## SUMMARY ON ENVIRONMENTAL IMPACT ASSESSMENT REPORT

OF

# **Prakash Industries Limited**

[Wire Rod Mill Division Unit # 2]

[Modifications in the Existing Wire Rod Mill of 1.8 LTPA capacity along with 3 x 8000 NM<sup>3</sup>/ Hr Coal Gasifiers (2 Working + 1 Standby)]

at

New Industrial Area, Ring Road No. 2, Village: Gogaon, Tehsil: Raipur, District: Raipur, Chhattisgarh

Submitted to

CHHATTISGARH ENVIRONMENTCONSERVATION BOARD

#### 1.0 PROJECT DESCRIPTION

Prakash Industries Limited (PIL) is operating Wire Rod Mill Unit # 2 at New Industrial Area, Ring Road No. 2, Village: Gogaon, Tehsil: Raipur, District: Raipur, Chhattisgarh.

Consent to Establishment was obtained from Chhattisgarh Environment Conservation Board (CECB) vide No. 816/Ts/CECB/2006 dt. 17.02.2006 for 1.8 LTPA (Wire rod Mill). Later Environmental Clearance was obtained from MoEF&CC for expansion of Wire Rod Mill from 1.8 LTPA to 4.3 LTPA and setting up of Ferro Alloys Plant (12750 TPA – 7.5 MVA) vide letter no. J-11011/211/2009-IA-II (I) dated 10th June 2009. Consent to Establishment was obtained from CECB for expansion of Wire Rod Mill from 1.8 LTPA to 4.3 LTPA and Producer Gas Plant 8000 Nm3/hr (2W + 1SB) vide letter no.2988/TS/CECB/2012 dt. 03.09.2012 & 4193/TS/CECB/2012 dt. 07.11.2012 (Corrigendum) and subsequently obtained Consent to operate, which is being renewed regularly. Current Consent to Operate vide no. 7455/TS/CECB/2019 Atal Nagar dt. 04.02.2019 is valid till 31.01.2022.

Existing plant is located in 15.18 acres (6.14 Ha.) of land. Proposed modifications will be carried out in the existing mill only and no additional land is required for the modifications.

Now, company has proposed modification in the existing Rolling Mill # 1 of 1.8 LTPA capacity to make Structural Steel Angles, Channels & Beams and Other Rolled Products to increase its capacity from 1.8 LTPA to 2.5 LTPA and thus to produce 5.0 LTPA from both mills in Unit # 2 (2 x 2.5 LTPA).

As per the Ministry of Environment, Forests& Climate Change, New Delhi notification, dated 14<sup>th</sup> September, 2006 and its subsequent amendments, all Secondary metallurgical processing industries are classified under Category 'B'.State Expert Appraisal Committee, Chhattisgarh has accorded Terms of Reference (TOR) for the proposed modification project vide Letter No. 535/SEAC,CG/Rolling/Raipur/753, Atal Nagar dated 1<sup>st</sup>March 2019. The EIA Report has been prepared by incorporating the TOR stipulated by the SEAC, Chhattisgarh.

*Pioneer Enviro Laboratories & Consultants Private Limited, Hyderabad*, which is accredited by NABET, Quality Council of India, vide certificate No. NABET/ EIA/ 1619/ RA 026, for preparing EIA report for Metallurgical Unit, have prepared Environmental Impact Assessment (EIA) report for the proposed modification projectby incorporating the TOR

approved by Ministry of Environment, Forests& Climate Change, New Delhi. The report contains detailed description of the following:

- Characterization of status of environment with in an area of 10 km radius from the plant for major environmental components including air, water, noise, soil, flora, fauna and socio-economic environment.
- Assessment of air emissions, liquid waste and solid waste from the proposed expansion project along with the noise level assessment.
- Environmental Management Plan comprising of emission control measures proposed to be adopted in the proposed project, solid waste management, Greenbelt development.
- Post Project Environmental Monitoring& Budget for Environmental Protection Measures.

#### 1.1 ENVIRONMENTAL SETTING WITHIN 10 Km. RADIUS OF THE PLANT SITE

The following is the environmental setting within the 10 Km. radius of the Plant site:

#### Table No. 1.1: ENVIRONMENTAL FEATURES WITHIN 10 KM. RADIUS OF PLANT

S.No.	Salient Features / Environmental features	Distance w.r.t. site / Remarks
1.	Type of Land	Existing Plant (Industrial land)
2.	Type of Land (Study Area)	As per LULC the land use within 10 Km. is as
		follows:
		Settlements – 14.9 %; Industrial Area – 8.2 %;
		Tank / River – 5.9 %; Single crop – 44.3 %;
		Double crop – 9.1 %; Land with scrub –10.4 %;
		Land without scrub – 4.9 %; Land for plotting –
		1.7 %, Stone Quarry – 0.6%
3.	National Park/ Wild life sanctuary /	Nil
	Biosphere reserve / Tiger Reserve /	
	Elephant Corridor / migratory routes for	
	Birds	
4.	Historical places / Places of Tourist	Nil
	importance / Archeological sites	
5.	Critically polluted area as per MoEF&CC	Nil,
	Office Memorandum dated 13 <sup>th</sup> January	however proposed project area falls in Raipur
	2010	area which is severely polluted area as
		categorized by CPCB with CEPI of - 65.45.
6.	Defence Installations	Nil
7.	Nearest village	Habitation exists adjacent to the plant site

## **Prakash Industries Limited**

[Wire Rod Mill Division Unit # 2]

New Industrial Area, Ring Road No. 2, Village: Gogaon, Tehsil: Raipur, District: Raipur, Chhattisgarh

S.No.	Salient Features / Environmental features	Distance w.r.t. site / Remarks
		Gogaon – 0.15 Kms.
8.	No. of Villages in the Study Area	48
9.	Nearest Hospital	AIIMS,Raipur – 2.8 Kms. (SW) Aerial
10.	Nearest School	Govt.higher Secondary School Ketala Maidan
		Gogaon – 0.32 Kms. (NE) Aerial
11.	Forests	Nil
12.	Water body	Kharun river (5.9 Kms.) exists within 10 Km.
		radius of the Plant Site.
13.	Nearest Highway	NH # 200 – 4.2 Kms. (By road)
14.	Nearest Railway Station	Saraswati Nagar RS – 1.9 Kms. (By Aerial)
15.	Nearest Port facility	Nil
16.	Nearest Airport	Nil
		(Raipur Airport – 25.0 Kms.)
17.	Nearest Interstate Boundary	Nil
18.	Seismic zoneas per IS-1893	Seismic zone – II
19.	R & R	Not applicable, as it is an existing plant.
20.	Litigation / court case is pending against	Nil
	the proposed project / proposed site and	
	or any direction passed by the court of law	
	against the project	

Following is list of industries (Major) presently located within 10 Km radius of the site:

S.No.	Name of Industry	Type of Industry
1.	M/s.Prakash Industries Ltd. (Unit – 1)	Steel Plant
2.	M/s. Uniworth Limited	Fabrics Industry
3.	M/s. N.S. Ispat (India) Private Limited	Steel Plant
4.	M/s. Krishna Iron Strips & Tubes Pvt Ltd	Steel Plant
5.	M/s. Shri Bajrang Alloys Ltd.	Steel Plant
6.	M/s. Mahamaya Steel Industries Ltd.	Steel & Power Plant
7.	M/s. Indus Smelters Ltd.	Ferro Alloys
8.	M/s. Deepak Ferro Alloys Ltd.	Ferro Alloys
9.	M/s. Sarthak Ispat Pvt. Ltd.	Steel Plant
10.	M/s. Shri. Bajrang Metallics & Power Ltd.	Steel & Power Plant
11.	M/s. Ashok Ispat Udyog	Steel Plant
12.	M/s. Sarthak Ispat Pvt. Ltd.	Steel Plant
13.	M/s. Nav Durga Ispat Pvt. Ltd.	Steel Plant
14.	M/s. Mahamaya Steel Industries Ltd.	Steel Plant
15.	M/s. HSR Re-Rollers Pvt. Ltd.	Steel Plant
16.	M/s. Agarwal Structure Mill Pvt. Ltd.	Steel Plant
17.	M/s. Hira Power & Steel Ltd.	Steel Plant
18.	M/s. Alok Ferro Alloys Ltd.	Steel Plant

#### Table No. 1.2 – List of Industries within 10 Kms. radius of the project site

**Executive Summary** 



19.	M/s. Hira Ferro Alloys (Power Division)	Power Plant
20.	M/s. Vinayak Ispat Udyog	Steel Plant
21.	M/s. Hira Steel Ltd.	Steel Plant
22.	M/s. Kedia Castle DellonDistilleries Ltd.	Distillery Plant
23.	M/s. Shri Bajrang Power &Ispat Ltd.	Steel & Power Plant
24.	M/s. Real Ispat& Power Ltd.	Steel & Power Plant
25.	M/s. Alankar Alloys Pvt. Ltd.	Steel Plant
26.	M/s. Shree Mahaveer Iron & Steel Pvt.	Steel Plant
	Ltd.	
27.	M/s. Khyatilspat Pvt. Ltd.	Steel Plant
28.	M/s. Pankaj Ispat Ltd.	Steel Plant
29		
25.	IVI/S. Shivali Udyog (I) Ltd.	Steel Plant
30.	M/s. Abhishek Steel Industries Limited	Steel Plant Steel Plant
30. 31.	M/s. Shivali Udyog (I) Ltd. M/s. Abhishek Steel Industries Limited M/s. Vandana Global Ltd.	Steel Plant Steel Plant Ferro Alloys Plant
30. 31. 32.	M/s. Shivali Udyog (I) Ltd. M/s. Abhishek Steel Industries Limited M/s. Vandana Global Ltd. M/s. Surya Isspat Private Limited	Steel Plant Steel Plant Ferro Alloys Plant Steel Plant
30. 31. 32. 33.	M/s. Shivali Udyog (I) Ltd. M/s. Abhishek Steel Industries Limited M/s. Vandana Global Ltd. M/s. Surya Isspat Private Limited M/s. Murli Rolling Mill	Steel Plant Steel Plant Ferro Alloys Plant Steel Plant Steel Plant

#### **1.2** Plant Configuration and Production Capacity

The following are the details of the production capacities of the existing unit and production capacities after proposed modifications:

Table No. 1.3 – F	Plant Configuration	(Existing and Proposed)
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S.No.	Unit	Existing Plant	Proposed Modification	After Proposed Modification
1.	Rolling Mill # 1	1.8 LTPA	0.7 LTPA	2.5 LTPA
2.	Rolling Mill # 2	2.5 LTPA		2.5 LTPA
3.	Coal Gasifier	8000 NM <sup>3</sup> /Hr.		8000 NM <sup>3</sup> /Hr.
		6 No.s		6 No.s
		(4W + 2SB)		(4W + 2SB)

#### 1.3 Raw Materials (For Expansion project)

The following will be the raw material requirement:

S.No.	Raw Quantity(TPA)		Sources	Mode of		
	Material	Existing	Proposed Modification	After Proposed modification		Transport
1.	Billets for Mill # 1	1.962	0.763	2.725	PIL's Induction Furnace Division at Champa& any shortfall will be purchased	By Road (through Trucks/Trailors)
2.	Billets for Mill # 2	2.725		2.725	PIL's Induction Furnace Division at Champa& any shortfall will be purchased	By Road (through Trucks/Trailors)
3.	Coal for all gasifiers (Indian)	0.430		0.430	SECL, Chhattisgarh / MCL Odisha	By rail & road (through covered Wagons/Trucks)

#### Table No. 1.4 – Raw Material requirement (Existing and Proposed)

#### 1.4 Manufacturing Process (Rolling Mill)

The proposed project involves modificationsmodification in the existing Rolling Mill of 1.8 LTPA capacity to make Structural Steel Angles, Channels & Beams and Other Rolled Products to increase its capacity from 1.8 LTPA to 2.5 LTPA and thus to produce 5.0 LTPA from both mills in Unit # 2 (2 x 2.5 LTPA).Furnace will be heated with Producer Gas.

#### 1.5 Water Requirement

Water requirement in existing mills in the Unit # 2 is 15 KLD, which is being met from the Ground water source. There will be no additional water requirement after proposed modifications in Rolling Mills. NOC from Central Ground Water Authority (CGWA) has been vide NOC no. CGWA/NOC/IND/ORIG/2018/3391 dated 24<sup>th</sup> April 2018 for 26 KLD. Hence there will not be any increase in the water requirement after proposed modifications. The following is the break-up of the water requirement for proposed project.

S.No.	Requirement	Quantity in KLD				
		Exis	ting	Proposed modification		Total after proposed modification
		Unit #1	Unit # 2	Unit # 1	Unit # 2	
1	Cooling water make-up for Rolling mill	10	14			24
2	Domestic	1	1			2
	TOTAL	11	15			26

#### Table No.1.5 – Water requirement break up (for Unit # 1 & Unit # 2)

#### 1.6 Waste Water Generation

There will not be any effluent generation from the process & cooling in Rolling Mill & from Producer gas plant as Closed-circuit cooling system is being implemented. Only source of waste water generation is sanitary waste water, which is being treated in Septic tank followed by soak pit. Zero effluent discharge is being maintained in the existing plant and same will be maintained even after proposed modification project.

The following will be the total wastewater & it's break-up.

S.No.	Wastewater	Quantity in KLD				
		Existing		Proposed modification		Total after proposed modification
		Unit # 1	Unit # 2	Unit # 1	Unit # 2	
1	Sanitary wastewater	0.8	0.8			1.6
	TOTAL	0.8	0.8			1.6

#### 1.7 Wastewater Characteristics

#### Table No. 1.7 - Characteristics of Sanitary Waste Water (Untreated)

PARAMETER	CONCENTRATION
рН	7.0 – 8.5
BOD	200 – 250 mg/l
COD	300 – 400 mg/l
TDS	800–900 mg/l

#### 2.0 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.

#### 2.1 Ambient air quality

Ambient air quality was monitored for  $PM_{2.5}$ ,  $PM_{10}$ ,  $SO_2$ , NOx& CO at 8 stations including project site during December, 2018 to February, 2019. The following are the concentrations of various parameters at the monitoring stations:

Parameter		Concentration
PM <sub>2.5</sub>	:	32.6 to 47.4µg/m <sup>3</sup>
PM <sub>10</sub>	:	56.7 to 83.1µg/m <sup>3</sup>
SO <sub>2</sub>	:	8.2to 15.8μg/m <sup>3</sup>
NO <sub>X</sub>	:	15.4 to 31.2μg/m <sup>3</sup>
СО	:	965 to 1558 μg/m <sup>3</sup>

Table No.2.1 - Range of Concentration of various parameters

#### 2.2 Water Quality

#### 2.2.1 Surface Water Quality

Kharun River is flowing at a distance of 5.9 Kms. from the plant. ChokraNala is flowing at a distance of 7.5 Kms. A Stream is passing through the plant site on the SW corner of the plant site. 2 no. of Samples have been collected 60 m Upstream & 60 m Downstream of Kharun River. 1 no. of sample have been collected from ChokraNala& 1 no. of sample collected from Pond situated in Gogaon in East direction. No other samples have been collected as there is no water available in the Streams / Seasonal nalas. The analysis of samples shows that all the parameters are in accordance with BIS-2296 specifications.

#### 2.2.2 Ground Water Quality

8No. of ground water samples from open wells / bore wells were collected from the nearby villages to assess ground water quality impacts and analyzed for various Physico-Chemical parameters. The analysis of samples shows that all the parameters are in accordance with BIS: 10500 specifications.

#### 2.3 Noise Levels

Noise levels were measured at 8 locations during day time & Night time. The noise levels at the monitoring stations are ranging from 47.35 dBA to 69.35 dBA.

#### 3.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

#### 3.1 Prediction of impacts on air quality

The likely emissions from the proposed project are  $PM_{10}$ ,  $SO_2$ , NOx& CO. The predictions of Ground level concentrations have been carried out using Industrial Source Complex (ISC-3) 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.

The predicted max. incremental rise in PM concentrations (24 hourly) will be  $0.43\mu g/m^3$  at a distance of 525 m from the origin stack in the down wind direction over the baseline concentrations and due the vehicular emission will be  $0.44\mu g/m^3$ . Total incremental rise in PM will be  $0.87\mu g/m^3$ .

The predicted max. incremental rise in  $SO_2$  concentrations (24 hourly) will be  $1.8\mu g/m^3$  at a distance of 525m from the origin stack in the down wind direction over the baseline concentrations.

The predicted max. incremental rise in NOx concentrations (24 hourly) will be  $2.9\mu g/m^3$  at a distance of 525 m from the origin stack in the down wind direction over the baseline concentrations and due the vehicular emission will be  $2.9\mu g/m^3$ . Total incremental rise in NOx will be  $5.8\mu g/m^3$ .

The predicted incremental rise in CO concentration due to the Vehicular emission will be  $2.3 \mu g/m^3$ .

Item				PM	SO <sub>2</sub>	NO <sub>x</sub>	СО	
					(~g/m³)	(~g/m³)	(~g/m³)	(~g/m <sup>3</sup> )
Maximum ba	Maximum baseline conc. in the study area					15.8	31.2	1558
Maximum predicted incremental rise in				0.41	2.2	2.8		
concentration due to the Unit # 1								

#### Table No.3.1 - NET RESULTANT MAXIMUM CONCENTRATIONS DUE TO PROPOSED PROJECT

Maximum	predicted	incremental	rise	in	0.44		2.9	2.3
concentration due to Vehicular emissions – Unit # 1								
Maximum	predicted	incremental	rise	in	0.43	1.8	2.9	
concentratio	on <b>due to the</b>	Unit # 2						
Maximum	predicted	incremental	rise	in	0.44		2.0	<b>^</b> 2
concentration due to Vehicular emissions – Unit # 2					0.44		2.9	2.5
Net resultant concentrations during operation of the				the	04.00	10.9	42.7	1562.6
plant					04.02	13.0	42.7	1302.0
National Ambient Air Quality Standards				100	80	80	2000	

#### 3.2 Prediction of impacts on Noise quality

The major noise generating sources in the proposed modification project are plant machinery and existing DG set. The plant & machinery will be of internationally reputed make and will be manufactured as per MoEF&CC / OSHA norms. The ambient noise levels will be within the standards prescribed by MoEF&CC 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. 2.06 Ha. (5.10 Acres) of area is earmarked for greenbelt to further attenuate the noise levels. Hence there will not be any adverse impact due to noise on population in surrounding areas due to the proposed modification project.

#### 3.3 Prediction of impacts on Water Environment

In the existing Rolling Mill, cooling water is being used directly, which generally gets contaminated by scale, grease and oil. Scales are being collected from scale pit, being stored & sent to the integrated steel plant at Champa, Chhattisgarh. Oil and grease are being skimmed from the water-settling tank and is being disposed to the recyclers. Same practices will be followed after the proposed modification also.

The water flows in closed system consisting of water tank (with settling compartments), pumps etc. and only makeup water is added to compensate for spillage and evaporation losses. There is no effluent generation as closed-circuit cooling system is adopted. Same practices will be followed after the proposed modification also.

Sanitary waste water is treated in Septic tank followed by soak pit. Same practices will be followed after the proposed modification also.

No water is being discharged outside the factory premises as per the statutory guidelines and Same practices will be followed after the proposed modification also.

Hence there will not be any adverse impact on ground water / surface water due to the proposed modification of project.

#### 3.4 Prediction of Impacts on Land Environment

The wastewateris being treated to achieve SPCB standards. Zero effluent discharge is being maintained in the existing plant. Same practice will be continued after the proposed modification also.All the required air pollution control systems have already been provided to comply with CPCB / SPCB norms. All solid wastes will be disposed / utilized as per CPCB / SPCB norms. 2.06 Ha. (5.10 Acres) of area is earmarked for greenbelt developed as per guidelines. Hence, there will not be any adverse impact on land environment due to the proposed modification project.

#### 3.5 Socio - Economic Environment

There will be further upliftment in Socio Economic status of the people in the area. Hence, there will be further development of the area due to the proposed project.

Due to this the economic conditions, the educational and medical standards of the people living in the study area will certainly move upwards which will result in overall economic development, improvement in general aesthetic environment and increase in business opportunities.

#### 4.0 ENVIRONMENTAL MONITORING PROGRAMME

Post project monitoring will be conducted as per the guidelines of SPCB and MoEF&CC are tabulated below:

S.No.	Particulars	Frequency of	Duration of	Parameters required to			
		Monitoring	sampling	be monitored			
1.	Water & Waste water quality						
Α.	Water quality in the	Quarterly once	Grab Sampling	As per IS: 10500			
	area		(24 hourly)				
В.	Effluent at the inlet &	Once in a month	Grab sampling	As per EPA Rules, 1996			
	outlet of the ETP		(24 hourly)				
C.	Sanitary Wastewater	Twice in a month	Grab sampling	As per EPA Rules, 1996			
2.	Air Quality						

 Table No.4.1 - Monitoring Schedule for Environmental Parameters



### **Prakash Industries Limited**

[Wire Rod Mill Division **Unit # 2**]

New Industrial Area, Ring Road No. 2, Village: Gogaon, Tehsil: Raipur, District: Raipur, Chhattisgarh

S.No.	Particulars	Frequency of	Duration of	Parameters required to
		Monitoring	sampling	be monitored
Α.	Stack Monitoring	CEMS	Continuous	PM
		Once in a month		$PM_{10}$ , $SO_2$ & $NO_x$
В.	Ambient Air quality	CAAQMS	Continuous	PM <sub>2.5</sub> , PM <sub>10</sub>
		Once in a month	24 hours	PM <sub>2.5</sub> , PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> &
			continuously	СО
С.	Fugitive Emission	Once in a month		PM
3.	Meteorological Data			
	Meteorological data to	Daily	Continuous	Temperature, Relative
	be monitored at the		monitoring	Humidity, rainfall, wind
	plant.			direction & wind speed
4.	Noise Levels Monitoring			
Α.	Ambient Noise Levels	Once in a month	Continuous for	Noise levels
		(Hourly)	24 hours with	
			1-hour interval	

#### 5.0 ADDITIONAL STUDIES

No Rehabilitation and Resettlement is involved in the proposed project. Hence no R & R study has been carried out.

#### 6.0 PROJECT BENEFITS

With the establishment of the proposed project employment potential will increase. Land prices in the area will increase. The economic status of the people in the area will improve due to the proposed project. Periodic medical checkups will be carried out. Top priority will be given to locals in employment.

#### 7.0 ENVIRONMENT MANAGEMENT PLAN

#### 7.1 Air Environment

The following are air emission control systems proposed in the proposed project:

S.No.	Stack attached to	No. of Stacks	Height (in M)	Control Equipment	Particulate emission at the outlet
1.	Stack attached to coal gasifiers & Rolling Mill # 1	1	35	Cyclone separator	<30 mg/Nm <sup>3</sup>
2.	Stack attached to coal gasifiers & Rolling Mill # 2	1	35	Cyclone separator	<30 mg/Nm <sup>3</sup>

#### Table No.7.1 – Air Emission Control System

#### 7.2 Water Environment

In the existing Rolling Mill, cooling water is being used directly, which generally gets contaminated by scale, grease and oil. Scales are being collected from scale pit, being stored & sent to the integrated steel plant at Champa, Chhattisgarh. Oil and grease are being skimmed from the water-settling tank and is being disposed to the recyclers. Same practices will be followed after the proposed modification also.

The water flows in closed system consisting of water tank (with settling compartments), pumps etc. and only makeup water is added to compensate for spillage and evaporation losses. There is no effluent generation as closed-circuit cooling system is adopted. Same practices will be followed after the proposed modification also.

Sanitary waste water is treated in Septic tank followed by soak pit. Same practices will be followed after the proposed modification also.

No water is being discharged outside the factory premises as per the statutory guidelines and Same practices will be followed after the proposed modification also.

#### 7.3 Noise Environment

The major noise generating sources in the proposed modification project are plant machinery and existing DG set. The plant & machinery will be of internationally reputed make and will be manufactured as per MoEF&CC / OSHA norms. All the machinery will be manufactured in accordance with MoEF&CC norms on Noise levels. The employees working near the noise generating sources will be provided with earplugs. 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.

#### 7.4 Land Environment

The wastewateris being treated to achieve SPCB standards. Zero effluent discharge is being maintained in the existing plant. Same practice will be continued after the proposed modification also. All the required air pollution control systems have already been provided to comply with CPCB / SPCB norms. All solid wastes will be disposed / utilized as per CPCB / SPCB norms. 2.06 Ha. (5.10 Acres) of area is earmarked for greenbelt developed as per

guidelines. Hence, there will not be any adverse impact on land environment due to the proposed modification project.

S.No.	Solid waste	Quantit	y (in TPA)	Sources	Mode of Transport			
	generated	Existing	Proposed					
Rolling Mill # 1								
1.	End Cutting	10800	4200	It will be sent to steel plant at Champa or may be sold in the Market to re-rollers.	By road (through Trucks / Trailers)			
2.	Mill Scale	3600	1400	It will be sent to steel plant at Champa may be sold in the Market to melt in Furnaces.	By road (through Trucks / Trailers)			
3.	Miss Roll	1800	700	It will be sent to steel plant at Champa or may be sold in the Market to re-rollers.	By road (through Trucks / Trailers)			
4.	Ash / Cinder	5590		Will be given to Brick manufactures	By road			
Rolling Mill # 2								
5.	End Cutting	15000		It will be sent to steel plant at Champa or may be sold in the Market to re-rollers.	By road (through Trucks / Trailers)			
6.	Mill Scale	5000		It will be sent to steel plant at Champa may be sold in the Market to melt in Furnaces.	By road (through Trucks / Trailers)			
7.	Miss Roll	2500		It will be sent to steel plant at Champa or may be sold in the Market to re-rollers.	By road (through Trucks / Trailers)			
8.	Ash / Cinder	5590		Will be given to Brick manufactures	By road			

#### Table No. 7.2 - Solid waste generation and its management

#### 7.5 Greenbelt Development

Greenbelt of 2.06 Ha. (5.10 Acres)is earmarked for greenbelt developed in the plant premises.10 m to 99 m wide greenbelt around the plant is being developed around the plant periphery & within the plant premises.

#### 7.6 Cost for Environment Protection

Existing Environment Management Protection is adequate after the proposed modification in the existing Rolling Mills also. Hence no additional Capital Cost for Environment Protection for proposed plant is envisaged. However Recurring Cost per annum for Environmentalprotection earmarked is Rs.15.33Lakhs/annum.

#### 7.7 Implementation of CREP Recommendations

All the CREP recommendations will be strictly followed.