MSL
5	Toposheet	55 P/12, 55 P/16
6	Present land use	Project will be located in notified industrial area.
7	Nearest National Highway/State Highway	NH- 930 : 1.0 Km (SSE) MSH9- : 520 m (W)
8	Nearest Airport/ Air Strip	• Morwa Airport : 53 Km (WSW) • Dr. Babasaheb Ambedkar International Airport Nagpur

		:162 Km (NNW)
9	Nearest Railway Station	Maroda Railway Station :4.8 Km (WNW)
10	Nearest Village	Marhegaon : Adjacent (W)
11	Forest	Rajoli Reserved Forest : 1.8 Km (N) Mul Reserved Forest : 8.7 Km (WSW)
12	Ecologically Sensitive Zones like wild life sanctuaries, national parks and biospheres	The project is located at distances of 1.89 km from the Wildlife Corridor and 4.14 kms from the outer boundary of ESZ of Tadobal Andhari Tiger Reserve (TATR) and 16.20 kms from the protected area of TATR. The ESZ of TATR was notified by Ministry vide notification no. 192. S.O. 3249(E) dated 11.09.2019.
13	Water Bodies	1. Mul River : 1.4 Km (WSW) 2. Human Nadi : 2.9 Km (NW) 3. Pathri Nadi : 3.5 Km (E) 4. Saoli Nadi : 2.2 Km (SSE) 5. Mungejhari Nala : 5.4 Km (NW) 6. Banasyoran Nala : 4.0 Km (NNW) 7. Bheokund Nala : 3.9 Km (N)
14	School	1. Nearest School : 160 m (W) 2. Vidyamandir Convent : 3.5 Km (WSW) 3. Z.P. School Mul : 3.5 Km (WSW) 4. St. Annes High School : 4.0 Km (WSW)
15	Hospital	1. Dr. Bokarey Clinic : 3.5 Km (WSW) 2. Dr. Tagade Clinic Mul : 6.0 Km (SW) 3. Khedi Primary Health Sub Centre : 4.98 Km (ESE)
16	Temple	1. Gajanan Maharaj Temple : 5.4 Km (WSW) 2. Hanuman Temple : 5.0 Km (SW)
17	Industries	1. Greta Energy Ltd. : Adjacent (S) 2. G.R. Krishna Ferro Alloys Pvt. Ltd. : 20 m (NNW) 3. Mahalaxmi Rice Industries : 2.6 Km (SW) 4. Shri Bajrang Agro Industries : 2.7 Km (SW) 5. Rajuri Steels And Alloys India Private Limited : 250 m (SSE)



Source: Maps of India

Figure: 1.1 General Location Map

3.0 Resource Requirements:

Raw Material Requirement:

The details pertaining raw material requirement along with source and mode of transportation is provided in the following table:

S.No.	Input Raw Material	Quantity (TPA)	Sources	Distance from project (in Kms.)	Mode of Transport
1.	Iron Ore	1015600	Surjagarh Mines & Open Market	156-600	By rail/road
2.	Coal	3361992	WCL Mines & Open Market	55-200	By rail/road
3.	Dolomite	50688	Yavatmal & Open Market	150-400	By road
4.	Sponge Iron	232320	Inhouse	-	Conveyor

5.	MS Scrap	21120	Import &Open Market	600-1200	By road
6.	Calcined Lime	2640	Yavatmal & Open Market	150-400	By road
7.	Cast Iron	39600	Chhattisgarh & Odisa	300-600	By road
8.	Silico Manganese	2640	In house	-	Conveyor
9.	Billets	676800	In house + Open Market	-	Conveyor/ By road
10.	Dolochar	91200	In house	-	Conveyor
11.	Rice Husk	18300	Gadchiroli & Chandrapur	100-300	By road
12.	Manganese	215424	MOIL & Open Market	400-800	By road
13.	Coke	55930	Wardha, Chhattisgarh	300-600	By road
14.	Carbon Paste	4118	Chhattisgarh	300	By road
15.	Ferro Slag	7680	In house	-	Conveyor
16.	Quartz	36960	Yavatmal & Open Market	150-400	By road
17.	Charcoal	25344	Open Market	150-400	By road
18.	Mill Scale	28608	In house	-	Conveyor
19.	Limestone	9408	Yavatmal & Open Market	150-400	By road
20.	Flourspar	2352	Open Market	300-600	By road
21.	Iron Ore Sinter	94080	In house	-	Conveyor
22.	HBI (Hot)	115000	In house	-	Conveyor

Water Requirement:

The total water requirement will be 3449 KLD which will be sourced MIDC, Mul & Irrigation Department. M/s G. R. Krishna Ferro Alloys Pvt. Ltd. is committed for ZERO Liquid Discharge; entire wastewater will be treated and reused.

Land Requirement:

The proposed project will be established over an area of 22.71 ha. This area consists of 20.7750 ha. of MIDC land (Plot no. B-4 MIDC Mul), 0.79 ha. of private land and 1.15 ha. of forest land nearby to MIDC plot no. B-4. A diversion proposal was submitted for 1.15 ha. of forest land (Zudupi Jungle)

Man Power Requirement:

The manpower requirement for the operational phase of the project is 1400 -1700 people. In addition, there will be an indirect employment for skilled/ semi-skilled people during project life. All attempts will be made to employ suitable, locally available, skilled personnel from the nearby area. In case of non-availability of skilled persons, people will be employed from outside area.

Power Requirement

Total Power required for the proposed project during operation is 23 MW, which will be sourced from captive power plant. Incase of excess power requirement, same will be met from Maharashtra State Power Transmission Corporation Limited. Power requirement during construction will be met from Maharashtra State Power Transmission Corporation Limited.

4.0 Operational Activity:

The production process of each plant is explained in brief in the following paragraphs:

DRI Plant:

The sponge iron, is the product of reducing iron oxide in the form of iron ore below the melting point of iron and typically in the range of 800–1200 °C. Iron oxide is charged into rotary kiln in the form of pellet, iron ore lumps, or fines along with Coal and Dolomite. The Iron Oxide is reduced to Iron Ore. The coal and dolomite get burnt in the Kiln. The material from the kiln is cooled in the cooler and the same is subjected to magnetic separation to separate sponge iron and Dolochar. The emissions from Kiln are sent to After Burning Chamber for complete burning of CO. The heat from the stack emissions is utilised by Waste Heat Recovery Boiler (WHRB) for production of power. The emissions after utilizing the heat will be sent to ESP and discharged finally to

atmosphere after arresting the dust particles (99.99% efficiency) through stack of height 72 meters.

Steel Melting Shop (Induction Furnace along with Ladle Refining Furnace and Continuous Casting Machine):

Sponge iron, scrap and fluxes will be melted in an induction furnace using electric power. The hot metal from the induction furnace will be sent to ladle refining furnace for further refining, chemistry adjustment, inclusion modifications, etc. CCM will be used to continuously cast the liquid steel in required cross section and in length. It consists of Tundish, Mould, Bow with withdrawal mechanism, straightening mechanism and cooling bed, hydraulic system for withdrawal mechanism, water pumps and cooling towers for water spray on the withdrawn section as well as on the cooling bed.

The Induction Furnace Unit shall be equipped with helmet type swiveling Hood for suction of gases to a suitable Bag Filter through two cyclones. There shall be additional suction hoods mounted on the walls and roof of the Induction Furnace shed to suck up extra fumes and fumes released during tapping operations.

Power Plant:

WHRB Based Power Plant:

Production of sponge iron in DRI kiln generates huge quantities of hot flue gases carrying considerable sensible heat. The energy content of these gases can effectively be used to generate electric power as well as steam for meeting various process requirements.

AFBC Boiler Based Power Plant

The power plant will operate on Dolochar generated in the DRI Kiln. The Dolochar along with other auxiliary fuels such as coal, etc. will be used in the furnace for production of power.

Rolling Mill

The process of shaping metals into semi-finished or finished forms by passing between rollers is called rolling. Rolling is the most widely used metal forming process. It is employed to convert metal billets to simple stock members like bars. In rolling, the metal is plastically deformed by passing it between rollers rotating in opposite direction. There

is negligible increase in width, so that the decrease in thickness results in an increase in length.

Submerged Arc Furnace:

Standard High Carbon Ferro is smelted at about 1700 - 1800^{0}C. A conventional Submerged Arc Electric Furnace achieves this. The three carbon electrodes, partially submerged in the charge, are supported on hydraulic cylinders for upward and downward movements 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 tamping paste. Two tap-holes are pro vided at 120^O. Apart for draining out both the molten alloy and the slag.

During the repair works of one of the tap holes the other will function as standby. The raw materials are thoroughly mixed in the proper proportion before being charged into the furnace. Manual poking rods or stroker car are used for stoking the charge on the furnace top.

As the charge enters the smelting zone, the metal alloy formed by chemical reactions of the oxides and the reluctant, being heavy gradually settles at the bottom. The slag produced by the unreduced metal oxides and the flux, being relatively lighter, floats on the metal alloys surface. At regular intervals the furnace is tapped. The tap hole is opened by Oxygen lancing pipe and after tapping is completed, it is closed by clay plug.

The slag flow the C.I. Pan. The slag being lighter overflows from the C.I. pan and is taken into the sand mould. The alloy cake from C.I. pan is removed and broken manually with hammer to required lump size. The slag produced in the process is generally free from metal thus after cooling the slag is shifted to slag dump.

Rotary Hearth Furnace

Ironmaking in the rotary hearth furnace (RHF) is a direct reduction process which utilizes non-coking coal for the reduction of iron ore. The RHF is the process reactor which consists of a flat, refractory hearth rotating inside a stationary, circular tunnel kiln. Inside

the RHF, direct reduction of iron ore or iron-bearing waste materials occurs, using coal as the reductant.

Iron Ore Beneficiation Plant:

Iron ore fed to a spiral screw type classifier for washing. The washed ore from spiral classifier will be screened for +4 mm and -4 mm fractions over a scalping screen. Undersize fraction of -4 mm will be pumped to sizing screens for screening of -1 mm fraction. Oversize fractions of +4 mm from the scalping screen and +1 mm from the sizing screens are ground in a primary ball mill in closed circuit with sizing screens to get 100% -1 mm solids suitable for gravity separation in spirals. Washed sizing screen underflow fraction of -1 mm will be pumped to dewatering cyclones. Underflow of dewatering cyclones is beneficiated by gravity separation through two stage spirals viz., rougher and cleaner spirals. Concentrate from spirals circuit is ground to a size consistency of 100% passing 100 mesh and ~70% passing 325 mesh in secondary ball mills in closed circuit with classifying cyclones. Ground concentrate from the classifying cyclones overflow as well as the overflow from dewatering cyclones ahead of spirals will be pumped to concentrate thickener. Concentrate thickener underflow thereafter will be filtered to get a product with 8% moisture max. The filter cake will be conveyed to stockpile. Tailings from the spirals circuit will be pumped to a linear screen to ensure a 100% -1 mm size solids in the slurry will be fed to high gradient magnetic separators to recover feebly magnetic Fe units.

Coal Washery

The washery feed conveyor carrying crushed coal will discharge onto a desliming vibrating screen for wet removal of coal. The over flow of this screen will be sent to a mixing box where the coal gets mixed with the magnetite medium of required specific gravity. The coal plus magnetite from the mixing box will be pumped to the Heavy Media Cyclone by a centrifugal pump. The HM Cyclones will separate washed/clean coal and rejects by density. The over flow (Clean coal) form the HM cyclone will be fed to a Draining and Rinsing horizontal vibrating screen for initial dewatering and for removal/recovery of magnetite. The overflow of this D & R screen will then be fed to a Vibrating Basket Centrifuge for further / final dewatering of clean coal. The underflow of

the HM cyclones (rejects) will be fed to a Draining and Rinsing horizontal vibrating screen for dewatering and removal of media.

Sinter Plant:

A shallow bed of fine particles is agglomerated by heat exchange and partial fusion of the quiescent mass. Heat is generated by combustion of coke fines admixed with the bed of fines being agglomerated. The combustion is initiated by igniting of coke fines exposed at the surface of the bed, after which a narrow, high temperature zone is caused to move through the bed by an induced draft applied at the bottom of the bed. Within this narrow zone, the surfaces of adjacent particles reach fusion temperature, and gangue constituents from a semi-liquid slag. The bonding is affected by a combination of fusion, grain growth and slag liquidation. The generation of volatiles from the fuel and flux stone creates a frothy condition and the incoming air quenches and solidify the rear edge of the advancing fusion zone. The product consists of cellular mass of ore bonded in a slag matrix.

Fly Ash Bricks Manufacturing Plant:

Fly ash brick is manufactured by mixing fly ash with an equal amount of clay, then firing in a kiln at about 1000 °C. This approach has the principal benefit of reducing the amount of clay required. Fly ash brick is also made by mixing soil, plaster of Paris, fly ash and water, and allowing the mixture to dry. Because no heat is required, this technique reduces air pollution.

5.0 Key Pollution Concerns:

The key pollution concerns from the proposed project will be stack emissions, fugitive emissions, wastewater generation, noise levels and solid waste generation. The project will provide pollution control equipment for restricting the pollution from stack emissions. Dust suppression system will be provided for controlling the fugitive emissions. Green belt will be developed and equipment will be maintained regularly. Zero liquid discharge will be implemented. Solid waste generated will be recycled/supplied to others for re-utilization, etc.

6.0 Baseline Environmental Studies:

Ambient Air Quality:

The ambient air quality monitored at 8 locations for 12 weeks during March-May 2023. The ambient air quality levels were as follows:

PM_{10} : 41.6 to 66.1 µg/m^3.

$PM_{2.5}$: 17.6 to 39.4 µg/m^3

SO_2 : 10 to 25.1 µg/m^3

NOx : 15.9 to 31.5 µg/m^3

The concentrations of PM_{10}, $PM_{2.5}$, SO_2 and NOx were found within the National Ambient Air Quality Standards (NAAQ).

Ambient Noise Quality:

Noise levels measured at eight stations within the study area. Recorded noise levels in the study area of proposed project site, are in the range of 37.6 – 50.2(night time) to 38.2–55.6 dB (A) (day time) at all eight monitoring stations. Noise levels measured are within limit of 55dB(A) for Residential Area or 75 dB(A) for Industrial Area.

Traffic Study:

The traffic study was carried out at 2 locations namely near Government ITI on Maharashtra State Highway no.7 and near MIDC Road T Point on MIDC Road. Based on the study it is observed that, after completion of plant maximum 455 to 456 trucks per day will move in and out for material transportation and for finished product and other allied work.

Surface & Ground Water Quality:

A total 13 samples including five surface & eight ground water samples were collected and analyzed. The water samples were analyzed as per Standard Methods for Analysis of Water and Wastewater, American Public Health Association (APHA) Publication. The data indicates that the ground water as well as the surface water quality is within respective prescribed standards.

Soil Quality:

Eight Soil samples were collected analyzed for physico-chemical characteristics at selected locations in the study area. Texture of all Soil samples are found to be Silty Sand silty clay, Silty sand with gravel, as per Texture Classification. Colour of all Soil samples are found to be Gray to Black Cotton. pH values varied between 6.74 to 7.53. The NPK levels of soils in the study area found to be in good range.

Biologic Environment:

During the Ecology & Biodiversity survey total 157 species of plant have been observed. During Fauna study total 14 species of fish, 3 species of Amphibian, 16 species of Reptiles, 47 species of Birds & 16 species of Mammals have been reported from the discussion with local people. No endangered plant was observed during survey but vegetation is rich, many diversity of herbs and shrubs. Many medicinal plants were observed. Some quadrates have shown dominance of herb and shrub.

Land use:

The majority of the study area is occupied by agriculture land. Forest occupies 16% of the study area. Water bodies along with rivers/stream/canals occupied 12.48% of the study area.

Socio-Economic Environment:

During the baseline survey and based on the census data, Female to Male population found to be 1001 females to 1000 males. People expressed satisfaction about quality and quantity of drinking water. Communication facilities are very poor in the villages. Agriculture is the main occupation of the respondents. Rainfed crops are grown. Unemployment is a crucial problem.

7.0 Anticipated Impacts:

Impact on Ambient Air Quality:

The major pollutants of air in a proposed plant are the particulate matters from the various stacks and fugitive emissions due to material handling. SO_2 and NO_X also add to

the pollutant level due to proposed project operation. Company will take all measures to effectively control the air emissions and periodic monitoring of the stack emissions. During operation phase, air emissions both gaseous and fugitive will be on account of process emissions from stacks of Sponge Iron Plant, Steel Melting Shop, Sub Merged Arc Furnace, Iron Ore Beneficiation Plant, Sinter Plant, Coal Washery and Power Plant as well as transportation of men and material.

Impact on Ambient Noise Quality:

During operation, the major noise generating sources are crushing mill, auto loading section, 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.

Impact on Surface & Ground Water Resources and Quality:

The water for the proposed project will be supplied by MIDC & Irrigation Department. The project will implement zero liquid discharge. No ground water will be abstracted.

Impact on Terrestrial and Aquatic Habitat:

The project will be located in notified industrial area. Project will implement zero liquid discharge. Hence impacts on terrestrial and aquatic habitat is negligible.

Impact on Socio Economic Environment:

G.R.Krishna Ferro Alloys Private Limited is providing direct employment 1400-1700 workers. The local persons have been given preference in employment as per the qualification and technical competencies. The project will also carry out developmental activities under CER and CSR.

8.0 Alternative Analysis:

The technologies for manufacturing of different products have been selected based on the technologies available in India and already proven and widely used by different industries. The preferred site is located in notified industrial area and having readily available facilities such as water supply, power supply, etc. and has locational advantage w.r.t. the alternative site.

9.0 Environmental Monitoring Program:

Air quality management plan:

The pollution control equipment like ESPs/bag filters/dust collectors will be provided for controlling the emissions from stack. Dust suppression system will be provided for controlling fugitive emissions. Green belt will be developed. Ambient air quality, stack emissions and fugitive emissions will be monitored regularly.

Noise quality management plan:

Padding/insulation will be provided at various locations to avoid noise due to various activity. Regular maintenance of the various equipment will be done. Ear plugs/muffs will be provided. Ambient and work zone noise levels will be monitored.

Solid and Hazardous Waste Management Plan:

The solid waste generated from the proposed plant will be managed as per the existing rules, authorization to be obtained from MPCB. Part of the solid waste will be reused and others will be supplied to different vendors for reusing.

Effluent Management Plan

The project will implement zero liquid discharge. Entire wastewater generated will be reused after suitable treatment. A packaged STP will be provided for the treatment of sewage. Treated sewage will be reused for plantation.

Storm Water Management Plan

RWH structures will be provided to harvest the rain water around the plant area and roof top. The collected rain water shall be utilized for plant uses to minimize the raw water requirement from the source. The surface water run-off from the main plant area would be led to a sump for settling and the over flow would be collected in the common water basin for further uses in the plant to optimize the raw water requirement of the plant.

Occupational Health & Safety Management Plan:

M/s. G.R. Krishna Ferro Alloys Private Limited will provide all necessary provisions under Factory Act. In addition, a safety committee will be formed and manned by equal participants from Management and Workers. All personal protective equipment like

Safety shoes, helmet & uniform will be issued to each employee based on the nature of job involved. Regular health check-up of all the workers at nearby Hospitals. First aid training shall be given to the employees.

Greenbelt Development Plan:

The plantation will be developed along the boundary, along roads and open areas. The green belt in the project will be developed over an area of 8.40 ha. i.e. 36.99% of the project area. The species will be selected in consultation with local forest department.

Socio-economic management plan:

M/s. G.R. Krishna Ferro Alloys Private Limited would aid in the overall social and economic development of the region. The plant will give employment to about 1400-1700 nos. of people. 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.

Project Cost and EMP Implementation Budget:

The estimated project cost for the proposed project is about Rs. 860 Cr. The project proposes to allocate a budget of Rs. 80 Crores for capital works under Environment Management and recurring cost is Rs. 3.25 Crores annual operation and maintenance.

CONCLUSION

It can be concluded that the proposed project activities will not have any major adverse effect on the surrounding environment. Further, due to proposed project, local people will get employment.