

**SUMMARY ON  
ENVIRONMENTAL IMPACT ASSESSMENT  
REPORT**

**OF**

**Shree Rupanadham Steels (P) Ltd.**

**Village** : Saraipalli  
**Tehsil** : Tamnar  
**District** : Raigarh

**SUBMITTED TO**

**CHHATTISGARH ENVIRONMENT CONSERVATION BOARD,  
RAIPUR, CHHATTISGARH**



### **1.0 INTRODUCTION**

M/s **Shree Rupanadham Steel (P) Ltd.** has proposed to expand the Steel Plant at Saraipalli Village, Tamnar Tehsil, Raigarh District, Chhattisgarh. 27.52 acres of land is in possession of management and expansion will be carried out in the existing premises only. No government land and Forest land is involved in the site. The following are products and capacities existing and proposed in this Steel Plant.

S.No.	Products	Capacity		
		Existing	Proposed expansion	After expansion
1	Sponge Iron	--	90,000 TPA	90,000 TPA
2	MS Billets	33,500 (Only 16,750 TPA is commissioned)	90,000 TPA	1,23,500 TPA
3	TMT Bars / Structural Steels / Wire rod mill	4,800 (Not installed or commissioned)	90,000 TPA	94,800 TPA
4	<b>Captive Power (Total)</b> WHRB FBC	--	<b>18 MW</b> 6 MW 12 MW	<b>18 MW</b> 6 MW 12 MW

**Pioneer Enviro Laboratories & Consultants Private Limited**, Hyderabad, have prepared Draft Environmental Impact Assessment (DEIA) report for the proposed expansion of steel plant by incorporating the Terms Of Reference approved by Ministry of Environment & Forests, New Delhi. The report contains detailed description of the following

- a. Characterization of status of environment with in an area of 10 Km. radius from the project site for major environmental components including air, water, noise, soil, flora, fauna and socio-economic environment.
- b. Assessment of air emissions, liquid waste and solid waste from the proposed project along with the noise level assessment.
- c. Pollution control measures proposed to be adopted in the proposed Plant.
- d. Environmental Management Plan (EMP) and Post project Environmental monitoring to be adopted.

### **2.0 PROJECT DESCRIPTION**

- Nearest habitation Barpali, is at a distance of about 1.0 Km. from the Plant site.
- There are no National Parks, Wild life Sanctuaries and Bird Sanctuaries within 10 Km radius.



The following are the reserved forests exist in the area:

S.No.	Name of Reserved Forest
1.	Taraimal RF
2.	Rabo RF
3.	Urdana RF
4.	Lakha PF
5.	Punjipathara PF
6.	Samaruma RF

- State Forest Department has issued a letter confirming that there will not be any impact of the proposed unit on the above mentioned forest.
- No clearance of vegetation is required .
- No habitations within the site. Hence rehabilitation & resettlement is not involved.
- No Government land / Forest land is involved in the site acquired.
- Kurket & Kelo river flows at a distance of 6.5 Kms. & 8.7 Kms. from the plant.
- The following industries are situated in 25 Km radius.

#### LIST OF INDUSTRIES WITHIN 25 KM RADIUS

Sr. No	Name of unit	Address
1.	M/s Jindal Steel and Power Limited,	: Village: Patarapali, Distt. Raigarh
2.	M/s Nalwa Sponge & Power Limited,	: Village: Taraimal, Gerwani, Distt: Raigarh
3.	M/s Ind Synergy Limited	: Village: Kotmar, Mahapalli; Distt. Raigarh
4.	M/s Singhal Enterprises Pvt. Ltd.	: Village: Taraimal Gerwani, Distt. Raigarh
5.	M/s M.S.P. Steel & Power Ltd	: Village: Jamgaon, Distt. Raigarh
6.	M/s Monnet Ispat & Energy Limited	: Village: Naharpali, Distt. Raigarh
7.	M/s Anjani Steel Pvt. Ltd.	: Village:Ujjwalpur, Distt. Raigarh
8.	M/s Shivshakti Steel Pvt. Ltd.	: Village: Chhakradharpur, Hamirpur Road, Distt. Raigarh
9.	M/s Skenia Stel & Power Ltd	: Village: Punjipathra, Tehsil: Ghargoda, Distt. Raigarh
10.	M/S Salasar Sponge Iron & Power Ltd.	: Village: Gerwani Distt. Raigarh
11.	Shree Shyam Ispat India Pvt Ltd.	: Village: Taraimal, Gerwani Distt. Raigarh
12.	M/s Seleno Steel Pvt. Ltd.	: Village: Taraimal, Gerwani Distt. Raigarh
13.	Navdurga Fuels Pvt. Ltd.	: Village: Saraipali, Ghargoda Distt. Raigarh
14.	Maa Kali Alloys Pvt. Ltd.	: Village: Pali, Tehsil:Ghargoda Distt.Raigarh
15.	Rameshwar Steel Limited	: Village: Badegumara,Tehsil: Ghargoda, Distt.Raigarh
16.	Raigarh Ispat & Power Ltd	: Village: Delari, Saraipali Distt. Raigarh
17.	Ambika Ispat Pvt. Limited	: Village: Taraimal, Gerwani Distt. Raigarh
18.	Raigarh Iron Industries Limited	: Village: Punjipathra, Tehsil:Ghargoda, Distt. Raigarh
19.	Maa Shakambari Steel Pvt. Ltd	: Village: Sambalpuri, Hamirpur Road, Distt. Raigarh
20.	Maa Mangla Ispat Pvt. Ltd.	: Village: Natwarpur, Distt.Raigarh
21.	B.S.Sponge Pvt. Limited	: Village:Taraimal, Gerwani Distt. Raigarh
22.	Jindal Power Limited	: Tamnar, Distt. Raigarh
23.	Rukhmani Power Limite	: Village:Kunkuni, Tehsil: Kharasiya, Distt. Raigarh
24.	R.R.Energy Limited	: Village:Garumariya, Distt. Raigarh
25.	Ind Power Limited	: Village: Mouhapali, Distt. Raigarh
26.	Jindal Industrial Park	: Punjipathra, Distt. Raigarh
27.	Raigarh Iron Industries Ltd.	: Punjipathra, Raigarh
28.	Suraj Rolling Mill Pvt. Ltd	: Urdana, Raigarh



Sr. No	Name of unit	Address
29.	Maa Mahamaya Rolling Mill Pvt. Ltd,	: Village: Delari Raigarh
30.	Gayatri Rolling Mill Pvt. Ltd	: Village:Gerwani, Distt. Raigarh
31.	Mangla Rolling Mill Pvt. Ltd.	: Village:Gerwani, Distt. Raigarh
32.	Abhishek Re-rolling works & Steel Pvt. Ltd.	: Village: Gerwani Distt. Raigarh
33.	Chandhasini Ispat Pvt. Ltd	: Village: Gerwani, Distt. Raigarh
34.	Jagdamba Structural India Pvt. Ltd\	: Village: Jorapali, Distt. Raigarh
35.	Vandana Energy & Steel Pvt. Ltd.	: Village:Punjipathra, Distt. Raigarh
36.	Setarn Ferro Alloys Pvt. Ltd.	: Village: Garumariya, Distt. Raigarh
37.	Standard Chrome Limited	: Village: Barmuda, Distt. Raigarh
38.	M.S.P.Sponge Iron Limited	: Village: Munvapali, Distt. Raigarh
39.	Jindal Power Limited (Open cast Coal Mine),	: Village: Dongamahua Distt. Raigarh
40.	Barod Open Cast Mine (SECL)	: Village: Barod, Distt. Raigarh
41.	Chhal Under Ground Mine(SECL)	: Village: Navapara, Distt. Raigarh
42.	Dharam Under Ground Mine(SECL)	: Village: Chandrashekhpur, Distt. Raigarh
43.	Chhal Open Cast Mine (SECL)	: Village: Lat, Distt. Raigarh
44.	Monet Ispat Limited (Coal Mine Division ),	: Village: Milupara Distt. Raigarh
45.	Sharda Energy & Minerals (Raipur Alloy),	: Village: Karwahi Distt. Raigarh
46.	Jaiswal Neko Limited (Coal Mine)	: Village: Gare, Distt. Raigarh
47.	Jindal Steel & Power Limited, (Coal Mine),	: Village:Dongamahua Distt. Raigarh
48.	N.R. Ispat and Power private Limited	: Village : Gourmudi, District : Raigarh

**3.0 DETAILS OF PROJECT****3.1 RAW MATERIALS**

The following will be the raw material requirement for the proposed Steel Plant.

**RAW MATERIAL REQUIREMENT**

Raw Material	Consumption (TPA)			Sources of Supply	Method of Transportation
	Existing	Expansion	After expansion		
<b>SPONGE IRON</b>					
Sized Iron Ore	---	1,44,000	1,44,000	NMDC, Orissa	By rail/ Road (Covered trucks)
Coal	---	1,17,000	1,17,000	SECL	By rail/ Road (Covered trucks)
Dolomite	---	4,500	4,500	Open market	By Road (Covered trucks)
<b>Steel Melting</b>					
Sponge Iron	28,050	84,000	1,12,050	In House generation / open market	By Road (Covered trucks)
Scrap	9,200	24,750	33,950	Open market	By Road (Covered trucks)
Ferro Alloys	300	850	1,150	Open market	By Road (Covered trucks)
<b>ROLLING MILL</b>					
Billets	---	99,000	99,000	In House generation	By Road (Covered trucks)
<b>POWER PLANT</b>					
Coal	---	44,100	44,100	SECL	By rail/ Road (Covered trucks)



Dolomchar	---	27,000	27,000	In House	---
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### **3.2 MANUFACTURING PROCESS**

#### **3.2.1 SPONGE IRON (DRI)**

Refractory lined rotary kilns will be used for reduction of Pellets in solid state. A central Burner located at the discharge end will be used for initial heating of the kiln.

Pellets will be continuously fed into the kiln along with coal which has dual role of fuel as well as reductant. Dolomite will be added to scavenge the sulphur from the coal. A number of air tubes will be provided along the length of the kiln. The desired temperature profile will be maintained by controlling the volume of the combustion air through these tubes. The Carbon monoxide generated due to the combustion of coal, reduces the Pellets and convert it into sponge iron. The rotary kiln is primarily divided into two zones viz. the pre heating zone and the reduction zone. The preheating zone extends over 30 to 50 % of the length of the kiln and in this the moisture in the charge will be driven off and the volatile matter in the coal will be burnt with the combustion air supplied through the air tubes. Heat from the combustion raises the temperature of the lining and the bed surface. As the kiln rotates, the lining transfers the heat to the charge. Charge material, pre-heated to about 1000°C enters the reduction zone. Temperature of the order of 1050°C will be maintained in the reduction zone, which is the appropriate temperature for solid state reduction of iron oxide to metallic iron. This hot material will be transferred to Heat exchanger. In Heat exchanger the material will be cooled to 160°C. The cooler discharge material consists of sponge iron lumps, sponge iron fines and char. Magnetic and non-magnetic material will be separated through magnetic separators and stored in separate bins. The hot flue gases will be taken to a Waste Heat Recovery Boiler and after heat recovery they will be treated in high efficiency ESP and discharged into the atmosphere through stack whose height will be in accordance with CPCB norms.

#### **3.2.2 Steel Melting Shop**

Initially scrap & other metallics such as Sponge Iron / Pig Iron will be charged into the Induction furnace. After scrap & other metallics are fully melted, the temperature of the melt reaches above 1600°C, then DRI / Pig Iron will be continuously charged into the furnace. As soon as the charge is melted, bath samples will be taken and temperature will be measured.

There will be 2 nos. of induction furnaces of 15 MT each. Concast will be used to produce Billets.

#### **3.2.3 ROLLING MILL:**

The company has proposed to establish a rolling mill with a capacity of 90,000 TPA. Furnace oil will be used as fuel in the reheating furnace.

**3.2.4 POWER GENERATION****3.2.4.1 THROUGH WASTE HEAT RECOVERY BOILER (WHRB)**

The hot flue gases from DRI kilns will pass through waste heat recovery Boilers to recover the heat and to generate 6.0 MW electricity. The gases after heat recovery will pass through ESPs and then discharged through chimneys into the atmosphere for effective dispersion of emissions into the atmosphere.

**3.2.4.2 THROUGH AFBC BOILER**

Total dolochar generated will be used in AFBC Boilers along with coal to generate 12 MW electricity. The flue-gases will be treated in high efficiency ESP and then discharged through stack into the atmosphere.

**3.3 WATER REQUIREMENT**

The proposed project requires about 835 cum/day of water. This includes Make-up water for DRI, SMS, Rolling Mill, Power plant and Domestic water. Air Cooled condensers are proposed to be adopted in the power plant instead of water cooled condensers with cooling towers. The water requirement for the existing plant is being met from ground water source and for the proposed expansion project will also be met from ground water sources. Necessary permission from the Central Ground Water Board is under process. Water will be drawn after obtaining permission only. Hence there will not be any adverse impact on water resources due to the proposed expansion.

**WATER REQUIREMENT**

S.No	Unit	Water Consumption (KL/Day)
1.	Cooling water Make-up for DRI plant	100
2.	Cooling water make-up for SMS	100
3.	Cooling water make-up for Rolling Mill	125
3.	POWER PLANT	500*
	a) Cooling Tower Make-up	340
	b) Boilers make-up	140
	c) D.M. plant regeneration water	20
4.	Domestic	10
	<b>Total</b>	<b>835</b>

\* **Note:** Air Cooled condensers are proposed to be adopted in the power plant instead of water cooled condensers with cooling towers.

**3.4 Waste Water Generation**

There will not be any process waste water (or) cooling water blowdown from the DRI Plant, Rolling Mill, SMS, as closed circuit cooling system will be adopted in the proposed expansion.



Boiler blowdown, CT Blowdown & DM Plant regeneration will be the sources of effluent generation from the power plant. The following will be the total wastewater & it's break-up.

#### WASTE WATER GENERATION

S.No.	Unit	Wastewater Generation (KL/Day)
1.	POWER PLANT	
	a) Cooling Tower Blow down	75
	b) Boilers blow down	35
	c) D.M. plant regeneration water	20
2.	Domestic	8
	<b>Total</b>	<b>138</b>

#### 3.5 Waste water Characteristics

The following are the Characteristics of the effluents generated from different sources.

#### CHARACTERISTICS OF EFFLUENT

PARAMETER	CONCENTRATION			
	DM Plant regeneration	Boiler blowdown	Cooling Tower blowdown	Sanitary waste water
pH	4 – 10	9.5 – 10.5	7.0 – 8.0	7.0 – 8.5
TDS (mg/l)	5000 – 6000	1000	800 - 1000	800 - 900
COD (mg/l)	--	--	--	300 – 400
BOD (mg/l)	--	--	--	200 - 250

#### 4.0 DESCRIPTION OF ENVIRONMENT

Base line data has been collected on ambient air quality, water quality, noise levels, flora and fauna and socio economic details of people within 10 km radius of the plant.

##### 4.1 Ambient air quality

Ambient air quality was monitored for RPM, SPM, SO<sub>2</sub> & NO<sub>x</sub> at 8 stations including project site for one season as per MoEF guidelines. The following are the concentrations of various parameters at the monitoring stations.

Parameter		Concentration
RPM	:	31.2 to 45.0 µg/m <sup>3</sup>
SPM *	:	101.5 to 145.9 µg/m <sup>3</sup>
SO <sub>2</sub>	:	7.5 to 11.6 µg/m <sup>3</sup>
NO <sub>x</sub>	:	9.0 to 13.9 µg/m <sup>3</sup>

\* PAH in SPM were analysed and their concentrations at all monitoring

Stations are below Detectable level.

##### 4.2 Water quality

Ground water samples were collected at 8 locations along with surface water samples and analysed for various Physico-Chemical parameters. The water samples are within the permissible limits of IS: 10500 & IS: 2296.



#### **4.3 Noise levels**

Noise levels were measured at 8 locations during day time & Night time. The noise levels at the monitoring stations are ranging 43.10 dBA to 47.89 dBA.

### **5.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

#### **5.1 Prediction of impacts on air quality**

The likely emissions from the proposed Plant are SPM, SO<sub>2</sub>, NO<sub>x</sub>. The emissions from other industries in the area are also considered. The predictions of Ground level concentrations have been carried out using Industrial Source Complex model. Meteorological data such as wind direction, wind speed, max. and min. temperatures collected at the site have been used as input data to run the model.

It is observed from the computation results that the maximum predicted incremental rise in 24 hourly ground level concentrations of PM, SO<sub>2</sub> and NO<sub>x</sub> during operation of present expansion and other industries in the area are 5.1 µg/m<sup>3</sup>, 22.6 µg/m<sup>3</sup> and 11.6 µg/m<sup>3</sup> respectively at a distance 975 m in the down wind direction.

The predicted results shows that the net resultant concentration (max. baseline conc. + max. incremental rise in conc.) of PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> will be well within the National Ambient Air Quality Standards after commissioning of expansion project (along with other industries in the area). Hence there will not be any adverse impact on air environment due to the proposed expansion.

#### **5.2 Prediction of impacts on noise quality**

The major sources of noise generation in the proposed Plant will be STG, boilers, compressors, DG set, etc. The ambient noise levels will be within the standards prescribed by MOE&F vide notification dated 14-02-2000 under the noise pollution (Regulation & Control), rules 2000 i.e. the noise levels will be less than 75 dBA during day time and less than 70 dBA during night time.

9.0 acres of extensive greenbelt (inclusive of existing) is proposed to be developed in the plant premises to further attenuate the noise levels. Hence there will not be any adverse impact due to noise on the environment in surrounding areas due to the proposed expansion.

#### **5.3 Prediction of impacts on water Environment**

There will not be any process waste water (or) cooling blow down generation from the DRI plant, SMS, & Rolling mill plants as closed circuit cooling system will be followed.

The effluent generated will be from power plant which includes Boiler blow down, cooling tower blow down, DM plant regeneration and this will be treated in Effluent treatment plant. This treated effluent after ensuring compliance with norms of CECB/CPCB will be used for dust suppression, ash conditioning & for greenbelt development. Zero effluent discharge is being





maintained in the existing plant and similarly zero effluent discharge will be adopted in the proposed expansion also.

Sanitary waste water will be treated in septic tank followed by soak pit. Rain water harvesting will be implemented in consultation with State Ground Water Board. This will help in improvement of ground water table in the area. The water requirement for the proposed expansion will be met from ground water sources. Necessary permission from the Central Ground Water Board is under process. Water will be drawn after obtaining permission only. Hence there will not be any adverse impact on water environment in the study area due to the proposed expansion.

#### **5.4 Prediction of Impacts on Land Environment**

The effluent will be treated to achieve CECB standards for on land for irrigation. Zero effluent discharge will be adopted. All the required air pollution control systems will be provided to meet CPCB/CECB norms. All solid wastes will be disposed / utilized as per CPCB/CECB norms. Hence there will not be any adverse impact on land environment due to the proposed expansion.

#### **5.5 Prediction of Impacts on Biological Environment**

In the existing plant all the norms stipulated by CECB are being followed and will be followed during expansion also. All the required emission control systems will be installed and operated to comply with norms. Interlocking system will be provided to ESP in such a way that whenever ESP fails the raw material feed to the kiln will be stopped. Hence there will not be any adverse impact on flora ,fauna & humans due to the proposed expansion.

#### **5.6 Prediction of impacts on Socio - Economic Environment**

There will be lot of opportunities in employment to local people during construction as well as in operation phase. There will be an upliftment in Socio Economic status of the people in the area. Regular medical check ups will be conducted in the village. Hence there will be further development of the area due to the proposed expansion.

### **6.0 ENVIRONMENTAL MONITORING PROGRAMME**

Post project monitoring will be conducted as per the guidelines of CECB and MoEF are tabulated below.

#### **MONITORING SCHEDULE FOR ENVIRONMENTAL PARAMETERS**

<b>S. No.</b>	<b>Particulars</b>	<b>Frequency of Monitoring</b>	<b>Duration of sampling</b>	<b>Parameters required to be monitored</b>
<b>1. Water quality</b>				
	Water quality in the area	Once in a month except for heavy metals which will be monitored on quarterly basis.	Grab sampling	As per IS: 10500



<b>2. Air Quality</b>				
A.	Stack Monitoring	Online monitors (WHRB, FBC boiler stacks) Once in a month		SPM SPM,SO <sub>2</sub> & NO <sub>x</sub>
B.	Ambient Air quality	Twice a week	24 hours continuously	PM <sub>10</sub> , SPM, SO <sub>2</sub> & NO <sub>x</sub>
C.	Fugitive emissions	Once in a Month	8 hours	PM
<b>3. Meteorological Data</b>				
	Meteorological data to be monitored at the plant.	Daily	Continuous monitoring	Temperature, Relative Humidity, rainfall, wind direction & wind speed.
<b>4. Noise level monitoring</b>				
	Ambient Noise levels	Twice in a year	Continuous for 24 hours with 1 hour interval	Noise levels

### 7.0 PROJECT BENEFITS

The local areas will be benefited by way of generation of employment opportunities, increased demand for local products and services. There will be an overall improvement in the income level of the local people.

The project creates employment to about 200 persons once the plant is commissioned and for 700 persons during construction stage. Priority will be given to locals for Semi-Skilled and Unskilled workers. With the development of this plant there will be lot of scope for more industrial investments which in turn will benefit the nation.

### 8.0 ENVIRONMENT MANAGEMENT PLAN

#### 8.1 Air Environment

S. No.	Source	Control Equipment	Guaranteed Outlet Dust Emission
1.	Kilns (3 x 100 TPD) with WHRB	Electro Static Precipitators (ESP) – 3 nos.	< 50 mg/Nm <sup>3</sup>
2.	Induction Furnace with CCM	Fume Extraction & cleaning system with bag filters	< 50 mg/Nm <sup>3</sup>
3.	FBC Boiler	Electro Static Precipitator	< 50 mg/Nm <sup>3</sup>

The following air pollution control systems/ measures are proposed in the Plant

- All conveyors will be completely covered with G.I. sheets to control fugitive dust.
- All bins will be totally packed and covered so that there will not be any chance for dust leakage.
- All the dust prone points material handling systems will be connected with de-dusting system with bag filters.
- All discharge points and feed points, wherever the possibility of dust generation is there a de-dusting suction point will be provided to collect the dust.



- The collected dust from the Bag house of Steel Melting will be taken to a dust storage bin through a pneumatic conveying system.
- All the required Air pollution control measures will be strictly implemented so that the ambient air quality will be with in the National Ambient Air Quality standards during the operation of the plant.
- Extensive greenbelt proposed to be developed will help in further mitigating the air emissions.

## 8.2 WATER ENVIRONMENT

- There will not be any process waste water (or) cooling blow down generation from the DRI plant, SMS, & Rolling mill plants as closed circuit cooling system will be followed.
- The effluent generated will be in the form of cooling tower blow down, Boiler blow down, D. M. Plant regeneration water and sanitary water.
- Sanitary waste water will be treated in septic tank followed by soak pit.

### Effluent Treatment Plant:

pH of the boiler blowdown will be between 9.5 to 10.5. Hence a neutralization tank will be constructed for neutralizing the boiler blow down. DM plant regeneration water will be neutralized in a neutralization tank. After neutralization these two effluent streams will be mixed with Cooling Tower blowdown in a Central Monitoring Basin (CMB). The treated effluent will be utilized for dust suppression, ash conditioning and for Green belt development. No effluent will be let out of the plant premises. Hence Zero discharge concept will be implemented. Sanitary waste water will be treated in Septic tank followed by soak pit.

## 8.3 Solid Waste Generation & Disposal

S. No	Solid waste	Quantity (TPD)		Total (TPD)	Method of disposal
		Existing	Expansion		
1	Dolochar	--	90	90	Captively consumed in FBC boiler as fuel
2	Accretion slag	--	3	3	Used in road construction
3	Wet scrapper sludge	--	12	12	Used in road construction
4	Ash/dust	--	120	120	Given to Brick Making units / cement plants
5	Slag from SMS	5.6	30	35.6	Used in road construction
6	Mill Scales	0.8	15	15.8	Re used in SMS

## 8.4 Noise environment

The major sources of noise in the proposed expansion will be STG, boilers, compressors, DG set etc. The employees working near the noise generating sources will be provided with earplugs. Acoustic enclosures will be provided to turbines. Noise absorbing materials will be used in the construction of roofs, walls and floors. The extensive greenbelt development proposed within



the plant premises will help in attenuating the noise levels further. Noise barriers in the form of trees are recommended to be grown around administrative block and other utility units.

### **8.5 Land Environment**

The waste water generated from the plant will be treated in the Effluent Treatment plant to comply with the CECB standards and will be used for dust suppression, ash conditioning and for greenbelt development. All the required Air pollution control systems will be installed and operated to comply with CECB norms. Solid wastes will be disposed off as per norms. Extensive greenbelt will be developed in the plant premises as per CPCB norms. Desirable beautification and landscaping practices will be followed. Hence there will not be any impact due to the proposed Plant.

### **8.6 GREENBELT DEVELOPMENT**

9.0 acres of greenbelt will be developed (inclusive of existing) as per CPCB guidelines. 15 m wide greenbelt will be developed along the periphery of the plant.

### **8.7 IMPLEMENTATION OF CREP RECOMMENDATIONS**

All the CREP recommendations will be strictly followed in the proposed expansion.

### **8.8 POST PROJECT ENVIRONMENTAL MONITORING**

Ambient Air Quality, Stack monitoring & effluent analysis will be carried out regularly as per CPCB norms and the analysis reports shall be submitted to MoEF & CECB regularly.

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