

---

**Haryana State Pollution Control Board**  
C-11, Sector-6, Panchkula  
Website – [www.hspcb.org.in](http://www.hspcb.org.in)  
E-Mail - [hspcb.ho@gmail.com](mailto:hspcb.ho@gmail.com)  
Tele. No. – 0172-2577870-73

---

11-07-

To

The Director General,  
Information, Public Relations  
& Cultural Affairs Department,  
Haryana, Chandigarh.

**Sub: Regarding conducting Public Hearing for obtaining Environment Clearance of our "Proposed Cold Rolling Mill Complex With Galvanizing and colour coating line having total Capacity of various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla- Tatarpur Road, Village-Tatarpur, Palwal, Haryana over ab area of 127294.69 Sq.m By Jyoti Strips Pvt. Ltd.**

I have been directed to enclose herewith an advertisement regarding Public Hearing to be held on **16.08.2024 at 11:00 AM** in respect to Environment Clearance for the unit M/s Jyoti Strips Pvt. Ltd. as per provision of EIA notification 2006 (amended thereof) for publication in the following leading newspapers on DAVP rates:-

1. One major national daily newspaper
2. One Regional Vernacular daily newspaper in Hindi.

The advertisement should appear on or before **15.07.2024** in the above said two newspapers only and bill of above two newspapers on DAVP rates may be sent to this office at the earliest. The bill payment of above said notice will be made for two newspapers only.

**DA/Advertisement**

Signed by

Vikas Chand

Date: 12-07-2024 12:13:28  
**Env Engineer (HQ)**  
**For Member Secretary****CC:**

A copy of the above is forwarded to the following for information and necessary action:-

1. Deputy Commissioner, Palwal is requested to preside over the public hearing.
2. The Chairman, Zila Parishad, District, Palwal.
3. Municipal Council / Corporation District, Palwal for display on Notice Board.
4. District Development and Panchayat Officer, Palwal
5. Deputy Director, District Industries Centre, Palwal.

**DA/Advertisement.**

**Env. Engineer (HQ)  
For Member Secretary**

**CC:**

A copy of the above is forwarded to the following alongwith copy of EIA report and Executive Summary and CD for sending the same to the concerned authorities mentioned above to place the same in their offices for consultation of the general public during office hours:-

1. Regional Officer, Haryana State Pollution Control Board, II-Floor, HSVP Office Complex, Near Gymkhana Club, Sector-12, Palwal-121102.
2. M/s Jyoti Strips Private Limited Kola No. 4 to 24, Prithla- Tatarpur Road, Village- Tatarpur, Palwal, Haryana Palwal-121102.
3. Sr. EE (IT) to ensure that the notice is uploaded on the website of the Board.

**DA/Advertisement.**

**Env. Engineer (HQ)  
For Member Secretar**

**CC:**

A copy of the above is forwarded to the following for information please:-

1. The Additional Chief Secretary to Govt. Haryana, Environment, Forest & Wildlife Department.
2. The Director General, Environment, Forest & Wildlife Department, Haryana.
3. PS to Chairman / PA to Member Secretary.

**DA/Advertisement**

**Env. Engineer (HQ)  
For Member Secretary**

**HARYANA STATE POLLUTION CONTROL BOARD**  
**C-11, SECTOR-6, PANCHKULA**  
**Website-www.hspcb.org.in**  
**E-Mail- hspcb-solidwaste@gmail.com**  
**Tele Fax No. - 0172-2577870-73**

**Notice for Public Hearing**

It is for the information of all concerned regarding conducting the Public Hearing for obtaining Environment Clearance of the "Proposed Cold Rolling Mill Complex With Galvanizing and colour coating line having total Capacity of various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla- Tatarpur Road, Village-Tatarpur, Palwal, Haryana over an area of 127294.69 Sq.m by M/s Jyoti Strips Pvt. Ltd. The project is covered under the ambit of Environment Impact Assessment Notification dated 14th Sep, 2006 issued by the Ministry of Environment, Forest and Climate Change Department, GOI, thus the proposed project requires to obtain Environmental Clearance. The detail of unit/project, date, time and venue of Public Hearing is given as under:

Sr. No.	Name of the project proponent	Date of Public Hearing	Time of Public Hearing	Venue of Public Hearing
1.	M/s Jyoti Strips Private Limited Kola No. 4 to 24, Prithla- Tatarpur Road, Village- Tatarpur, Palwal, Haryana Palwal-121102, as per TORs issued by the Member Secretary, State Level Environment Impact Assessment Authority Haryana vide his letter no. EIAA/HR/2023/426 dated 27.10.2023	16.08.2024	11:00 AM	Village Tatarpur, Palwal, Haryana-121102

As a part of procedure for seeking the Environmental clearance, notified by the Ministry of Environment, Forest & Climate Change Department, Govt. of India, New Delhi vide Notification No. S.O. 1533 (E), dated 14.9.2006, the project proponent mentioned above have applied to the Haryana State Pollution Control Board, for conducting a Public Hearing so as to obtain views, suggestions and objection, if any, **of the nearby Public on the proposed project. Copies of executive summary of the project and EIA study report, submitted by the project proponent, are available in the following officers which can be perused during office hours, on any working day :-**

1. Deputy Commissioner, Palwal.
2. Regional Officer, Haryana State Pollution Control Board, , II- Floor, HSVP Office Complex, Near Gymkhana Club, Sector-12, Palwal-121102.

I/253909/2024

3. O/o Chairman, Zila Parishad, Palwal.
4. O/o Commissioner, Municipal Council, Palwal.
5. District Development and Panchyat Officer, Palwal.
6. Deputy Director, District Industries Centre, Palwal.

Notice is hereby given to all concerned to file suggestions, views, comments and objections, if any, on the proposed project, to the Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula as well as Regional Officer, Haryana State Pollution Control Board, II- Floor, HSVP Office Complex, Near Gymkhana Club, Sector-12, Palwal-121102 within 30 days of the publication of this notice. Besides, a Public Hearing also will be held on the Date, Time & Venue mentioned above **at the proposed site** of the project, which can be attended by any person including bonafide residents, Environmental Groups, and others, located at the project site/sites of displacement/sites likely to be affected. Oral/Written suggestions, if any be admissible for attending the Public Hearing.

No TA/DA will be admissible for attending the Public Hearing.

**Pardeep Kumar, IAS**  
**Member Secretary**

**JYOTI STRIPS PRIVATE LIMITED**

Corporate Office ▲ Velika Mindscapes,  
Block-B, 3rd Floor, 12/3 Mathura Road,  
NH-2, Sector-27D, Faridabad  
Haryana-121003  
Phone : 0129-4323650  
E-mail : mo@jyotistrrips.com

**Date: -**

**To,**  
**The Member Secretary,**  
**Haryana State Pollution Control Board,**  
**C-11, Sector-6, Panchkula, Haryana 134109**

**Sub: - Regarding for conduction of Public Hearing with respect to Environmental Clearance of our "Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prit hla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m. by Jyoti Strips Pvt. Ltd.**

**Ref: - ToR (Terms of Reference) is issued by SEIAA, Haryana vide letter no. File No. SEIAA/HR/2023/426 dated 27.10.2023**

Sir,

In regards to above, we hereby request you to kindly expedite the process of public hearing of our "Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prit hla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m. by Jyoti Strips Pvt. Ltd. TOR has been issued by SEIAA, Haryana of vide letter above reference. We are enclosing the following documents:-

- 10 sets of English Executive Summary.
- 10 sets of Hindi (Local language) Executive Summary.
- 10 sets of Draft EIA/ EMP Report (including Form-1 and compliance of TOR).
- 10 sets of Soft copy.
- A DD of Rs. 1,50,000 in favour of Member Secretary, Haryana State Pollution Control Board, Panchkula as fee for conduction of PH vide DD No. 193945 dated 22-Apr-2024 drawn from Yes Bank, Faridabad.

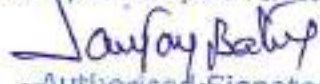
We request your good self to kindly consider the same and decide a suitable date for conduction of public hearing at the earliest.

Thanking You

Yours truly,

For Jyoti Strips Pvt. Ltd

For Jyoti Strips Pvt. Ltd,

  
(Sanjay Batra) Authorized Signatory

Chief executive head

Encl: As above

CC:-Regional Officer, HSPCB-Palwal Region.



**JYOTI STRIPS PRIVATE LIMITED**

Corporate Office: Vaatika Mindscapes,  
Block-B, 3rd Floor, 12/3 Mathura Road,  
NH-2, Sector-27D, Faridabad,  
Haryana-121003  
Phone : 0128-4323650  
Email : md@jyotistrrips.com

**Date - 23-Apr-2024**

To,  
The Member Secretary,  
Haryana State Pollution Control Board,  
C-11, Sector-6, Panchkula, Haryana 134109

**Subject:** Submission of DD in compliance of Public hearing Fee according to Haryana State pollution control board Fee structure

**Reference:** . ToR (Terms of Reference) is issued by SEIAA, Haryana vide letter no. File No. SEIAA/HR/2023/426 dated 27.10.2023

Dear Sir,

We would like to submit scrutiny fee of Rs 1,50,000/- (One Lakh 50 Thousand) in form of DD issued by Yes Bank dated 22-Apr-2024 vide **DD No. 193945** for our proposed project of Cold Rolling Mill Complex with Galvanizing and color coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m. by Jyoti Strips Private Limited.

We request you to please acknowledge the same

We request your good self to kindly consider the same and decide a suitable date for conduction of public hearing at the earliest.

**For Jyoti Strips Pvt. Ltd.**

For Jyoti Strips Pvt. Ltd.

  
Authorized Signatory

Sanjay Batra

(Chief Executive Head)



MAIL TO

THE MEMBER SECRETARY HARYANA STATE  
POLLUTION CONTROL  
NR.LTD

PAYMENT DETAILS

THE MEMBER SECRETARY HARYANA STATE PO

We enclose Demand Draft No. : **193945**

dated **22-Apr-2024**

\*1,50,000.00

as per the above payment details.

BY ORDER OF

JYOTI STRIPS PRIVATE LIMITED  
BANK 007013024326  
PAYMENT PANCIKULLA, HARYANA

This is Computer Generated advice and does not require signature

**DEMAND DRAFT**

VALID FOR THREE MONTHS FROM DATE OF ISSUE

Date 

2	0	4	2	0	2	4
---	---	---	---	---	---	---

**YES BANK LIMITED**  
YES BANK House, Off Western Express Highway  
Sambhar IEL Number - 400055, India  
Tel No: 022 50919800/022 6907 9800  
Fax No: 022 26192866

On Demand Pay

THE MEMBER SECRETARY HARYANA STATE POLLUTION CONTROL, BOARDOR Order

Rupees **ONE LAKH FIFTY THOUSAND ONLY**

₹ **\*\*1,50,000.00\***

Purchaser Name: JYOTI STRIPS PRIVATE LIMITED



YES BANK LTD

DRAVEE BANK AND BRANCH I.L.A. HARYANA ISSUING BANK AND BRANCH HARYANA

For YES BANK LTD.

*[Signature]*  
AUTHORISED SIGNATORY (ES)

IFSC 000532000000

15

22/04/2024

PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CONTENT
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

### TABLE OF CONTENT

S. No.	CONTENTS	Page Nos.
1.	Executive Summary-English	i-xix
2.	Executive Summary-Hindi	i-xix
3.	TOR COMPLIANCE	I - XXI
4.	EIA/ EMP REPORT	1-219
5.	CHAPTER - 1 INTRODUCTION	1-9
6.	CHAPTER-2 PROJECT DESCRIPTION	10-32
7.	CHAPTER-3 DESCRIPTION OF THE ENVIRONMENT	33-93
8.	CHAPTER-4 ANTICIPATED ENVIRONMENTAL IMPACT & MITIGATION MEASURES	94-138
9.	CHAPTER-5 ANALYSIS OF ALTERNATIVES	139-142
10.	CHAPTER-6 ENVIRONMENT MONITORING PROGRAMME	143-156
11.	CHAPTER-7 ADDITIONAL STUDIES	157-178
12.	CHAPTER-8 PROJECT BENEFITS	179-183
13.	CHAPTER-9 ENVIRONMENTAL COST BENEFIT ANALYSIS	184-186
14.	CHAPTER-10 ENVIRONMENTAL MANAGEMENT PLAN	187-204
15.	CHAPTER-11 SUMMARY & CONCLUSION	205-212
16.	CHAPTER-12 DISCLOSURE OF CONSULTANTS ENGAGED	213-219
<b>ANNEXURES</b>		
ANNEXURE I	STANDARD TOR	220-231
ANNEXURE II	TOPOGRAPHICAL MAP	232
ANNEXURE III	LULC MAP	233
ANNEXURE IV	LAND DOCUMENTS	234- 252
ANNEXURE V	FLOOD MAP	253
ANNEXURE VI	PLANT LAYOUT	254
ANNEXURE VII (i)	BASELINE MONITORING REPORT	255-284
ANNEXURE VII (ii)	BASELINE MONITORING STATION MAP	285
ANNEXURE VIII	ENVIRONMENTAL POLICY	286-287
ANNEXURE IX	AUTHORISED LETTER FOR CONSULTANT	288
ANNEXURE X	LIST OF DIRECTORS	289
ANNEXURE XI	BOARD RESOLUTION	290
ANNEXURE XII	LOCATION MAP	291
ANNEXURE XIII	NABET CERTIFICATE	292





PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CONTENT

<b>ANNEXURE XIV</b>	OCUUPATION CERTIFICATE	<b>293-294</b>
<b>ANNEXURE XV</b>	FIRE LAYOUT	<b>295</b>
<b>ANNEXURE XVI</b>	CONTOUR MAP	<b>296</b>
<b>ANNEXURE XVII</b>	PHOTORGRAPHS OF PROPOSED SITE	<b>297</b>

\*\*\*\*\*



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

## EXECUTIVE SUMMARY (ENGLISH)

### OF

"Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana"

Project Area: -127294.69 sq.m.; Proposed Project Cost: Rs 800 Cr;

### PROPOSAL FOR PUBLIC HEARING

("B" Category under activity 3(a) of EIA Notification dated 14.09.2006 and its subsequent amendments)

#### JYOTI STRIPS PRIVATE LIMITED

Authorized Signatory: - Sanjay Batra (Chief executive head)

Registered Address : Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana.

Phone No.: - 9811840212; Email: - sanjaybatra@Jyotistrrips.com



### ENVIRONMENTAL CONSULTANT

**ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR**

**Accredited EIA Consultant Organization by NABET, QCI, New Delhi at S. No. 60 (MoEF&CC)**

**(List of Accredited EIA Consultant Organizations (as on 16th April, 2024);**

**Validity: -Up to 04.06.2024)**

**Corporate Office: -# 92 Heera Nagar - A, Near Shalimar Bagh,**

**Ajmer Road, Jaipur (Raj.). - 302 021**

**Phone: - 0141-4920770, 4920771;**

**Email: - [info@enkayenviro.com](mailto:info@enkayenviro.com); Website: - [www.enkayenviro.com](http://www.enkayenviro.com)**



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL/2024

i

60

PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

## 1.0 EXECUTIVE SUMMARY

### 1.1 EXECUTIVE SUMMARY

Jyoti Strips Private Limited is a Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m.

The proposed project is categorized under item 3(a) Metallurgical industries (ferrous & nonferrous) of Schedule, EIA Notification dated Sep 14th, 2006 and its subsequent amendments issued by MOEF&CC. The project is categorized as B-1 category. Public Hearing will be conducted as per EIA Notification 14th September' 2006 and its subsequent amendments.

### 1.2 ENVIRONMENTAL SETTING

S. No.	Particulars	Details																
1.	Name of the Project	Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA																
2.	Applicant	Jyoti Strips Private Limited																
3.	Location	located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana.																
4.	Plot Area	127294.69 Sq.m.(No additional land is required)																
5.	Land Type	Industrial Land																
7.	Toposheet No.	53H/3,4,7&8																
8.	Terrain & Elevation	Flat terrain with Highest - 198 MSL; Lowest - 192 MSL.																
9.	Nearest Habitation	Tatarpur, 0.43 Km, SE																
10.	Nearest Major Town	Town: Palwal, 8.17, S																
14.	Nearest Tourist Places	None within the study area.																
15.	Defense Installations	None within the study area.																
16.	Archaeological Sites	None within the study area.																
17.	Eco-sensitive Zones	None within the study area.																
18.	Reserved/ Protected Forest	None within 10 km from project site																
19.	Nearest Streams/ Rivers/ Water Bodies	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Particulars</th> <th>Distance (Km)</th> <th>Direction</th> </tr> <tr> <th colspan="4">(From Project Boundary)</th> </tr> <tr> <th colspan="4">Water Bodies</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Pahladpur Distributary</td> <td>1.15 Km</td> <td>NNE</td> </tr> </tbody> </table>	S. No.	Particulars	Distance (Km)	Direction	(From Project Boundary)				Water Bodies				1.	Pahladpur Distributary	1.15 Km	NNE
S. No.	Particulars	Distance (Km)	Direction															
(From Project Boundary)																		
Water Bodies																		
1.	Pahladpur Distributary	1.15 Km	NNE															



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

ii

71

PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

2.	Baghaura Minor	1.70 Km	SE
3.	Ballabgarh Distributary	3.77 Km	NNE
4.	Agra Canal	4.13 Km	E
5.	Sikri Distributary	4.35 Km	N
6.	Gaunchhi Drain	4.35 Km	W
7.	Janauli Distributary	4.68 Km	SSE
8.	Dhatir Distributary	5.59 Km	W
9.	Rampur Distributary	6.64 Km	E
10.	Chandpur Minor	6.94 Km	W
11.	Palwal Distributary	7.82 Km,	SSE
12.	Utawar Distributary	8.76 Km	SW
13.	Sikrona Distributary	9.25 Km	NNW

*(Source: All distances are taken with respect to S.O.I. GT Sheet).*

20.	Medical facilities and educational facilities	Dispensary and Govt. Hospital and education facility are given below:-																																																				
		<table border="1"> <thead> <tr> <th>S. No.</th> <th>Name</th> <th>Distance (From Project Boundary)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;"><b>Medical Facility</b></td> </tr> <tr> <td>1.</td> <td>Nobel Charitable Hospital - GT Road, Prithla</td> <td>1.16 Km</td> <td>W</td> </tr> <tr> <td>2.</td> <td>ESI Dispansary Prithla</td> <td>1.67 Km</td> <td>WNW</td> </tr> <tr> <td>3.</td> <td>Shri Hari Hospital, Tatarpur</td> <td>1.67 Km</td> <td>WNW</td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>Schools</b></td> </tr> <tr> <td>1.</td> <td>Govt Primary School Tatarpur</td> <td>0.48 Km</td> <td>ESE</td> </tr> <tr> <td>2.</td> <td>Govt. Primary School Jatola</td> <td>0.58 Km</td> <td>NNE</td> </tr> <tr> <td>3.</td> <td>BDM Public School, Tatarpur</td> <td>0.66 Km</td> <td>E</td> </tr> <tr> <td>4.</td> <td>GPS Prithla</td> <td>1.27 Km</td> <td>W</td> </tr> <tr> <td>5.</td> <td>Govt.Girl High School Prithla</td> <td>1.40 Km</td> <td>W</td> </tr> <tr> <td>6.</td> <td>Chotu Ram Public School Prithla</td> <td>1.60 Km</td> <td>WNW</td> </tr> <tr> <td>7.</td> <td>Govt Girls Sr. Sec. School, Prithla</td> <td>1.70 Km</td> <td>WNW</td> </tr> </tbody> </table>	S. No.	Name	Distance (From Project Boundary)	Direction	<b>Medical Facility</b>				1.	Nobel Charitable Hospital - GT Road, Prithla	1.16 Km	W	2.	ESI Dispansary Prithla	1.67 Km	WNW	3.	Shri Hari Hospital, Tatarpur	1.67 Km	WNW	<b>Schools</b>				1.	Govt Primary School Tatarpur	0.48 Km	ESE	2.	Govt. Primary School Jatola	0.58 Km	NNE	3.	BDM Public School, Tatarpur	0.66 Km	E	4.	GPS Prithla	1.27 Km	W	5.	Govt.Girl High School Prithla	1.40 Km	W	6.	Chotu Ram Public School Prithla	1.60 Km	WNW	7.	Govt Girls Sr. Sec. School, Prithla	1.70 Km	WNW
S. No.	Name	Distance (From Project Boundary)	Direction																																																			
<b>Medical Facility</b>																																																						
1.	Nobel Charitable Hospital - GT Road, Prithla	1.16 Km	W																																																			
2.	ESI Dispansary Prithla	1.67 Km	WNW																																																			
3.	Shri Hari Hospital, Tatarpur	1.67 Km	WNW																																																			
<b>Schools</b>																																																						
1.	Govt Primary School Tatarpur	0.48 Km	ESE																																																			
2.	Govt. Primary School Jatola	0.58 Km	NNE																																																			
3.	BDM Public School, Tatarpur	0.66 Km	E																																																			
4.	GPS Prithla	1.27 Km	W																																																			
5.	Govt.Girl High School Prithla	1.40 Km	W																																																			
6.	Chotu Ram Public School Prithla	1.60 Km	WNW																																																			
7.	Govt Girls Sr. Sec. School, Prithla	1.70 Km	WNW																																																			
		<i>(Source: All distances are taken with respect to S.O.I. GT Sheet).</i>																																																				
21.	Seismic Zone	As per the 2002 Bureau of Indian Standards (BIS) seismic zone map of India, categorized as "High Damage Risk" Zone-IV.																																																				

**2.1 BASIC REQUIREMENTS**

The basic requirement for the project is given below:-

**Table 2: Basic Requirements**

S. No.	Particulars	Details		
1.	Project Type	Greenfield		
2.	Area (Sq.m)	127294.69 Sq.m (No additional land acquired).		
3.	Power and fuel	<b>Phase</b>	<b>Demand</b>	<b>Source</b>

ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

iii

82



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

	Demand	<b>Electricity</b>		
		Power demand	15 MVA	DHBVN (Nearest GSS - 4.18 km SSE)
		<b>Fuel (for machinery operations)-</b>		
		<b>Fuel</b>	<b>Demand</b>	<b>Source</b>
		CNG	4441.8 TPA	GAIL (India) Limited (Through pipeline)
<b>Source:</b> Power Demand is being met from AVVNL Two DG set of 1000 KVA will use in the emergency situation/ power failure.				
4.	Water requirement	Total one time Water demand: 750 KLD Proposed-Fresh water Demand-450 KLD (Industry: 382.5, Domestic: 67.5 KLD and) Recycled Water -300 KLD		
5.	Manpower	Construction Phase 350 Nos (direct-50, indirect/contractual-300); Operation Phase (direct-300, indirect/contractual-1700) - 2000 Nos.		

### 3.1 PROJECT DETAILS

#### 3.1.1 RAW MATERIALS REQUIRED ALONG WITH ESTIMATED QUANTITY, LIKELY SOURCE AND MODE OF TRANSPORTATION OF RAW MATERIALS.

Following Raw Materials will be required for the cold rolling mill complex.

**Table 3 (a): List of raw materials required**

S. No.	Raw Material	Proposed	Total	Source	Mode of transport	Remarks
		Consumption				
1.	HR Coil	8,40,000TPA	8,40,000TPA	from Tata steel Limited, SAIL, Jindal Steel and Power Limited, Jindal Steel Limited	Transported by Trucks	Local Market

#### Details of Chemicals

S.No.	Chemical	Capacity
1.	Lime	20 TPD
2.	Caustic Soda	200 Lt/day

#### 3.1.2 PRODUCTS

The proposed products in the plant are given below:

**Table 4: List of products**

S. No.	Name	Proposed Capacity (TPA)	Total Capacity (TPA)
a)	HRPO coils/sheets	120000	120000
b)	Cold rolled full hard coils	60000	60000
c)	CRCA coils/sheets	90000	90000



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

iv

93

PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

d)	Galvanized/galvalume coils	240000	240000
e)	Colour coated coils	120000	120000
f)	CDW	30000	30000
g)	HR tube	30000	30000
h)	CR tube	60000	60000
i)	Stamping	30000	30000
<b>Total capacity</b>		<b>780,000</b>	

### 3.1.3 LAND USE PATTERN

The total land area is **127294.69** Sq. m.

**Table 5: Land use break up**

S. No.	Land Use	Area (Sq.m)	Percentage (%)
		Proposed Area	
1.	Plant Area	55219.97	43.38
2.	Paved Area (Road, Corridor, )	35,997.62	28.27
3.	Green Area	36,077.10	28.35
4.	Open area	0.0	0.0
<b>Total</b>		<b>127294.69</b>	<b>100</b>

*The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.*

### 4.1 STUDY AREA AT A GLANCE

The study area comprises of 66 villages in the (10.0 Km) of the study area. The total population of the study area is 4,80,539 accommodating 83,592 in households with an average household's size of approx. 6 members per family.

### 4.2 DEMOGRAPHY

**Table 6: Demographic profile of the study area**

S. No.	Particulars	Details
1.	No. of Villages	<b>66</b>
2.	Total Population	<b>480539</b>
	a. Male	255887
	b. Female	224652
3.	No. of Households	<b>83592</b>
4.	No. of Literates	<b>313956</b>
	a. Male	188169
	b. Female	125787
5.	Main Workers	105992
	a. Male	<b>93631</b>
	b. Female	12360
6.	Marginal Workers	29782
	a. Male	<b>21100</b>
	b. Female	8682



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

v

10

PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

7.	Non-workers		344765
	a.	Male	141156
	b.	Female	203609

**4.4 L****AND USE PATTERN OF THE STUDY AREA OF 10.0 KM RADIUS FROM THE PROJECT SITE****Table 7: LULC Classification**

Catogery	Sub.Catogery	Sum	Area In %
Builtup	Brick Kiln	246.99	0.74
	Builtup	10982.97	33.11
	Industrial Area	2411.10	7.27
Agricultural land	Cropland	9870.86	29.76
	Fallowland	7653.41	23.08
Plantation	Plantation	1702.31	5.13
Waterbody	WB	299.72	0.90
Grand Total		<b>33167.34</b>	<b>100</b>

**4.5 AMBIENT AIR MONITORING**All values are in  $\mu\text{g}/\text{m}^3$ 

S. No.	Locations	Pollutant	Minimum	Maximum	Average	98 <sup>th</sup> Percentile	CPCB Standards
1	Project site	PM <sub>10</sub> $\mu\text{g}/\text{m}^3$	73.40	84.90	78.76	84.20	100
		PM <sub>2.5</sub> $\mu\text{g}/\text{m}^3$	43.60	52.60	47.79	52.33	60
		SO <sub>2</sub> $\mu\text{g}/\text{m}^3$	3.13	6.12	4.49	5.88	80
		NO <sub>2</sub> $\mu\text{g}/\text{m}^3$	7.15	12.14	9.10	11.85	80
		CO $\mu\text{g}/\text{m}^3$	0.21	0.51	0.34	0.50	2000
2	Devali	PM <sub>10</sub> $\mu\text{g}/\text{m}^3$	65.40	82.40	72.38	80.08	100
		PM <sub>2.5</sub> $\mu\text{g}/\text{m}^3$	39.60	46.50	42.38	46.28	60
		SO <sub>2</sub> $\mu\text{g}/\text{m}^3$	3.98	6.12	4.94	5.98	80
		NO <sub>2</sub> $\mu\text{g}/\text{m}^3$	7.55	13.54	10.09	13.47	80
		CO $\mu\text{g}/\text{m}^3$	0.25	0.61	0.42	0.57	2000
3	Asawati	PM <sub>10</sub> $\mu\text{g}/\text{m}^3$	64.2	77.3	70.08	76.81	100
		PM <sub>2.5</sub> $\mu\text{g}/\text{m}^3$	39.4	46.9	42.35	46.2	60
		SO <sub>2</sub> $\mu\text{g}/\text{m}^3$	3.98	5.81	4.85	5.81	80
		NO <sub>2</sub> $\mu\text{g}/\text{m}^3$	8.01	12.16	9.52	11.72	80
		CO $\mu\text{g}/\text{m}^3$	0.24	0.62	0.39	0.6	2000
4	Pyala	PM <sub>10</sub> $\mu\text{g}/\text{m}^3$	64.2	76.8	70.13	75.77	100
		PM <sub>2.5</sub> $\mu\text{g}/\text{m}^3$	38.5	46.1	41.93	45.94	60
		SO <sub>2</sub> $\mu\text{g}/\text{m}^3$	3.36	6.86	5.16	6.74	80
		NO <sub>2</sub> $\mu\text{g}/\text{m}^3$	7.24	14.58	11.54	14.47	80
		CO $\mu\text{g}/\text{m}^3$	0.25	0.65	0.51	0.65	2000
5	Dundsas	PM <sub>10</sub> $\mu\text{g}/\text{m}^3$	67.3	78.5	72.21	77.37	100
		PM <sub>2.5</sub> $\mu\text{g}/\text{m}^3$	39.5	47.3	42.56	47.08	60
		SO <sub>2</sub> $\mu\text{g}/\text{m}^3$	4.52	15.4	7.27	14.21	80
		NO <sub>2</sub> $\mu\text{g}/\text{m}^3$	6.88	18.1	11.17	16.97	80
		CO $\mu\text{g}/\text{m}^3$	0.25	0.59	0.39	0.55	2000
6	Gadpuri	PM <sub>10</sub> $\mu\text{g}/\text{m}^3$	66.4	73.5	70.35	73.45	100
		PM <sub>2.5</sub> $\mu\text{g}/\text{m}^3$	35.1	67.4	41.33	54.49	60
		SO <sub>2</sub> $\mu\text{g}/\text{m}^3$	3.15	7.24	4.9	6.81	80
		NO <sub>2</sub> $\mu\text{g}/\text{m}^3$	7.25	13.12	9.98	12.96	80

ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

vi

15



		CO	$\mu\text{g}/\text{m}^3$	0.25	0.64	0.44	0.63	2000
7	Pirthala	PM <sub>10</sub>	$\mu\text{g}/\text{m}^3$	66.5	74.1	70.09	73.78	100
		PM <sub>2.5</sub>	$\mu\text{g}/\text{m}^3$	35.9	43.5	39.9	43.45	60
		SO <sub>2</sub>	$\mu\text{g}/\text{m}^3$	5.36	10.68	7.59	10.64	80
		NO <sub>2</sub>	$\mu\text{g}/\text{m}^3$	8.24	14.78	11.2	14.67	80
		CO	$\mu\text{g}/\text{m}^3$	0.28	0.59	0.4	0.59	2000
8	Baghaura	PM <sub>10</sub>	$\mu\text{g}/\text{m}^3$	64.1	76.8	71.93	76.8	100
		PM <sub>2.5</sub>	$\mu\text{g}/\text{m}^3$	36.5	47.2	41.86	46.93	60
		SO <sub>2</sub>	$\mu\text{g}/\text{m}^3$	5.34	13.4	7.7	12.37	80
		NO <sub>2</sub>	$\mu\text{g}/\text{m}^3$	8.2	16.45	11.86	15.98	80
		CO	$\mu\text{g}/\text{m}^3$	0.22	0.62	0.45	0.61	2000

The results of the monitored data indicate that the ambient air quality (AAQ) of the region in general is in conformity with respect to norms of National Ambient Air Quality standards, at all locations monitored.

#### 4.6 WATER MONITORING

Eight Ground water samples around the project Area were collected and analyzed. The analytical results are given below for various parameters as per the procedures specified in "Standard Methods for the Examination of Water and Wastewater" published by American Public Health Association (APHA).

- The analysis results of eight ground water samples showed the pH in range of 6.92 - 7.60 indicating alkaline nature of ground water.
- Color and turbidity of the samples ranged from <1 Hazens and <1 NTU respectively.
- The total hardness of the samples ranged from 132 mg/l -180 mg/l. The minimum value was observed in (GW6) and whereas the maximum value observed at (GW7).
- Calcium and magnesium concentrations ranged from 23 -38.88 mg/l and 19.93 - 26.06 mg/l respectively.
- The dissolved solids of the samples ranged from 421mg/l -598 mg/l. The maximum value was observed at G-7 and whereas the minimum value observed at G-6.
- Range of chlorides and sulphate concentrations at all the locations 102.25 mg/l - 210mg/l and 15.72 mg/l -22.63 mg/l respectively.
- Fluoride concentration ranged from 0.25mg/l -0.84 mg/l.
- Nitrates are also found ranging in between 3.82mg/l -8.17mg/l.
- Iron concentrations in ground water varied from 0.11-0.16 mg/l.
- Zinc was observed <0.01 mg/l at all the locations.
- Aluminum concentration is observed <0.01 mg/l at all the locations which are within the limits stipulated.
- Mercury concentrations at all the locations observed is <0.001 mg/l





PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

Based on the above results, it is evident that all of the parameters in ground water fairly meet the standard limits of IS: 10500.

**Surface Water:** The Results of Surface water is pH-7.16 – 8.05; DO-4.7 to 5.5 mg/l and BOD- 8.2 to 22.71 mg/l & COD 39.28 to 120 mg/l.

The results obtained is compared with the standard IS:2296 Limits and found to be Class-C.

## NOISE MONITORING

### 4.7.1 OBSERVATIONS

#### a) Day Time Noise Levels ( $Leq_{day}$ )

The daytime ( $Leq_{day}$ ) noise levels are observed in Pirthala to be in the range of 61.1 dB(A) which are within the prescribed limit of 75 dB(A) and in residential areas to be in the range of 45.9 – 61.1 dB(A) which are within the prescribed limit of 55 dB(A).

#### b) Night time Noise Levels ( $Leq_{night}$ )

The nighttime ( $Leq_{night}$ ) noise levels are observed in Plant Site to be in the range of 39.1 dB(A) which are within the prescribed limit of 70 dB(A) and in residential areas to be in the range of 39.1 – 48.4 dB(A) which are within the prescribed limit of 45 dB(A).

### 4.8 SOIL MONITORING

Soil samples were collected at eight representative sampling locations, and the major observations are found in range of at all location:

- It is observed that the pH of the soil in the study area ranged from 7.71 to 8.23. The maximum pH value of 8.23 is observed at S-3 and whereas the minimum value of 7.71 was observed at S-4.
- The electrical conductivity was observed to be in the range of 193 $\mu$ S/cm to 289 $\mu$ S/cm with the maximum observed at S-2 and the minimum observed at S-8.
- The phosphorus values range between 8.7 to 16.2 kg/ha. Indicating that the phosphorus content in the study area falls in medium category.
- The potassium values range between 30.0 to 45.0 mg/100gm.

The result obtained is compared with the standard soil classification given Agriculture Soil Limits. It has been observed that the soils are Sandy loam in texture and slightly alkaline in nature. The nutrient and organic matter contents are medium to average sufficient and the soil is normally fertile.

### 4.9 BIOLOGICAL ENVIRONMENT

#### 4.9.1 FLORA

The main species of flora found in core and buffer zone are as follows:-



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

viii

13

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

Flora	
Core Zone	Buffer Zone
Tree -12 Species	Grasses -6 Species
	Shrubs & herbs -54 species
	Climber- 2 Species
	Tree -35 Species

#### 4.9.2 FAUNA

The main species of fauna found in core and buffer zone are as follows:-

Fauna	
Core Zone	Buffer Zone
Amphibian - 0 Species	Amphibian - 4 Species
Reptiles - 02 Species	Reptiles - 04 Species
Avifauna - 07 Species	Avifauna - 31 Species
Mammals - 02 Species	Mammals - 08 Species
Butterflies-0species	Butterflies-0 species

#### 5.0 IDENTIFICATION OF HAZARDS AND MITIGATION MEASURES

##### Hazard identified:

The main hazard potentials in the proposed dye and dye manufacturing Plant Facility are categorized as below: -

- **Process Hazards** - Due to loss of containment during handling of hazardous materials or processes resulting in fire, explosion, bursting of cyclones due to high pressure in the boiler, etc.
- **Mechanical Hazards** - Due to "mechanical" operations such as welding, maintenance, falling objects etc. - basically those NOT connected to hazardous materials.
- **Electrical Hazards** - Electrocutation, high voltage levels, short circuit, etc.

##### Mitigation Measure

- Regular inspection & replacement of chemical hoses.
- Maintenance system for gaskets, flange & hose connections including leak check.
- Procedure to immobilize tanker before start of unloading.
- Paved area for tanker unloading with berm for spill containment.
- Chemical spill management system with absorbents.
- Unloading checklist and display board in local language.
- Use of PPE for unloading.



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

ix

18

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

**6.0 AFFORESTATION PROGRAMME**

S.No.	Scientific Name	Common Name	S. No.in CPCB Manual	HA	HT (m)	E/D	Year wise Plantation programme			No of Trees to be planted	Budget for proposed plantation		
							I Yr.	II Yr.	III Yr.		Plant cost including transportation, pitting, watering and fertilizers@ Rs. 300/sapling	Maintenance cost including causality replacement and watering @ Rs 200/ plants	Total
1	<i>Azadirachta indica</i>	Neem	A-44	Tree	20	Evergreen	235	215	212	662	198600	132400	331000
2	<i>Polyalthia longifolia</i>	Ashok	P-9	Tree	15	Evergreen	210	200	212	622	186600	124400	311000
3	<i>Albizia lebeck</i>	Siris	A-29	Tree	20	Deciduous	215	210	212	637	191100	127400	318500
4	<i>Cassia fistula</i>	Amaltash	C-7	Tree	12	Deciduous	215	210	212	637	191100	127400	318500
5	<i>Dalbergia sissoo</i>	Shisham	D-2	Tree	10	Evergreen	225	215	212	652	195600	130400	326000
6	<i>Ficus religiosa</i>	Pipal	F-7	Tree	20	Evergreen	200	215	212	627	188100	125400	313500
7	<i>Ficus bengalensis</i>	Bad	F-3	Tree	12	Evergreen	200	200	212	612	183600	122400	306000
8	<i>Terminalia arjuna</i>	Arjun	T-6	Tree	15	Deciduous	215	210	212	637	191100	127400	318500
9	<i>Syzygium cumini</i>	Jamun	S-20	Tree	20	Evergreen	230	215	212	657	197100	131400	328500
10	<i>Psidium guajava</i>	Guava	P-20	Tree	05	Evergreen	230	215	212	657	197100	131400	328500
11	<i>Bauhinia variegata</i>	Kachnar	B-10	Tree	05	Deciduous	215	215	212	642	192600	128400	321000
12	<i>Aegle marmelos</i>	Beal tree	A-22	Tree	12	Evergreen	225	210	213	648	194400	129600	324000
13	<i>Annona squamosa</i>	Sitaphal	A37	Tree	10	Evergreen	225	225	212	662	198600	132400	331000
14	<i>Mangifera indica</i>	Aam	M-5	Tree	15	Evergreen	230	225	212	667	200100	133400	333500
<b>Total</b>							<b>3070</b>	<b>2980</b>	<b>2969</b>	<b>9019</b>	<b>2705700</b>	<b>1803800</b>	<b>4509500</b>



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

**7.0 ENVIRONMENTAL IMPACT PREDICTION AND MANAGEMENT PLAN**

Construction phase				
S. No.	Source	Environmental Component	Management Plan	Remarks
1.	Excavation, construction, debris	Land	<ul style="list-style-type: none"> <li>➤ Topsoil will be conserved and used for landscaping.</li> <li>➤ Reutilization and recycling of construction debris</li> </ul>	-
2.	Dust emission from excavation, air emission from machinery	Ambient Air Quality	<ul style="list-style-type: none"> <li>➤ Regular sprinkling of the water will be done along with the construction activities.</li> <li>➤ Periodic maintenance of construction equipment.</li> <li>➤ Use of good quality fuels.</li> <li>➤ Use of Personal Protective Equipments</li> </ul>	Impacts will be temporary during construction phase and confined to short distances, as coarse particles will settle within the short distance from activities.
3.	Surface runoff from project site. Oil/fuel and waste spills. Improper debris, domestic sewage water	Water	<ul style="list-style-type: none"> <li>➤ Silt fences to reduce run-off. Altering the slope</li> <li>➤ The domestic sewage generated during the construction activity will be routed to Modular STP.</li> </ul>	No perennial surface water resource adjacent to site.
4.	Noise generated from construction activities and operation of construction equipment and DG sets	Noise	<ul style="list-style-type: none"> <li>➤ Use of well maintained equipment.</li> <li>➤ Heavy construction activity limited to day- time hours only. Use of noise mufflers in and construction vehicle.</li> <li>➤ Use of earplugs/muffs by construction staff.</li> <li>➤ Regular preventing maintenance of machinery and transportation of vehicles during construction to reduce noise pollution.</li> <li>➤ Provision of silencer, to modulate the noise generated by the machine, if required.</li> <li>➤ Reduce the exposure time of workers to the higher noise level by job rotation.</li> </ul>	Temporary impacts during Construction phase.



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL/2024

xi

26

PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

5.	Construction activities and Excavation	Aesthetic & biological	➤ The impacts will be compensated by tree plantation and gardening in the premises and along the both side of roads	
6.	Construction Phase	Occupational Health and safety	➤ Construction of temporary sheds for construction workers mobilized by the contractors. ➤ Work spots will be maintained clean, provided with optimum lighting and enough ventilation to eliminate dust/fumes.	The safety department will supervise the safe working of the contractor and their employees.
7.	Construction Phase	Socio- Economic	➤ Management will give preference to local people through both direct and indirect employment	Positive impact

Operation phase

Particulars	Mitigation Measures										
<b>A. Air Emissions:</b> 1. Boiler (10 Ton/hr) 2. Pickling plant 3. DG Set (1000 kVA- 2 Nos)	<b>Point Sources:</b> 1. Boiler - 2. Pickling plant: - 3. DG Set; - <b>Management:</b> <ul style="list-style-type: none"> <li>Boiler (LNG Fired) having capacity of 10 TPH is attached to 30 m. stack height.</li> <li>Flue gases during pickling are routed into a Twin type fume scrubber through 30.0 m stack height.</li> <li>The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> </ul>										
<b>B. DG Sets- 1000 kVA 2 No.</b>	<ul style="list-style-type: none"> <li>DG Set having capacity of 2Nos.1000 KVA is attached to 30m stack height (Fuel- Natural Gas ).</li> </ul>										
<b>C. Vehicular Emission</b>	Emissions of vehicle exhausts include SOx, NOx, CO from combustion of fossil fuels will be envisaged for transportation of raw material and finished goods. 3000 Nos. (1500 for Raw Materials + 1500 for Finished Goods) of Vehicles is being/will be used for the project. Transportation details for proposed project is given below: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Transportation Details</th> <th>Total (No's)/month</th> </tr> </thead> <tbody> <tr> <td>Truck/ Trailer (20 MT &amp; 40MT) for Raw materials</td> <td>1500 (Diesel)</td> </tr> <tr> <td>Trucks/ Trailer (20 MT &amp; 40MT) for finished goods</td> <td>1500 (Diesel &amp; CNG)</td> </tr> </tbody> </table> <b>Management:</b> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Source</th> <th>Management</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Transportation Details	Total (No's)/month	Truck/ Trailer (20 MT & 40MT) for Raw materials	1500 (Diesel)	Trucks/ Trailer (20 MT & 40MT) for finished goods	1500 (Diesel & CNG)	Source	Management		
Transportation Details	Total (No's)/month										
Truck/ Trailer (20 MT & 40MT) for Raw materials	1500 (Diesel)										
Trucks/ Trailer (20 MT & 40MT) for finished goods	1500 (Diesel & CNG)										
Source	Management										



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

## EXECUTIVE SUMMARY

	Transportation	<ul style="list-style-type: none"> <li>➤ PUC certified vehicles is being /will be used;</li> <li>➤ Vehicles used for transporting raw materials are driven by High Speed Diesel and vehicles used for transporting finished goods are driven by CNG &gt;50% of vehicles.</li> <li>➤ Speed limit of 10Km/hr. is/will be maintained in the plant premises.</li> <li>➤ The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> <li>➤ Good House Keeping is/ will be maintained.</li> </ul>																													
<b>Fugitive Emissions from materials handling including storage or transport (other raw materials)</b>	<p><b>Material Handling:</b></p> <ul style="list-style-type: none"> <li>➤ The fugitive emission during handling of Scrap, loading and unloading point, transfer points and storage area.</li> <li>➤ Transportation</li> <li>➤ Dust generation is envisaged as all the internal roads inside the plant premises.</li> </ul> <p><b>Management:</b></p> <ul style="list-style-type: none"> <li>➤ Proper House Keeping is being/will be done. Sweeping of roads is being/ will be done.</li> <li>➤ All paved roads are already developed with both side of plantation.</li> <li>➤ Periodically, water sprinkling on paved road is being/ will moisten the surface to prevent the fugitive dust.</li> <li>➤ Speed limit is also restricted up to 10 km/hr.</li> </ul>																														
<b>Odors from sewage</b>	<p>Sewage / Waste: - The domestic sewage is treated within the proposed STP by using Sequential batch reactor technology (Capacity-100 KLD) at plant site and treated water will be used for plantation and flushing purpose to reduce the fresh water consumption.</p> <p>Mitigation measure Good housekeeping is being practice and same practice will be adopted.</p>																														
<b>Hazardous waste generation</b>	<table border="1"> <thead> <tr> <th colspan="6">Hazardous Waste Quantity in TPA</th> <th rowspan="2">Treatment/ disposal</th> </tr> <tr> <th>Type of Waste</th> <th>Schedule</th> <th>Code</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Chemical Sludge from waste water treatment (TPA)</td> <td>1</td> <td>35.3</td> <td>16000</td> <td>16000</td> <td>Send to registered recyclers</td> </tr> <tr> <td>Used Oil or Spent Oil</td> <td>1</td> <td>5.1</td> <td>200</td> <td>200</td> <td>Send to registered recyclers</td> </tr> <tr> <td>Iron oxide</td> <td>1</td> <td>5.2</td> <td>4000</td> <td>4000</td> <td>Send to registered recyclers</td> </tr> </tbody> </table>	Hazardous Waste Quantity in TPA						Treatment/ disposal	Type of Waste	Schedule	Code	Proposed	Total	Chemical Sludge from waste water treatment (TPA)	1	35.3	16000	16000	Send to registered recyclers	Used Oil or Spent Oil	1	5.1	200	200	Send to registered recyclers	Iron oxide	1	5.2	4000	4000	Send to registered recyclers
Hazardous Waste Quantity in TPA						Treatment/ disposal																									
Type of Waste	Schedule	Code	Proposed	Total																											
Chemical Sludge from waste water treatment (TPA)	1	35.3	16000	16000	Send to registered recyclers																										
Used Oil or Spent Oil	1	5.1	200	200	Send to registered recyclers																										
Iron oxide	1	5.2	4000	4000	Send to registered recyclers																										
<b>Solid waste Generation</b>	<p>The solid waste generation and their disposal are as follows:</p> <table border="1"> <thead> <tr> <th rowspan="2">Particulars</th> <th colspan="3">Waste Quantity in TPD</th> <th rowspan="2">Treatment/ disposal</th> </tr> <tr> <th>Type of Waste</th> <th>proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Sludge TPA</td> <td>STP Sludge</td> <td>0.5</td> <td>0.5</td> <td>Used as manure for plantation</td> </tr> <tr> <td>Municipal Solid Waste (@0.125 Kg/ day</td> <td>Biodegradable</td> <td>0.25</td> <td>0.25</td> <td>Sent to Nearest Municipal site</td> </tr> </tbody> </table>	Particulars	Waste Quantity in TPD			Treatment/ disposal	Type of Waste	proposed	Total	Sludge TPA	STP Sludge	0.5	0.5	Used as manure for plantation	Municipal Solid Waste (@0.125 Kg/ day	Biodegradable	0.25	0.25	Sent to Nearest Municipal site												
Particulars	Waste Quantity in TPD			Treatment/ disposal																											
	Type of Waste	proposed	Total																												
Sludge TPA	STP Sludge	0.5	0.5	Used as manure for plantation																											
Municipal Solid Waste (@0.125 Kg/ day	Biodegradable	0.25	0.25	Sent to Nearest Municipal site																											



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

## EXECUTIVE SUMMARY

	Scrap from Process	Scrap	181.81	181.81	Sold to Local market
Water Environment During Operation Phase	Waste water Generation is as given under:				
	<b>S. No.</b>	<b>Liquid Effluents</b>	<b>Quantity</b>	<b>Unit</b>	<b>Mode of Treatment/ Disposal</b>
	1	Domestic Sewage	75	KLD	Domestic waste water 75KLD treated in STP (Capacity-100KLD) and 37.5 KLD of Treated water will be reused in plantation. And 30 KLD will be recycled for flushing purposes.
	2	Trade Effluent	318.75	KLD	<p>Stage-1: The effluent generation from industrial process is 127.5 KLD will be treated in ETP-1 (160KL capacity) of low COD and low TDS</p> <p>Stage-2: spent and coolant waste water of 48.75KL will be treated in ETP-2 (65KL Capacity) of high COD and high TDS</p> <p>Treated water from ETP 1 and ETP 2 will be sent to WRP-RO followed by MEE (ZLD plant)</p> <p>The overall treated water of 270KLD is reused after treatment in COC to Cooling Tower.</p> <p>No waste water will be disposed of on ground outside the plant premises.</p>
Noise Pollution During	<b>Sources of Noise:</b> <ul style="list-style-type: none"> <li>Fans, motors/engines, Loading/Unloading Scrap, Noise due to Heavy Equipment</li> </ul>				



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

xiv

29

Operation Phase	<p>Operations.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>• All equipment's will be procured meeting the permissible noise standards.</li> <li>• The insulation provided for prevention and loss of heat and PPE will also act as noise reducer.</li> <li>• Foundations and structures will be designed to minimize vibrations and noise.</li> <li>• Regular equipment maintenance and better work habits is will be adopted.</li> <li>• D.G. set is housed in an inbuilt acoustic enclosure with stack height as per CPCB norms.</li> <li>• Necessary safety and personal protective equipment such as ear plugs, ear muffs, helmet etc will be provided to the workers.</li> <li>• Implementation of Plantation within the premises of plant will absorb the noise. Thus will help to control the noise pollution.</li> <li>• Proper lubrication and housekeeping will be usually done to avoid excessive noise generation.</li> <li>• Supervisor will be responsible to control the noise by maintaining conditions of machineries and silencers.</li> <li>• Use of ear protective devices.</li> <li>• The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> </ul>
Rain water Harvesting Plan	<ul style="list-style-type: none"> <li>• The Rain water Collected from Roof Top and paved areas will be collected through Channels and Sent to Rain water Harvesting Pits.</li> <li>• Six rain water harvesting structure are proposed with the capacity of 32.4 m3/hr.</li> </ul>
Occupational Health and Safety	<p><b>Health Hazards:</b></p> <ul style="list-style-type: none"> <li>➤ Major physical hazards in cold rolling mill plant are caused by fumes and dusts, smoke, molten metal and noise.</li> <li>➤ High priority health hazards are particulates, were identified as causes of the most significant risks in the work environment.</li> <li>➤ Fire and explosions.</li> </ul> <p><b>Hazards:</b></p> <ul style="list-style-type: none"> <li>➤ <b>Process hazards</b> due to loss of containment during handling of materials or processes resulting in fire, explosion, etc.</li> <li>➤ <b>Mechanical hazards</b> due to "mechanical" operations such as welding, maintenance, falling objects etc. - basically those NOT connected to hazardous materials.</li> <li>➤ <b>Electrical hazards:</b> electrocution, high voltage levels, short circuit, etc. Out of these, the material and process hazards are the one with a much wider damage potential as compared to the mechanical and electrical hazards, which are by and large limited to very</li> </ul>





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

	<p>small local pockets.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>➤ Enclose and isolate potential sources of air emissions to the work zone to the extent practical;</li> <li>➤ Monitor worker exposure using personal occupational hygiene sampling devices;</li> <li>➤ Providing training and encourage good personal hygiene, and prohibiting smoking and eating at the worksite;</li> <li>➤ Automate processes and material handling to the extent practical and provide enclosures for operators;</li> </ul> <p><b>WORK AREA SAFETY &amp; HEALTH PRECAUTIONS:</b></p> <ul style="list-style-type: none"> <li>➤ Provision of fire-resistant gloves</li> <li>➤ Face &amp; Eye protection to prevent splashing</li> <li>➤ Approved respirators to prevent inhaling of fumes</li> <li>➤ Provision of adequate ventilation &amp; exhausts</li> <li>➤ Adequate storing facility with defined inventory</li> <li>➤ Adequate Wet scrubbing system with suitable scrubbing solution</li> <li>➤ Periodic Inspection of Equipment/Machinery.</li> </ul>
<p>Socio-Economic Aspect</p>	<ul style="list-style-type: none"> <li>• There is a possibility of creation of direct and indirect employment opportunities due to working of this plant.</li> <li>• Direct employment of 2000 Nos to the local people which help to sustain their livelihood.</li> <li>• During the operational phase by the implementation of certain CER activities indirect employment will also generate.</li> <li>• Apart from this, movement of trucks for carrying raw materials in, and products around 40 Persons will get employment as Driver and Cleaner, out will bring outside workers of supply chain into the area regularly, and will provide additional business to local vendors in the form providing food, and their other day to day requirements, thus generating additional income to             <ul style="list-style-type: none"> <li>• the local businesses.</li> <li>• Improved livelihood.</li> <li>• Training will be provided to the local persons.</li> <li>• Awareness programme will be organized.</li> </ul> </li> </ul>
<p>Health and Safety</p>	<p><b>Health and Safety :</b></p> <p>Following measures will be adopted in the plant: -</p> <ul style="list-style-type: none"> <li>• Regular inspection and maintenance of Pollution Control Equipment.</li> <li>• All workers related to safety such as safety appliances, training, safety awards, posters, slogans will be undertaken.</li> <li>• The workers exposed to noisy sources will be provided PPE's.</li> <li>• Adequate facilities for drinking water and toilets will be provided to the employees.</li> </ul>



	<ul style="list-style-type: none"> <li>The fire and safety equipment will be properly utilized and maintained regularly.</li> <li>Company will undertake awareness program and community activities like health, camps, family welfare camps etc.</li> <li>Regular medical check-up of workers.</li> </ul>
E-Waste Management	<ul style="list-style-type: none"> <li>There is no generation of E-waste within the plant premises.</li> </ul>
Plastic Waste Management	<ul style="list-style-type: none"> <li>There is no generation of plastic waste within the plant premises.</li> </ul>
Biological Environment	<ul style="list-style-type: none"> <li>To mitigate adverse impact on the biodiversity and to improve habitat status of the study area:-</li> <li>The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> <li>At present total 12 no. of trees/shrubs of different species are present in area.</li> </ul>
Proposed Green Area Development	<ul style="list-style-type: none"> <li>In proposed project area plantation will be developed as per the Guidelines of MoEF &amp; CC of around 2500 trees/Ha of land shall planted. Total 9019 nos. of trees will be planted.</li> <li>Plantation will be done all along the road and Plant boundary and other suitable location within plant premises.</li> <li>Plantation will be start along the construction work.</li> </ul>
Techniques for Green Area Development	<p>Combination of plant is selected depending upon the topographical suitability and species selected as per CPCB Guideline. The soil characteristics will be kept in mind. Based on this and environmental conditions suitable native plants species have been proposed for year wise plantation programme.</p>
Design of Green Area	<p>Selection of plants will also take into consideration of the following factors:</p> <p><b>a.</b> For absorption of gaseous emissions:</p> <ul style="list-style-type: none"> <li>Tolerance towards pollutants in question, at concentrations, that are not too high to be instantaneously lethal, Longer duration of foliage,</li> <li>Freely exposed foliage, through Adequate height of crown,</li> <li>Openness of foliage in canopy,</li> <li>Big leaves (long and broad laminar surface)</li> <li>Large number of stomata apertures</li> <li>Stomata well- exposed (in level will the general epidermal surface)</li> </ul> <p><b>b.</b> For the removal of suspended particulate matter:</p> <ul style="list-style-type: none"> <li>Height and spread of crown</li> <li>Leaves supported on firm petioles,</li> <li>Abundance of surface on bark and foliage, through</li> <li>Roughness of bark,</li> <li>Epidermal outgrowth on petioles,</li> <li>Abundance of axillary's hairs,</li> </ul>



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

➤ Hairs or scales on laminar surfaces Stomata protected (by was, arches/ rings, hairs, etc.)

All plants selected are locally adapted, and the present site is capable of supporting their growth with suitable horticultural practices. Approx. 10 feet size (height) grown plants will be planted at a density of 2500 per Ha in suitable spacing. Around 9019 plants are proposed to be raised within first 3 years. Under proposed plantation development programme 45.09 Lacs\_ budget is proposed. All plants are locally adapted and the present site is capable of supporting their growth with suitable horticultural practices. Sufficient resources and man power for development and maintenance is essential for a good plantation management. A suggested list of plant species suitable for plantation and list of Trees proposed for plantation is given below:

## 8.0 ENVIRONMENTAL ACTION PROGRAMME

For environment protection, management, pollution control, treatment and monitoring systems, appropriate budgetary provision would be made and provision for recurring expenditure for environment management of the project would be made. The details of budget allocation during functional phase are given in Table no:8. The breakup of the proposed cost for Environment Management Programme is given as under: -

**Table 8: Cost Provision for Environmental Measures**

S. No.	Description of Item	Proposed capital cost (Lacs)	Proposed Recurring cost (Lacs)	Total proposed Capital Cost (Lacs)	Total proposed Recurring Cost (Lacs)	Remarks
1	Air Emission mitigation measure adopted for point source, area source and line source	1500	500	1500	500	Twin type fume scrubber, Water sprinkling
2	Water discharge mitigation measures to maintain ZLD with effectiveness	200	20	200	20	MEE with MBR technology will be proposed
3	Rain water Harvesting	200	20	200	20	--
4	Plantation Development	100	10	100	10	--
5	Fire fighting	1500	150	1500	150	Firefighting equipments as per NBC code are installed and FIRE NOC will be obtained.
6	Corporate Environmental Responsibility <i>*Any activity desired in the Final EIA /EMP report will be added.</i>	500	50	500	50	Reduction of carbon and emission trading will be projected
<b>Total</b>		<b>4000</b>	<b>770</b>	<b>4000</b>	<b>770</b>	--

## 9.0 CONCLUSION

ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

xviii

23



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

## EXECUTIVE SUMMARY

From the above discussion it can be said that the project is not likely to cause any significant impact on the ecology of the area, as adequate preventive measures will be adopted to contain the various pollutants with in permissible limits. Green area development around the area would also be taken up as an effective pollution mitigative technique, as well as to control the pollutants released from the premises of Jyoti Strips Pvt. Ltd..

\*\*\*\*\*

DRAFT DOR PH



"fofHkUu mRiknksa dh dqy {kerk & 7]80]000 ,eVhieh,  
mRiknu djus gsrq xSYoukbftax vkSj dyj dksfVax ykbu ds  
lkFk dksYM jksfyax fey d,ElysDI dh çLrkfor xzhu QhYM  
ifj;kstuk"

dk

**dk;Zdkjh lkjka'k**

fLrFk # fdyk uacj 4 Is 24] i`Fkyk rkrkjiqj jksM] xkao & rkrkjiqj]  
fkyk & iyoy] gfj;k.kk] 121102

ifj;kstuk {ks=%& 127294-69 oxZ eh-] ifj;kstuk ykxr% : 800 djksM+

tu&lquokbZ gsrq çLrko

(ÃvkÃ, vfèklwpuk fnukad 14-09-2006 vkSj mlds ckn ds  
la'kks/kkuqlkj xfrfof/k 3¼a½ ds varxZr "B1" Js.kh esa lwphc)½  
vkosnd

**T;ksfr fLV<sup>a</sup>ll çkbosV fyfeVsM**

çkfèk—r gLrk{kjdrkZ & lat; c=k ¼eq[; dk;Zdkjh çeq[k½  
iath—r irk & fdyk uacj 4 Is 24] i`Fkyk & rkrkjiqj jksM] xkao rkrkjiqj] iyoy]  
gfj;k.kk

Qksu uacj& 9811840212 bZesy& sanjaybatra@jyotistrips.com



## i;kZoj.k lykgdkj

### ,Uds ,Uok;jks lfoZlst kbosV fyfeVsM] t;iqj

¼9001%2008 ekf.kr dEiuh jktLFkku jkT; nq" k.k fu;a=.k eaMy ds lkFk

,EiSuYM i;kZoj.k lykgdkj o ,u, chbZVh ekU;rk klr] 16 vSy 2024 ds

vuqlkj Øe la 60 ij lwphc)½

d,iksZjsV dk;kZy;% & 92] ghjk uxj & ,] 'kkyhekj ckx ds ikI] vtesj jksM]

t;iqj & 302021 ¼jktLFkku½

Qksu uacj - 0141-4920770, 4920771;

bZesy - [info@enkayenviro.com](mailto:info@enkayenviro.com); Website: - [www.enkayenviro.com](http://www.enkayenviro.com)

## 1-0 dk;Zdkjh lkjka'k

### 1.1 ifjp;

T;ksfr fLV<sup>a</sup>ll kbosV fyfeVsM ,d Lrkfor dksYM jksfyax fey d,ElysDI gS ftleSa xSYoukbftax vkSj dyj dksfVax ykbu ls fofHkUu mRiknksa dh dqy {kerk 7]80]000 ,eVhih, dk mRiknu fd;k tkuk Lrkfor gSA ;g ifj;kstuk # fdyk uacj 04 ls 24] fV ,p,y, & rkrkjiqj jksM] xkao rkrkjiqj] iyoy] gfj;k.kk esa fLFkr gS ftdk dqy {ks=Qy 127294-69 oxZ ehVj gSA

Lrkfor ifj;kstuk dks bZvkbZ, vf/klwpuk fnukad 14 flracj] 2006 vkSj mlds ckA tkjh fd, x, la'kks/kuksa ds vkbVe 3 ¼,½ & /kkrqdeZ m|ksx ¼ykSg vkSj vykSg½ ds rgr oxhZ—r fd;k x;k gSA ifj;kstuk dks ch&1 Js.kh esa oxhZ—r fd;k x;k gSA lkoZtfud tu lquokbZ bZvkbZ, vf/klwpuk 14 flracj] 2006 vkSj mlds ckn ds la'kks/kuksa ds vuqlkj vk;ksftr dh tk,xhA

### 1.2 i;kZoj.k lek;kstu

Ø-la-	C;kSjk	fooj.k



,uds ,uok;jks lfoZlst kbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

II

26

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

.					
1.	ifj;kstuk dk uke	fofHkUu mRiknksa dh dqy {kerk 7]80]000 ,eVhnh, ds mRiknu djus gsrq xSYoukbftax vkSj dyj dksfVax ykbu ds lkFk çLrkfor dksYM jksfyax fey d,ElysDI ifj;kstukA			
2.	vkosnd	T;ksfr fLV <sup>all</sup> çkbosV fyfeVsM			
3.	LFkku	fdyk uacj 4 ls 24] i`Fkyk rkrkjiqj jksM] xkao & rkrkjiqj] ftyk & iyoy] gfj;k.kk] 121102			
4.	Hkw[kaM {ks=Qy	127294-69 oxZ eh-]			
5.	Hkwfe çdkj	vkS ksfxd Hkwfe			
6.	Vksiks'khV la[;k	53H/3,4,7&8			
7.	/kjry dk Lrj	lery ÒwÒkxA mPpre - 198 MSL] fuEure - 192 MSL.			
8.	fudVre cLrh	rkrkjiqj] 0-43 fdeh] nf{k.k iwoZ			
9.	fudVre çeq[k 'kgj	iyoy& 8-17 fdeh nf{k.k			
10.	fudVre i;ZVu LFky	v/;;u {ks= esa dksbZ ughaA			
11.	fMQsUI bUIVkWys'ku	v/;;u {ks= esa dksbZ ughaA			
12.	iqjkrRo egRo dk LFkku	v/;;u {ks= esa dksbZ ughaA			
13.	ifjfLFkfr dh laosnu'khy {ks=	v/;;u {ks= esa dksbZ ughaA			
14.	vkjf{kr@lajf{kr ou {ks=	v/;;u {ks= esa dksbZ ughaA			
15.	fudVre unh@tyk'k;	Ø-la-	fooj.k	nwjh ¼fdeh½ ¼ifj;kstuk lhek ls½)	fn'kk ¼fdeh
			ty lfevr		
		1.	igyknijqj forj.kh	1.15	mÙkj mÙkj iwoZ
		2.	c?kkSyk ekbuj	1.70	nf{k.k iwoZ
		3.	cYycx< fMLV <sup>ah</sup> C;wVjh	3.77	mÙkj mÙkj iwoZ



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

III

27

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

4.	vkxjk ugj	4.13	iwoZ
5.	lhdjh forfjdk	4.35	mÜkj
6.	xkSaNh ukyh	4.35	if'pe
7.	tukSyh forfjdk	4.68	nf{k.k nf{k.k iwoZ
8.	/krhj forfjdk	5.59	if'pe
9.	jkeiqj forfjdk	6.64	iwoZ
10.	pkaniqj ekbuj	6.94	if'pe
11.	iyoy forfjdk	7.82	nf{k.k nf{k.k iwoZ
12.	mVkoj forfjdk	8.76	nf{k.k if'pe
13.	fldjksuk forfjdk	9.25	mÜkj mÜkj if'pe

**¼lzksr: ,lvksvkbZ thVh 'khV ds lacaèk esa IHkh nwfj;ka yh xbZ gSa½A**

16.	fpfdRlk lqfo/kk vkSj fo ky;	<b>uke</b>	<b>nwjh (Km)</b>	<b>fn'kk</b>
		<b>¼ifj;kstuk lhek ls½</b>		
<b>fpfdRlk lqfo/kk</b>				
		ukscsy pkSfjVscy vLirky & thVh jksM] i`Fkyk	1.16	if'pe
		bZ,lvkbZ fMLisaljh i`Fkyk	1.67	if'pe mÜkj if'pe
		Jh gfj vLirky] rkrkjiqj	1.67	if'pe mÜkj if'pe
<b>f'k{k.k lqfo/kk,a</b>				
		jktdh; çkFkfed fo ky; rkrkjiqj	0.48	iwoZ nf{k.k iwoZ
		ljdkj- çkFkfed fo ky; tVksyk	0.58	mÜkj mÜkj iwoZ
		chMh,e ifCyd Ldwy] rkrkjiqj	0.66	iwoZ
		thih,l i`Fkyk	1.27	if'pe
		jktdh; dU;k mPp fo ky; i`Fkyk	1.40	if'pe
		NksVw jke ifCyd Ldwy i`Fkyk	1.60	if'pe mÜkj if'pe
		ljdkjh xyZ~l lhfu;j ldsamjh Ldwy] i`Fkyk	1.70	if'pe mÜkj if'pe

**¼lzksr% ,lvksvkbZ thVh 'khV ds lacaèk esa IHkh nwfj;ka yh xbZ gSa½**



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

IV

28



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

17.	HkwdEih; {ks=	2002 ds Òkjr; ekud C;wj" ¼chvkÃ,l½ ds Òkjr ds Òwdaih; {ks= ekufp= ds vuqlkj] bls mPp {kfr tksf[ke {ks=} t"u&IV ds :i esa oxÊÑr fd;k x;k gSA
-----	------------------	---

### 2-1 cqfu;knh vko';drk,i

ifj;kstuk ds fy, cqfu;knh vko';drk uhps nh xbZ gS&

rkydk 2 & cqfu;knh vko';drk,i

S. No.	Particulars	Details
1.	Á"tsDV Ádkj	xzhuQhYM
2.	{ks=Qy ¼oxZ eh-½	127294.69
3.	ÁtkZ dh ekax	<b>fof'k"V</b>
		<b>ÁLrkfor dqy ekax</b>
		ÁtkZ ekax 15 MVA
		lz"r% fctyh dh ekax ,ohoh,u,y ls iwjh dh tk jgh gS 1000 fdy"okV ds nks Mhth lsV vkikrdkyhu fLFkfr@fctyh foQyrk esa mi;"x fd;k tk,xsaA
4.	ikuh dh vko';drk	dqy ,d ckj ikuh dh ekax% 750 ds,yMh e@twnk-rktk ikuh dh ekax& % 450 ds,yMh; ¼m ksx% 382-5] ?kjsyw% 67-5 ds,yMh vkSj iqupZfØr ty &300 ds,yMh½
5.	j"txkj	fuekZ.k pj.k 350 la[;k ¼çR;{k&50] vçR;{k/lafonkRed&300½; v,ijs'ku pj.k ¼çR;{k&300] vçR;{k/lafonkRed&1700½ & dqy 2000A

### 3-1 ifj;kstuk fooj.k



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;ij

अप्रैल '2024

V

29

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

### 3-1-1 dPps eky dh vuqekfur ek=k] laHkkfor lzksr vkSj ifjogu ds rjhds ds lkFk vko';d dPpk ekyA

fuekZ.k ds fy, fuEufyf[kr dPps eky dh vko';drk gksxh%

rkfydk 3% vko';d dPps eky dh lwph

Ø-la-	dPps eky dk uke	ÁLrkfor dPpk eky $\frac{1}{4}$ Vh <sub>ih</sub> , $\frac{1}{2}$	dqy dPpk eky $\frac{1}{4}$ Vh <sub>ih</sub> , $\frac{1}{2}$	ifjogu lz'r dk rjhdk	Iz'r LFkku
1	g,V jksYM dkby	8,40,000	8,40,000	IM+d	VkVk LVhy fyfeVsM] lsy] ftany LVhy ,aM ikoj fyfeVsM] ftany LVhy fyfeVsM ls vk;kfrr

### jl;uksa dk fooj.k

Ø-la-	jl;u	{kerk
1.	pwuk	20 TPD
2.	dkfLVd lksMk	200 Lt/day

### 3-1-2 mRikn&

la;a= esa çLrkfor mRikn uhps fn;s x;s gSa%&

rkfydk 4& mRiknksa dh lwph

Øe la;k	mRikn dk uke	ÁLrkfor mRiknu {kerk $\frac{1}{4}$ Vh <sub>ih</sub> , $\frac{1}{2}$	dqy {kerk $\frac{1}{4}$ Vh <sub>ih</sub> , $\frac{1}{2}$
i.	HRPO coils/sheets	120000	120000
ii.	Cold rolled full hard coils	60000	60000
iii.	CRCA coils/sheets	90000	90000
iv.	Galvanized/galvalume coils	240000	240000
v.	Colour coated coils	120000	120000
vi.	CDW	30000	30000
vii.	HR tube	30000	30000



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;ij

अप्रैल '2024

VI

39

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	EXECUTIVE SUMMARY
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

viii.	CR tube	60000	60000
ix.	Stamping	30000	30000
<b>dqy {kerk</b>		<b>780,000</b>	

### 3.1.3 Hkwfe mi;ksx iSVuZ

dqy Hkwfe {ks=Qy 127294-69 oxZ gSA ,eA

rkfydk 5& Hkwfe mi;ksx dk fooj.k

Ø-la-	Hkwfe mi;ksx	dqy	%dqy
1.	Hkou@dk;kZy; /la;a= {ks=	55219.97	43.38
2.	iz'kLr {ks= ¼IM+d] xfy;kjk] ikfdZax½	35,997.62	28.27
3.	xzhu csYV {ks=	36,077.10	28.35
4.	[kqyh txg	0.0	0.0
<b>dqy</b>		<b>127294.69</b>	<b>100</b>

la;a= iflj ds vanj çLrkfor gfjr {ks= 36077-10 oxZ ehVj ¼28-35 çfr'kr½ gS ftlesa 2500 isM□/gsDVs;j dh nj ls 9019 ikS/ks yxok, tk;saxsA ekunaMksa ds vuqlkj dqy 33 çfr'kr o`{kkjksi.k çklr djus ds fy, ifj;kstuk LFky ds Hkhrj daVsuj o`{kkjksi.k esa yxHkx 4-65 çfr'kr dh deh okyk o`{kkjksi.k fd;k tk,xkA bl çdkj dqy 33 çfr'kr {ks= esa o`{kkjksi.k fodflr fd;k tk;sxkA

#### 4.1 vè;;u {ks=

vè;;u {ks= esa vè;;u {ks= ds ¼10-0 fdeh½ 66 xkao 'kkfey gSaA vè;;u {ks= dh dqy tula[;k 4]80]539 gS tks 83]592 ?kjsa esa jgrh gS vkSj vkSlr ?kj esa çfr ifjokj yxHkx 6 lnL; gSaA

#### 4.2 tulkaf[;dh

rkfydk 6& vè;;u {ks= dh tulkaf[;dh; :ijs[kk

Ø-la-	C;kSjs	fooj.k
1.	xkaoksa dh la[;k	66
2.	dqy tula[;k	480539
	1 iq#"k	255887
	2 efgyk,j	224652
3.	ifjokjsa dh la[;k	83592
4.	lk{kjksa dh la[;k	313956
	1 iq#"k	188169

,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

VII

35

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	EXECUTIVE SUMMARY
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	2	efgyk,j	125787
5.	eq[; Jfed		105992
	1	iq#"k	93631
	2	efgyk,j	12360
6.	lhekar Jfed		29782
	1	iq#"k	21100
	2	efgyk,j	8682
7.	xSj&Jfed		344765
	1	iq#"k	141156
	2	efgyk,j	203609

**4-3 ifj;kstuk LFky ls 10-0 fdeh f=T;k ds vè;;u {ks= dk Hkwfe mi;ksx iSVuZ**

Hkw mi;ksx Js.kh	Hkw mi;ksx mi&Js.kh	{ks= ¼gsDVs;j½	{ks= ¼ çfr'kr ½
fufeZr {ks=	bZaV Hkêk	246.99	0.74
	fufeZr	10982.97	33.11
	vkS ksfxd {ks=	2411.10	7.27
Ñf"k Öwfe	—f"k Hkwfe	9870.86	29.76
	ijrh Hkwfe	7653.41	23.08
o`{kkjksi.k	o`{kkjksi.k	1702.31	5.13
ty fudk;	ty fudk;	299.72	0.90
<b>dqy ;'x</b>		<b>33167.34</b>	<b>100</b>

**4-4 ifjos'kh ok;q fo'ys"k.k**

All values are in µg/m³

Ø-la-	LFkku	Ánw"kd	U;wure	vf/kdre	vkSlr	98oka Áfr'krd	lhhlhch ekud
1	ifj;kstuk LFky	PM <sub>10</sub> µg/m³	73.40	84.90	78.76	84.20	100
		PM <sub>2.5</sub> µg/m <sup>3</sup>	43.60	52.60	47.79	52.33	60
		SO <sub>2</sub> µg/m <sup>3</sup>	3.13	6.12	4.49	5.88	80
		NO <sub>2</sub> µg/m <sup>3</sup>	7.15	12.14	9.10	11.85	80



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;ij

अप्रैल '2024

VIII

38

		CO	µg/m <sup>3</sup>	0.21	0.51	0.34	0.50	2000
2	nsoyh	PM <sub>10</sub>	µg/m <sup>3</sup>	65.40	82.40	72.38	80.08	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	39.60	46.50	42.38	46.28	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.98	6.12	4.94	5.98	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	7.55	13.54	10.09	13.47	80
		CO	µg/m <sup>3</sup>	0.25	0.61	0.42	0.57	2000
3	vlkoVh	PM <sub>10</sub>	µg/m <sup>3</sup>	64.2	77.3	70.08	76.81	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	39.4	46.9	42.35	46.2	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.98	5.81	4.85	5.81	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	8.01	12.16	9.52	11.72	80
		CO	µg/m <sup>3</sup>	0.24	0.62	0.39	0.6	2000
4	l;kyk	PM <sub>10</sub>	µg/m <sup>3</sup>	64.2	76.8	70.13	75.77	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	38.5	46.1	41.93	45.94	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.36	6.86	5.16	6.74	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	7.24	14.58	11.54	14.47	80
		CO	µg/m <sup>3</sup>	0.25	0.65	0.51	0.65	2000
5	MwaMlk	PM <sub>10</sub>	µg/m <sup>3</sup>	67.3	78.5	72.21	77.37	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	39.5	47.3	42.56	47.08	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	4.52	15.4	7.27	14.21	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	6.88	18.1	11.17	16.97	80
		CO	µg/m <sup>3</sup>	0.25	0.59	0.39	0.55	2000
6	xniqjh	PM <sub>10</sub>	µg/m <sup>3</sup>	66.4	73.5	70.35	73.45	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	35.1	67.4	41.33	54.49	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.15	7.24	4.9	6.81	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	7.25	13.12	9.98	12.96	80
		CO	µg/m <sup>3</sup>	0.25	0.64	0.44	0.63	2000
7	fijFkyk	PM <sub>10</sub>	µg/m <sup>3</sup>	66.5	74.1	70.09	73.78	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	35.9	43.5	39.9	43.45	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	5.36	10.68	7.59	10.64	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	8.24	14.78	11.2	14.67	80
		CO	µg/m <sup>3</sup>	0.28	0.59	0.4	0.59	2000
8	c?kkSyk	PM <sub>10</sub>	µg/m <sup>3</sup>	64.1	76.8	71.93	76.8	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	36.5	47.2	41.86	46.93	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	5.34	13.4	7.7	12.37	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	8.2	16.45	11.86	15.98	80
		CO	µg/m <sup>3</sup>	0.22	0.62	0.45	0.61	2000



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

IX

33

e,fuVj fd, x, MsVk ds ifj.kke crkrs gSa fd {ks= dh ifjos'kh ok;q xq.koÙkk ¼AAQ½ lkekU; :i ls fuxjkuh fd, x, IHkh LFkkuksa ij jk"Vªh; ifjos'kh ok;q xq.koÙkk ekudksa ds ekunaMksa ds vuq:i gSA

#### 4-5 ty fo'ys"k.k

ifj;kstuk {ks= ds vklikl HkwtY ds vkB uewus ,d= fd, x, vkSj mudk fo'ys"k.k fd;k x;k; fofHkUu ekinaMksa ds vuqlkj fo'ys"k.k.kkRed ifj.kke uhps fn, x, gaSA ty vkSj vif'k"V ty dh tkap ds fy, ekud rjhds esa fufnZ"V çfØ;k,a vesfjdu ifCyd gsYFk ,lksfl,'ku ¼,i,h,p,½ }kjk çdkf'krA

**Irgh ty %** Irgh ty ds uewuksa dh tkat ds ckn Kkr gqvK dh ih-,p- 7-16&8-05] fMI, YoM v,DIhtu & 4-7 ls 5-5 feyh xzke çfr yhVj] BOD- 8.2 - 22.71 feyh xzke çfr yhVj, COD - 39.28 - 120 feyh xzke çfr yhVj gaSA çklr ifj.kkeksa dh rgyuk ekud is:2296 lhekVksa ls dh xbZ vkSj bls Irgh ikuh dks Dykl & lh ds varxZr ik;k x;kA

**HkwtY %** fo'ys"k.k ds urhts crkrs gSa fd HkwtY dk ih,p ik;k x;k 7-05&7-60 dh jsatA Mh,l 421 feyhxzke@yhVj & 598 feyhxzke@yhVj dh jsat esa ik;k x;kA vU; iSjkehVj tSlS IYQsV~l 15-72 feyhxzke@yhVj & 22-63 feyhxzke@yhVj ik, x,A vU; ekinaMksa ds fy, HkkSfrd&jklk;fud fo'ys"k.k Hkh ISO:10500 ds ekudksa ds vuqlkj vuqes; lhek ds Hkhrj Fkka

#### 4-6 'kksj dh fuxjkuh

##### 4-6-1 i;Zos{k.k

**fnu ds le; 'kksj dk Lrj**  $Leq_{day} \frac{1}{4}fnu \frac{1}{2}$

ifj;`tuk {ks= esa fnu ds le;  $\frac{1}{4}Leq_{day} \frac{1}{2}$  'k`j dk Lrj 61-1 Mhch¼,½ ns[kk x;k gS t` 75 Mhch¼,½ dh fu/kkZfjr lhek ds Òhrj gS vkSj vkoklh; {ks=ªa esa 45-9&61-1 Mhch¼,½ dh lhek esa gS] t` 55 Mhch¼,½ dh fu/kkZfjr lhek ds Òhrj gSaA



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;ij

अप्रैल '2024

X

38

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	EXECUTIVE SUMMARY
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

**jkr le; /ofu Lrj Leq<sub>night</sub> ¼jkr½**

la;a= {ks= esa jkr ds le; (Leq<sub>night</sub>) "k" dk Lrj 39-1 Mhch¼,½ ns[kk x;k gS t" 70 Mhch¼,½ dh fu/kkZfjr lhek ds Öhrj gS vkSj vkoklh; {ks="a esa 39-1 Mhch¼,½ dh lhek esa gS] t" 45 Mhch¼,½ dh fu/kkZfjr lhek ds Öhrj gSaA

**4.7 feêh dh fuxjkuh**

feêh ds uewus आठ चरफुफेक uewuk LFkkuksa ij ,d= fd, x, Fks] vkSj lHkh LFkkuksa ij çeq[k voyksdu ik, x, gSa: ih ,p& 7-71 & 8-23 QkLQksjl & 8-7 ls 16-2 fd-xzk-@gs iksVSf'k;e & 30 & 45 feyhxzke@100 xzke çklr ifj.kke dh rpyuk —f" k e`nk lhek, i fn, x, ekud e`nk oxÉdj.k ls dh tkrh gSA th,l, ;g ns[kk x;k gS fd feêh cukoV esa □□□□□ □□□□ vkSj ç—fr esa rVLFk gSA iks"kd rRo vkSj dkcZfud inkFkZ dh ek=k eè;e gS vkSj feêh lkekU; ;i ls mitkÅ gSA

**4.8 tSfod i;kZoj.k**

**4.8.1 ouLifr**

**dkSJ vkSj cQj tksu esa ikbZ tkus okyh ouLifr;ssksa dh eq[; çtkfr;kj bl çdkj gSa%&**

ouLifr	
dkSJ {ks=	cQj {ks=
isM+ %12 çtkfr;kj	Äkl -6çtkfr;kj
	>kM+f;kj tM+h-cwfv;k -54 çtkfr;kj
	ioZrkj"gh >kM+f;kj- 2 çtkfr;kj
	isM+ %35 çtkfr;kj

**4-8-2 tho**



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

XI

39

## eq[; vkSj cQj tksu esa ik, tkus okys thoksa dh eq[; çtkfr;kj fuEukuqlkj gSa &

tho	
dksj {ks=	cQj {ks=
mÒ;pj& 0 çtkfr;kj	mÒ;pj - 4 çtkfr;kj
ljhl`i & 2 çtkfr;kj	ljhl`i - 4 çtkfr;kj
,foQ+quk - 07 çtkfr;kj	,foQ+quk - 31 çtkfr;kj
Lru/kkfj - 02 çtkfr;kj	Lru/kkfj - 08 çtkfr;kj
frfry;kj 0 çtkfr;kj	frfry;kj -0 çtkfr;kj

### 5-0 [krjksa dh igpku vkSj mUgSa de djus ds mik;

#### [krjs dh igpku%

çLrkfor MkbZ vkSj MkbZ fuekZ.k la;a= lqfoèkk esa eq[; tksf[ke {kerk dks uhps oxÈ—r fd;k x;k gSA -

#### çfØ;k ds [krjs &

[krjukd lkefxz;ksa ;k çfØ;kvksa ds lapkyu ds nkSjku jksdFkke ds uqdlku ds dkj.k vkx] foLQksV] c;,y esa mPp ncko ds dkj.k pØokrksa dk QVuk vkfnA

#### ;kaf=d [krjs &

;kaf=d lapkyu tSls osfYMax] j[kj[kko] fxjus okyh oLrqvksa vkfn ds dkj.k & ewy :i ls tks [krjukd lkexzh ls tqM+s ugha gSaA

#### fctyh ds [krjs &

fctyh dk >Vdk] mPp oksYVst Lrj] 'k,VZ lfdZV] vkfnA

#### 'keu mik;

- jklk;fud gkslsl dk fu;fer fujh{k.k vkSj çfrLFkkiuA
- fjlo tkap lfgr xkLdsV] fudyk gqvk fdukjk vkSj uyh dusD'ku ds fy, j[kj[kko ç.kkyhA
- mrjkbZ 'kq: gksus ls igys VSadj dks fLFkj djus dh çfØ;kA
- QSy fu;a=.k ds fy, cje ds lkFk VSadj vuyksfMax ds fy, iDdk {ks=A
- vo'kks"kd ds lkFk jklk;fud QSy çcaèku ç.kkyhA

,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;ij

अप्रैल '2024

XII

36





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

- psdfyLV vkSj fMLIys cksMZ dks LFkkuh; Hkk"kk esa mrkjukA
- mrkjus ds fy, ihihbZ dk mi;ksxA

DRAFT DOR PH



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;ij

अप्रैल '2024

XIII

37

## 6.0 o`kkjksi.k dk;ZØe

S.No.	Scientific Name	Common Name	S. No.in CPCB Manual	HA	HT (m)	E/D	Year wise Plantation programme			No of Trees to be planted	Budget for proposed plantation		
							I Yr.	II Yr.	III Yr.		Plant cost including transportation, pitting, watering and fertilizers@ Rs. 300/sapling	Maintenance cost including causality replacement and watering @ Rs 200/ plants	Total
1	<i>Azadirachta indica</i>	Neem	A-44	Tree	20	Evergreen	235	215	212	662	198600	132400	331000
2	<i>Polyalthia longifolia</i>	Ashok	P-9	Tree	15	Evergreen	210	200	212	622	186600	124400	311000
3	<i>Albizia lebbbeck</i>	Siris	A-29	Tree	20	Deciduous	215	210	212	637	191100	127400	318500
4	<i>Cassia fistula</i>	Amaltash	C-7	Tree	12	Deciduous	215	210	212	637	191100	127400	318500
5	<i>Dalbergia sissoo</i>	Shisham	D-2	Tree	10	Evergreen	225	215	212	652	195600	130400	326000
6	<i>Ficus religiosa</i>	Pipal	F-7	Tree	20	Evergreen	200	215	212	627	188100	125400	313500
7	<i>Ficus bengalensis</i>	Bad	F-3	Tree	12	Evergreen	200	200	212	612	183600	122400	306000
8	<i>Terminalia arjuna</i>	Arjun	T-6	Tree	15	Deciduous	215	210	212	637	191100	127400	318500
9	<i>Syzygium cumini</i>	Jamun	S-20	Tree	20	Evergreen	230	215	212	657	197100	131400	328500
10	<i>Psidium guajava</i>	Guava	P-20	Tree	05	Evergreen	230	215	212	657	197100	131400	328500
11	<i>Bauhinia variegata</i>	Kachnar	B-10	Tree	05	Deciduous	215	215	212	642	192600	128400	321000
12	<i>Aegle marmelos</i>	Beal tree	A-22	Tree	12	Evergreen	225	210	213	648	194400	129600	324000
13	<i>Annona squamosa</i>	Sitaphal	A37	Tree	10	Evergreen	225	225	212	662	198600	132400	331000
14	<i>Mangifera indica</i>	Aam	M-5	Tree	15	Evergreen	230	225	212	667	200100	133400	333500
<b>Total</b>							<b>3070</b>	<b>2980</b>	<b>2969</b>	<b>9019</b>	<b>2705700</b>	<b>1803800</b>	<b>4509500</b>

## 7-0 i;kZoj.kh; çHkko iwokZuqeku vkSj çcaèku ;kstuk

fuekZ.k pj.k				
Ø-la-	fof'k"V	i;kZoj.k ?kVd	çcaèku ;kstuk	fVli.kh
1-	mR[kuu] fuekZ.k] eyck	Hkwfe	<ul style="list-style-type: none"> <li>➤ Àijh feêh dks lajf{kr fd;k tk,xk vkSj dk;kZRed pj.k esa HkwfuekZ.k ds fy, mi;ksx fd;k tk,xkA</li> <li>➤ fuekZ.k eycs dk iqu: mi;ksx vkSj iqupZØ.k</li> </ul>	-
2-	mR[kuu Is èkwy mRItZu] . e'khujh Is ok;q mRItZu	ifjos'kh ok;q xq.koÙkk	<ul style="list-style-type: none"> <li>➤ fuekZ.k xfrfofèk;ksa ds lkFk&amp;lkFk ikuh dk fu;fer fNM+dko fd;k tk,xkA</li> <li>➤ fuekZ.k midj.kksa dk vkofèkd j[kj[kkoA</li> <li>➤ vPNh xq.koÙkk okys bZaèku dk mi;ksxA</li> <li>➤ O;fäxr lqj{kk midj.kksa dk mi;ksx</li> </ul>	fuekZ.k pj.k ds nkSjku çHkko vLFkk;h gksaxs vkSj de nwjh rd gh lhfer jgsaxs] D;ksafd eksVs d.k xfrfofèk;ksa Is de nwjh ij gh cl tk,axsA
3-	ifj;kstuk LFky Is lrg viokgA rsy@bZaèku vkSj vif'k"V QSyukA vuqfpr eyck] ?kjsyw lhost ty	ty	<ul style="list-style-type: none"> <li>➤ viokg dks de djus ds fy, xkn ckM+A &lt;yku cnyuk</li> <li>➤ fuekZ.k xfrfofèk ds nkSjku mRiUu ?kjsyw lhost dks e,Mîwyj ,lVhik esa Hkstk tk,xkA</li> </ul>	LFky ds fudV dksbZ ckjgeklh lrg ty lalkèku ughaA

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

4-	fuekZ.k xfrfofèk;ksa vkSj fuekZ.k midj.k vkSj Mhth lsV ds lapkyu ls mRiUu 'kksj	'kksj	<ul style="list-style-type: none"> <li>➤ lqO;ofLFkr midj.kksa dk mi;ksxA</li> <li>➤ Hkkjh fuekZ.k xfrfofèk dsoy fnu ds le; rd lhfer gSA fuekZ.k okguksa esa 'kksj eQyj dk mi;ksxA</li> <li>➤ fuekZ.k deZpkfj;ksa }kjk b;jlyx@eQ dk mi;ksxA</li> <li>➤ èofu çnw"k.k dks de djus ds fy, fuekZ.k ds nkSjku e'khujh ds j[kj[kko vkSj okguksa ds ifjogu dks fu;fer :i ls jksdukA</li> <li>➤ ;fn vko';d gks rks e'khu }kjk mRiUu 'kksj dks fu;af=r djus ds fy, lkbysalj dk çkoèkkuA</li> <li>➤ t,c jksVs'ku }kjk Jfedksa ds mPp 'kksj Lrj ds laidZ ds le; dks de djsaA</li> </ul>	fuekZ.k pj.k ds nkSjku vLFkk;h çHkkoA
5-	fuekZ.k xfrfofèk;kj vkSj mR[kuu	lkSan;kZRed ,oa tSfod	<ul style="list-style-type: none"> <li>➤ çHkkoksa dh HkjikbZ iflj esa vkSj NM+ksa ds nksuksa vksj o`{kkjksi.k vkSj cxxokuh ls dh tk,xh</li> </ul>	



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;ij

अप्रैल '2024

II

40

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

6-	fuekZ.k pj.k	O;kolkf;d LokLF; vkSj lqj{kk	<ul style="list-style-type: none"> <li>➤ Bsdsnkjksa }kjk tqVk, x, fuekZ.k Jfedksa ds fy, vLFkk;h 'ksMksa dk fuekZ.kA</li> <li>➤ dk;Z LFkyksa dks lkQ&amp;lqFkjk j[kk tk,xk] èkwy@èkq,a dks [kRe djus ds fy, b"Vre jks'kuh vkSj i;kZIr osafVys'ku çnku fd;k tk,xkA</li> </ul>	lqj{kk foHkkx Bsdsnkj vkSj muds deZpkfj;ksa ds lqj{kr dkedkt dh fuxjkuh djsxkA
7-	fuekZ.k pj.k	lkekftd& vkfFkZd	<ul style="list-style-type: none"> <li>➤ çcaèku çR;{k ,oa vçR;{k nksuksa çdkj ds jkstxkj ds ekè;e ls LFkkuh; yksxksa dks çkFkfedrk nsxk</li> </ul>	ldkjkRed çHkko

**lapkyu pj.k**

fooj.k	'keu mik;
v- midj.k ls ok;q mRItZu vFkkZr	i,baV lkslZst
1- midj.k ls ok;q mRItZu vFkkZr	1- midj.k ls ok;q mRItZu vFkkZr
2- □□□□□□ □□□□□□	2- □□□□□□ □□□□□□
3- Mh-th- lsV (1000 kVA- 2 Nos)	3- Mh-th- lsV (1000 kVA- 2 Nos)
	<ul style="list-style-type: none"> <li>• 10 Vhah,p dh {kerk okyk c;,yj ¼,y,uth pkfyr½ 30 ehVj ls tqM+k gqvk gSA Øec) ÅapkbZA</li> <li>• vpkj cukus ds nksjku fxzi xSlksa dks 30-0 ehVj LVSD ÅapkbZ ds ekè;e ls fv~ou çdkj ds ¶;we LØcj esa Hkstk tkrk gSA</li> <li>• la;a= iflj ds vanj çLrkfor gfjr {ks= 36077-10 oxZ ehVj ¼28-35%½ gS ftlesa 2500 isM+@gsDVs;j dh nj ls 9019 ikSèks gSaA ekunaMksa ds vuqlkj dqy 33% o`{kkjksi.k</li> </ul>



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

III

45

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

	<p>çklr djus ds fy, ifj;kstuk LFky ds Hkhrj daVsuj o`{kkjksi.k esa yxHkx 4-65% dh deh okyk o`{kkjksi.k fd;k tk,xkA</p>										
<p>c- Mhth IsV (1000 kVA- 2 Nos)</p>	<ul style="list-style-type: none"> <li>2 uacj 1000 dsOh, dh {kerk okyk Mh-th- IsV 30 ehVj LVSD ÅapkbZ ¼bZaèku&amp;çk—frd xSI½ Is tqM+k gqvk gSA</li> </ul>										
<p>I- okgu mRItZu</p>	<p>dPps eky vkSj rS;kj eky ds ifjogu ds fy, okgu fudkl ds mRItZu esa thok'e bZaèku ds ngu Is ,lvks,DI] ,uvks,DI] lhvks 'kkfey gSaA ifj;kstuk ds fy, 15 okguksa ¼dPps eky ds fy, 1500 \$ rS;kj eky ds fy, 1500½ dk mi;ksx fd;k tk jgk gS@fd;k tk,xkA ekStwnk ifj;kstuk ds fy, ifjogu fooj.k uhps fn;k x;k gS%</p> <table border="1"> <tr> <td>ifjogu fooj.k</td> <td>dqy ¼la[;k½@fnu</td> </tr> <tr> <td>dPps eky ds fy, V<sup>ad</sup>@V<sup>asyj</sup> ¼425 Vu½A</td> <td>1500 ¼□□□□½</td> </tr> <tr> <td>rS;kj eky ds fy, V<sup>ad</sup>@V<sup>asyj</sup> ¼425 Vu½A</td> <td>1500 ¼□□□□ और □□ ँन □□ ½</td> </tr> </table> <ul style="list-style-type: none"> <li>çcaèk&amp;</li> </ul> <table border="1"> <thead> <tr> <th>ss</th> <th>çcaèk</th> </tr> </thead> <tbody> <tr> <td>ifjogu</td> <td> <ul style="list-style-type: none"> <li>ih;wlh çekf.kr okguksa dk mi;ksx fd;k tk jgk gS@fd;k tk,xk(</li> <li>orZeku esa] okgu rS;kj eky vkSj dPps eky ds ifjogu ds fy, Mhty dk mi;ksx dj jgs gSa vkSj Hkfo"; esa lh,uth okgu dk mi;ksx fd;k tk,xkA</li> <li>xfr lhek 10 fdeh@?kaVka la;a= iflj esa j[kk tk,xk@j[kk tk,xkA</li> <li>la;a= iflj ds vanj çLrkfor gfjr {ks= 36077-10 oxZ ehVj</li> </ul> </td> </tr> </tbody> </table>	ifjogu fooj.k	dqy ¼la[;k½@fnu	dPps eky ds fy, V <sup>ad</sup> @V <sup>asyj</sup> ¼425 Vu½A	1500 ¼□□□□½	rS;kj eky ds fy, V <sup>ad</sup> @V <sup>asyj</sup> ¼425 Vu½A	1500 ¼□□□□ और □□ ँन □□ ½	ss	çcaèk	ifjogu	<ul style="list-style-type: none"> <li>ih;wlh çekf.kr okguksa dk mi;ksx fd;k tk jgk gS@fd;k tk,xk(</li> <li>orZeku esa] okgu rS;kj eky vkSj dPps eky ds ifjogu ds fy, Mhty dk mi;ksx dj jgs gSa vkSj Hkfo"; esa lh,uth okgu dk mi;ksx fd;k tk,xkA</li> <li>xfr lhek 10 fdeh@?kaVka la;a= iflj esa j[kk tk,xk@j[kk tk,xkA</li> <li>la;a= iflj ds vanj çLrkfor gfjr {ks= 36077-10 oxZ ehVj</li> </ul>
ifjogu fooj.k	dqy ¼la[;k½@fnu										
dPps eky ds fy, V <sup>ad</sup> @V <sup>asyj</sup> ¼425 Vu½A	1500 ¼□□□□½										
rS;kj eky ds fy, V <sup>ad</sup> @V <sup>asyj</sup> ¼425 Vu½A	1500 ¼□□□□ और □□ ँन □□ ½										
ss	çcaèk										
ifjogu	<ul style="list-style-type: none"> <li>ih;wlh çekf.kr okguksa dk mi;ksx fd;k tk jgk gS@fd;k tk,xk(</li> <li>orZeku esa] okgu rS;kj eky vkSj dPps eky ds ifjogu ds fy, Mhty dk mi;ksx dj jgs gSa vkSj Hkfo"; esa lh,uth okgu dk mi;ksx fd;k tk,xkA</li> <li>xfr lhek 10 fdeh@?kaVka la;a= iflj esa j[kk tk,xk@j[kk tk,xkA</li> <li>la;a= iflj ds vanj çLrkfor gfjr {ks= 36077-10 oxZ ehVj</li> </ul>										



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

IV

48

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

			<p>¼28-35%½ gS ftlesa 2500 isM+@gsDVs;j dh nj ls 9019 ikSèks gSaA ekunaMksa ds vuqlkj dqy 33% o`{kkjksi.k çklr djus ds fy, ifj;kstuk LFky ds Hkhrj daVsuj o`{kkjksi.k esa yxHkx 4-65% dh deh okyk o`{kkjksi.k fd;k tk,xkA</p>								
<p>HkaMkj.k ;k ifjogu ¼vU; dPps eky½ lfgr lkexzh çcaèku ls gksus okyk {kf.kd mRltZu</p>	<p>lkexzh gSaMfyax èkwy ds d.k Qkbu] yksfMax vkSj vuyksfMax lokbaV] V<sup>a</sup>kalQj lokbaV vkSj HkaMkj.k {ks= ds eq[; çnw"kd gSaA ifjogu la;a= ifjlj ds vanj IHkh vkarfjd IM+dksa ij mM+rh gqbZ èkwy mRiUu gksus dh ifjdYiuk dh xbZ gSA çcaèk&amp;</p> <ul style="list-style-type: none"> <li>➤ ¶+;wftfVo mRltZu dks de djus ds fy, dPps eky dk LFkkukarj.k] yksfMax] vuyksfMax ,d can lfdZV esa fd;k tk,xkA</li> <li>➤ èkwy laHkkfor {ks= esa ikuh dk fNM+dko fd;k tk;sxkA</li> <li>➤ fpr x`g O;oLFkk dh tk,xhA IM+dksa dh IQkbZ djkbZ tk,xhA</li> <li>➤ ykaV ifjlj ds vanj IHkh iDdh IM+dsa fodflr dh tk,axhA</li> <li>➤ le;&amp;le; ij] iDdh IM+d ij ikuh dk fNM+dko djus ls mM+us okyh èkwy dks jksdus ds fy, lrg ue gks tk,xhA</li> <li>➤ xfr lhek 10 fdeh@?kaVk rd lhfer jgsxhA</li> </ul>										
<p>lhost ls nqxZaèk vkSj</p>	<p>lhost@vif'k"V: &amp; ?kjsyw lhost dks çLrkfor ,lVhah ds Hkhrj la;a= LFky ij vuqØfed cSp fj,DVj rduhd ¼{kerk&amp;100 ds,yMh½ dk mi;ksx djds mipkfjr fd;k tkrk gS vkSj mipkfjr ikuh dk mi;ksx rkts ikuh dh [kir dks de djus ds fy, o`{kkjksi.k vkSj ¶yf'kax mís'; ds fy, fd;k tk,xkA 'keu mik; vPNh gkmlhdhfiar dk vH;kl fd;k tk jgk gS vkSj mlh vH;kl dks viuk;k tk,xkA</p>										
<p>[krjukd vif'k"V mRiknu</p>	<p>[krjukd vif'k"V mRiknu vkSj mudk fuiVku bl çdkj gSa</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">Ø-la</td> <td style="width: 30%; text-align: center;">[krjukd vif'k"V ds</td> <td style="width: 15%; text-align: center;">oxZ</td> <td style="width: 15%; text-align: center;">rknkn</td> <td style="width: 30%; text-align: center;">HkaMkj.k dk</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">vuqlw</td> <td style="text-align: center;">dks</td> <td style="text-align: center;">dh rjhdk</td> </tr> </table>	Ø-la	[krjukd vif'k"V ds	oxZ	rknkn	HkaMkj.k dk			vuqlw	dks	dh rjhdk
Ø-la	[krjukd vif'k"V ds	oxZ	rknkn	HkaMkj.k dk							
		vuqlw	dks	dh rjhdk							



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

V

43

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

		<b>çdkj</b>	<b>ph</b>	<b>M</b>	<b>bdkbZ</b>	
	1	jklk;fud dhpM+ vif'k"V ty mipkj ¼Vhah,½ ls	I	Cat- 35.3	16000 TPA	vfèk—r iqupZØ.kdrkZ dks
	2	ç;qä ;k [kpZ fd;k gqvk rsy	I	Cat-5.1	200 TPA	vfèk—r iqupZØ.kdrkZ dks
	3	आयरन □□□□□□□□	I	Cat-5.2	4000 TPA	vfèk—r iqupZØ.kdrkZ dks
Bksl vif'k"V mRiknu	Bksl vif'k"V mRiknu vkSj mudk fuiVku bl çdkj gS%					
		<b>fooj.k</b>	<b>çLrkfor Vhah,</b>	<b>dqy Vhah,</b>	<b>mipkj@fuiVku</b>	
		uxjikfydk Bksl vif'k"V¼0-125 fdyksxzke@fnu@ O;fä½	0-25	0-25	fudVre uxj if'kn dks Hkstk x;k	
		□□□□	0-5	0-5	o`{kkjksi.k ds fy, [kkn ds :i esa mi;ksx fd;k tkrk gS	
		çfØ;k ls LØSi	181-81	181- 81	LFkkuh; ckt+kj esa cspk x;k	
v,ijs'ku pj.k ds nkSjku ty i;kZoj.k	<b>Ø-la</b>	<b>rjy cfg%lzko</b>	<b>ek=k</b>	<b>bdkb</b>	<b>mipkj@fuiVku u dk rjhdk</b>	
	1	?kjsyw lhost	75	KLD	?kjsyw vif'k"V ty 75 KLD dks STP ¼{kerk&100 KLD½ esa mipkfjr fd;k tk,xk vkSj 37-5 KLD mipkfjr ty dks o`{kkjksi.k esa iqu: mi;ksx fd;k	



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

VI

48



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

					tk,xkA vkSj 30 ds,yMh dks ¶yf'kax ç;kstuksa ds fy, iqupZfØr fd;k tk,xkA
2	O;kikj çokg	318.75	KLD	<p>➤ LVst&amp;1% vkSjksfxd çfØ;k ls mRiUu 127-5 KLD vif'k"V dks de COD vkSj de TDS okys ETP&amp;1 ¼160KL {kerk½ esa mipkfjr fd;k tk,xkA</p> <p>➤ pj.k&amp;2% 48-75 KLD ds [kpZ fd, x, vkSj 'khryd vif'k"V ty dks mPp COD vkSj mPp TDS ds ETP 1 &amp; 2 ¼65 KLD {kerk½ esa mipkfjr fd;k tk,xkA</p> <p>➤ bZVhih 1 vkSj bZVhih 2 ls</p>	



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

VII

49

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

					<p>mipkfjr ikuh dks                  MCY;wvkjih&amp;vkjv                  ks vkSj mlds ckn                  ,ebZbZ                  ¼tsM,yMh                  lykaV½ esa                  Hkstk tk,xkA</p> <p>➤ 270 KLD ds lexz                  mipkfjr ikuh dks                  coc ls dwfyax V,oj                  esa mipkj ds ckn                  iqu: mi;ksx fd;k                  tkrk gSA</p> <p>➤ fdlh Hkh vif'k"V                  ty dk fuiVku                  la;a= ifjlj ds ckgj                  tehu ij ugha fd;k                  tk,xkA</p>
--	--	--	--	--	---

<p>èofu                  çnw"k.k                  v,ijs'ku pj.k                  ds nkSjku</p>	<p>'kksj ds lzksr%</p> <ul style="list-style-type: none"> <li>➤ ia[ks] eksVj@batu] yksfMax@vuyksfMax LØSi] Hkkjh midj.k lapkyu ds dkj.k 'kksjA</li> <li>➤ 'keu ds mik;%</li> <li>➤ IHkh midj.k vuqes; 'kksj ekudksa dks iwjk djrs gq, [kjhns tk jgs gSa@fd, tk,axsA</li> <li>➤ xeÊ vkSj ihihbZ dh jksdFkke vkSj gkfu ds fy, çnku fd;k x;k bUlqys'ku 'kksj de djus okys ds :i esa Hkh dk;Z djsxk@djsxkA</li> <li>➤ uhao vkSj lajpukvksa dks daiu vkSj 'kksj dks de djus ds fy, fMt+kbu fd;k tk jgk gS@fd;k tk,xkA</li> <li>➤ fu;fer midj.k j[kj[kko vkSj csgrj dk;Z vknrsa viukbZ tk jgh</li> </ul>
--	--

,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]



t;iqj

	<p>gSa@viukbZ tk,axhA</p> <ul style="list-style-type: none"> <li>➤ Mh-th- lsV dks lhihlhch ekunaMksa ds vuqlkj LVSD ÅapkbZ ds lkFk ,d bufcYV èofud ckM+s esa j[kk x;k gSA</li> <li>➤ Jfedksa dks vko';d lqj{kk vkSj O;fäxr lqj{kk midj.k tSlS bZ;j lyx] bZ;j eQ] gsyev vkfn çnku fd, tk jgs gSa@çnku fd, tk,axsA</li> <li>➤ la;a= ds iflj ds Hkhrj o`{kkjksi.k dk dk;kZUo;u 'kksj dks vo'kksf"kr djsxkA bl çdkj èofu çnw"K.k dks fu;af=r djus esa enn feysxh@feysxhA</li> <li>➤ vR;fèkd 'kksj mRiUu gksus ls cpus ds fy, mfpr Lusgu vkSj gkmlhdhfiav vkerkSj ij dh tk jgh gS@dh tk,xhA</li> <li>➤ i;Zos{kd e'khujh vkSj lkbysalj dh fLFkfr cuk, j[kdj 'kksj dks fu;af=r djus ds fy, ftEesnkj gS@jgsxkA</li> <li>➤ dku lqj{kkRed midj.kksa dk mi;ksxA</li> <li>➤ la;a= iflj ds vanj çLrkfor gfjr {ks= 36077-10 oxZ ehVj ¼28-35%½ gS ftlesa 2500 isM+@gsDVs;j dh nj ls 9019 ikSèks gSaA ekunaMksa ds vuqlkj dqy 33 çfr'kr o`{kkjksi.k çklr djus ds fy, ifj;kstuk LFky ds Hkhrj daVsuj o`{kkjksi.k esa yxHkx 4-65 çfr'kr dh deh okyk o`{kkjksi.k fd;k tk,xkA</li> </ul>
<p>o"kkZ ty laj{k.k</p>	<ul style="list-style-type: none"> <li>• Nr ds 'kh"kZ vkSj iDds {ks=ksa ls ,df=r o"kkZ ty dks pkSuyksa ds ekè;e ls ,d= fd;k tk,xk vkSj o"kkZ ty lap;u xiksa esa Hkstk tk,xkA</li> <li>• 32-4 m<sup>3</sup>@hr dh {kerk ds lkFk Ng o"kkZ ty lap;u lajpuk,a çLrkfor gSaA</li> </ul>
<p>O;kolkf;d LokLF; vkSj lqj{kk</p>	<p>LokLF; [k+rjs%&amp;</p> <ul style="list-style-type: none"> <li>➤ ldsamjh LVhy lykaV esa çeq[k HkksfRd [krjs èkq,a vkSj èkwy] èkqvka] fi?kyh gqbZ èkkrq vkSj 'kksj ds dkj.k gksrs gSaA xSiksa esa eq[; :i ls èkkrq ds èkq,a vkSj èkwy 'kkfey gSaA</li> <li>➤ ekè;fed bLlkr la;a= esa mPp çkFkfedrk okys LokLF; [krjksa esa èkkrq ds èkq,a vkSj d.k 'kkfey gSa] ftUgsa dk;Z okrkj.k esa lcls egRoiw.kZ tksf[keksa ds dkj.kksa ds :i esa igpkuk x;k Fkka</li> <li>➤ vkx vkSj foLQksV-</li> </ul>



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

[krjs&

- HkkSfrd [krjs: Mhth lsV ds fy, HkaMkj.k bZaèku rsy ds :i esa gkbZ LihM Mhty ¼,p,IMh½A
- lkexzh ;k çfØ;kvksa ds lapkyu ds nkSjku jksdFkke ds uqdlku ds dkj.k çfØ;k lacaèkh [krjs] ftlds ifj.kkeLo:i vkx] foLQksV vkfn gks ldrs gSaA
- osfYMax] j[kj[kko] fxjrh oLrqvksa vkfn tSlS ";kaf=d" dk;ksZa ds dkj.k ;kaf=d [krjs & ewy :i ls os tks [krjukd lkefxz;ksa ls tqM+s ugha gSaA
- fo|qr lacaèkh [krjs: bysDV<sup>a</sup>ksD;w'ku] mPp oksYVst Lrj] 'k,VZ lfdZV] vkfnA buesa ls] lkexzh vkSj çfØ;k ds [krjs ;kaf=d vkSj fo|qr [krjksa dh rgyuk esa cgqr vfèkd {kfr {kerk okys gksrs gSa] tks cM+s iSekus ij cgqr lfer gksrs gSaA

'keu ds mik;%&

- O;kogkfjd lhek rd dk;Z {ks= esa ok;q mRItZu ds laHkkfor lzksrksa dks ?ksjuk vkSj vyx djuk(
- mu {ks=ksa esa fujarj dk;Z {ks= dh fuxjkuh çnku djsa tgka vpkud vkSj vçR;kf'kr [krjs mRiUu gks jgs gSa ¼mnkgj.k ds fy, tgka vkfZu ;k gkbM<sup>a</sup>kstu lbukbM dk mRItZu laHko gks ldrk gS½(
- O;fäxr O;kolkf;d LoPNrk uewukdj.k midj.kksa dk mi;ksx djds dk;ZdrkZ tksf[ke dh fuxjkuh djsa(
- çf'k{k.k çnku djuk vkSj vPNh O;fäxr LoPNrk dks çksRlkfgr djuk] vkSj dk;ZLFky ij èkweziku vkSj [kkus ij çfrcaèk yxkuk(
- O;kogkfjd lhek rd çfØ;kvksa vkSj lkexzh çcaèku dks Lopkfyrd vkSj v,ijsVjksa ds fy, layXud çnku djuk(
- dk;Z {ks= lqj{kk ,oa LokLF; lkoèkkfu;kj;
- vkx çfrjksèkh nLrkuska dk çkoèkku
- NhaVksa dks jksdus ds fy, psgjs vkSj vka[kksa dh lqj{kk
- èkq,a dks vanj ysus ls jksdus ds fy, Loh—r Üokl;a=
- i;kZIr osafVys'ku vkSj fudkl dk çkoèkku
- ifjHkkf'kr lwph ds lkFk i;kZIr HkaMkj.k lqfoèkk
- mi;qä LØfcax lekèkku ds lkFk i;kZIr xhyh LØfcax ç.kkyh



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

X

58

	<p>➤ midj.k@e'khujh dk vkofèkd fujh{k.k.kA</p>
lkekftd&vkfF kZd igyw	<ul style="list-style-type: none"> <li>• bl lykaV ds dk;Z'khy gksus ls çR;{k ,oa vçR;{k jkstxkj ds volj iSnk gksus dh laHkkouk gS-</li> <li>• LFkkuh; ykxksa dks 37 ykxksa dk çR;{k jkstxkj tks mudh vkthfodk dks cuk, j[kus esa enn djrk gSA</li> <li>• ifjpkju pj.k ds nkSjku dqN lhbZvkj xfrfofèk;ksa ds dk;kZUo;u ls vçR;{k jkstxkj Hkh mRiUu gksxkA</li> <li>• blds vykok] dPps eky vkSj mRiknksa dks ys tkus ds fy, V<sup>a</sup>dksa dh vkoktkgh ls yxHkx 40 ykxksa dks M<sup>a</sup>kboj vkSj Dyhuj ds :i esa jkstxkj feysxk] vkiwfrZ J`a[kyk ds ckgjh Jfedksa dks fu;fer :i ls {ks= esa yk;k tk,xk] vkSj LFkkuh; foØsrkvksa dks vfrfjä O;olk; çnku fd;k tk,xkA Hkkstu vkSj mudh vU; jkstejkZ dh vko';drk,a çnku djuk] bl çdkj vfrfjä vk; mRiUu djuk</li> <li>• LFkkuh; O;olk;A</li> <li>• vkthfodk esa lqèkkjA</li> <li>• LFkkuh; O;fä;ksa dks ç'f'k{k.k çnku fd;k tk,xkA</li> <li>• tkx#drk dk;ZØe dk vk;kstu fd;k tk,xk-</li> </ul>
LokLF; vkSj lqj{kk	<p>LokLF; vkSj lqj{kk % lykaV esa fuEufyf[kr mik; viuk;s tk;saxs:&amp;</p> <ul style="list-style-type: none"> <li>➤ çnw" k.k fu;a=.k midj.kksa dk fu;fer fujh{k.k vkSj j[kj[kkoA</li> <li>➤ IHkh dk;ZdrkZvksa dks lqj{kk ls lacafèkr dk;Z tSls lqj{kk midj.k] ç'f'k{k.k] lqj{kk iqjLdkj] iksLVj] ukjs vkfn fn, tk,axsA</li> <li>➤ 'kksj okys lzksrksa ds laidZ esa vkus okys Jfedksa dks ihihbZ çnku fd;k tk,xkA</li> <li>➤ deZpkfj;ksa dks ihus ds ikuh vkSj 'kkSpky; dh i;kZIr lqfoèkk,a çnku dh tk,axhA</li> <li>➤ vkx vkSj lqj{kk midj.kksa dk mfpr mi;ksx fd;k tk,xk vkSj fu;fer :i ls j[kj[kko fd;k tk,xkA</li> <li>➤ daiuh tkx:drk dk;ZØe vkSj lkeqnf;d xfrfofèk;kj tSls LokLF;] f'kfoj] ifjokj dY;k.k f'kfoj vkfn pyk,xhA</li> <li>➤ Jfedksa dh fu;fer fpdfRik tkap</li> </ul>
bZ&vif"V	<ul style="list-style-type: none"> <li>• la;a= iflj ds Hkhrj bZ&amp;dpjs dk dksbZ mRiknu ugha gksrk</li> </ul>



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

XI

89

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

çcaèku	gSA
lykfLVd vif'k"V çcaèku	<ul style="list-style-type: none"> <li>la;a= ifljl ds Hkhrj lykfLVd dpjs dk dksbZ mRiknu ugha gksrk gSA</li> </ul>
tSfod i;kZoj.k	<p>tSo fofòèrk ij çfrdwy çHkko dks de djus vkSj vè;;u {ks= dh vkokl fLFkfr esa lqèkkj djus ds fy,: &amp;</p> <ul style="list-style-type: none"> <li>la;a= ifljl ds vanj çLrkfor gfjr {ks= 36077-10 oxZ ehVj ¼28-35%½ gS ftlesa 2500 isM+@gsDVs;j dh nj ls 9019 ikSèks gSaA ekunaMksa ds vuqlkj dqy 33% o`{kkjksi.k çklr djus ds fy, ifj;kstuk LFky ds Hkhrj daVsuj o`{kkjksi.k esa yxHkx 4-65% dh deh okyk o`{kkjksi.k fd;k tk,xkA</li> <li>orZeku esa dqy 12 ua- {ks= esa fofHkUu çtkfr;ksa ds isM+@&gt;kfM+;k; ekStwn gSaA</li> </ul>
oU; thou laj{k.k ;kstuk	ifj;kstuk LFky ds Hkhrj dksbZ vuqlwph&1 çtkfr ugha ikbZ xbZ gSA
çLrkfor gfjr {ks= fodkl	<ul style="list-style-type: none"> <li>çLrkfor ifj;kstuk {ks= esa ,evksbZ,Q vkSj lhlh ds fn'kkfunZs'kksa ds vuqlkj yxHkx 2500 isM+@gsDVs;j Hkwfe ij o`{kkjksi.k fodflr fd;k tk,xkA dqy 9019 ux- ds isM+ yxk, tk,axs-</li> <li>ikSèkkjksi.k iwjh IM+d vkSj la;a= dh lhek vkSj la;a= ifljl ds Hkhrj vU; mi;qä LFkku ij fd;k tk,xkA</li> <li>fuekZ.k dk;Z ds lkFk&amp;lkFk ikSèkkjksi.k Hkh 'kq: fd;k tk,xkA</li> </ul>
gfjr {ks= fodkl ds fy, rduhdsa	lhlhlhch fn'kkfunZs'k ds vuqlkj LFkyk—frd mi;qärk vkSj p;fur çtkfr;ksa ds vkèkkj ij ikSèkksa ds la;kstu dk p;u fd;k tkrk gSA feêh dh fo'ks"krkvksa dks è;ku esa j[kk tk,xkA bls vkèkkj ij vkSj i;kZoj.kh; ifjLFkfr;ksa ds vkèkkj ij o"kZokj o`{kkjksi.k dk;ZØe ds fy, mi;qä ns'kh ikSèkksa dh çtkfr;k; çLrkfor dh xbZ gSaA
gfjr {ks= dk fMt+kbu	ikSèkksa ds p;u esa fuEufyf[kr dkjds dks Hkh è;ku esa j[kk tk,xk% ,dA xSlh; mRItZu ds vo'kks"k.k ds fy,%



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

XII

59

çnw"kdksa ds çfr lfg".kqrk] lkaærk ij] tks rRdky ?kkrd gksus ds fy, cgqr vfèkd ugha gSa] iÙks dh yach vofèk] rkt dh i;kZlr ÅapkbZ ds ekè;e ls] Lora= :i ls mtkxj iÙks] N= esa iÙkksa dk [kqykiu] cM+h ifÙk;kj ¼yach vkSj pkSM+h ykfeuk lrg½ jaèkz fNæksa dh cM+h la[;k jaèkz vPNh rjg ls mtkxj ¼Lrj esa lkekU; ,fiMeZy lrg gksxh½ fuyafcr d.kksa dks gVkus ds fy,% eqdqV dh ÅapkbZ vkSj QSyko ifÙk;kj -<+ MaByksa ij fVdh gksrh gSa] Nky vkSj iÙks ij lrg dh çpqjrk] ds ekè;e ls Nky dk [kqjnkiu] MaByksa ij ,fiMeZy o`f] cxy ds ckyksa dh çpqjrk] ysfeuj lrgksa ij cky ;k rjktw jaèkz lajf{kr ¼Fkk] esgjk @ NYys] cky] vkfn }kjk½ p;fur IHkh ikSèks LFkkuh; :i ls vuqdwfyr gSa] vkSj orZeku LFky mi;qä cxxokuh çFkkvksa ds lkFk muds fodkl dk leFkZu djus esa l{ke gSA yxHkxA 10 QhV vkdkj ¼ÅapkbZ½ ds ikSèks 2500 çfr gsDVs;j ds ?kuRo ij mi;qä nwjh ij yxk, tk,axsA igys 3 o"kksZa ds Hkhrj yxHkx 9019 ikSèks mxk, tkus dk çLrko gSA çLrkfor o`{kkjksi.k fodkl dk;ZØe ds vUrxZr 45-09 yk[k& ctV çLrkfor gSA IHkh ikSèks LFkkuh; :i ls vuqdwfyr gSa vkSj orZeku LFky mi;qä cxxokuh çFkkvksa ds lkFk muds fodkl dk leFkZu djus esa l{ke gSA vPNs o`{kkjksi.k çcaèku ds fy, fodkl vkSj j[kj]kko ds fy, i;kZlr lalkèku vkSj tu'kfä vko';d gS

**8-0 i;kZoj.kh; dkjZokbZ dk;ZØe -**

i;kZoj.k laj{k.k] çcaèku] çnw"k.k fu;a=.k] mipkj vkSj fuxjkuh ds fy, flLVe] mfpr ctVh; çkoèkku fd;k tk,xkSA ifj;kstuk ds i;kZoj.k çcaèku ds fy, vkorÊ O;; fd;k tk,xkA miyCèkrk lqfuf'pr djus ds fy, lexz ifj;kstuk foÙkiks"k.k ds ,d Hkkx ds :i esa çnw"k.k fu;a=.k mik;ksa ds fy, i;kZlr èkujkf'k çnku dh tk,xhA mfpr mipkjksa rFkk lqfoèkkvksa ds EMP ds fy,



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

dqy iwath fuos'k 4000 yk[k #i;s gSA i;kZoj.k çcaèku dk;ZØe ds fy, çLrkfor ykxr dk fooj.k fuEukuqlkj fn;k x;k gS &

**lkj.kh 8% i;kZoj.kh; mik;ksa ds fy, ykxr çkoèkku**

Ø- la	oLrq dk fooj.k	çLrkfor iwathxr ykxr ¼yk[k½	çLrkfor vkorÊ ykxr ¼yk[k½	dqy çLrkfor iwath ykxr ¼yk[k½	dqy çLrkfor vkorÊ ykxr ¼yk[k½	fVli.kh
1	fcanq lzksr] {ks=lzksr vkSj ykbu lzksr ds fy, ok;q mRltZu 'keu mik; viuk;k x;k	1500	500	1500	500	Twin type fume scrubber, Water sprinkling
2	ZLD dks çHkko'khyrk ds lkFk cuk, j[kus ds fy, ty fuoZgu 'keu mik;	200	20	200	20	MEE with MBR technology will be proposed
3	o"kkZ ty laj{k.k	200	20	200	20	--
4	o`{kkjksi.k fodkl	100	10	100	10	--
5	vfXu'keu	1500	150	1500	150	Firefighting equipments as per NBC code are installed and FIRE NOC will be obtained.
6	d,ikZsjsV i;kZoj.kh; ftEesnkjh *vafre bZvkbZ,@bZ,eih fjiksVZ esa okafNr dksbZ Hkh xfrfofèk tksM+h tk,xhA	500	50	500	50	Reduction of carbon and emission trading will be projected
<b>dqy</b>		<b>4000</b>	<b>770</b>	<b>4000</b>	<b>770</b>	<b>--</b>

**9-0 fu"d"kZ -**



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;ij

अप्रैल '2024

XIV

58



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

EXECUTIVE SUMMARY

mijksä ppkZ ls ;g dgk tk ldrk gS fd bl ifj;kstuk ls dksbZ egRoiw-kZ ifj-kke gksus dh laHkkouk ugha gSA mijksä ppkZ ls ;g dgk tk ldrk gS fd bl ifj;kstuk ls dksbZ egRoiw-kZ ifj-kke gksus dh laHkkouk ugha gS A {ks= ds pkjksa vksj gfjr iêh dk fodkl ,d çHkkoh çnw" k.k 'keu rduhd ds lkFk&&lkFk fu;a=.k ds fy, Hkh fd;k tk,xk T;ksfr fLV<sup>a</sup>il çkbosV fyfeVsM ds iflj ls fudyus okys çnw"kdA

\*\*\*\*\*

DRAFT DOR PH



,uds ,uok;jks lfoZlst çkbosV fyfeVsM fyfeVsM]

t;iqj

अप्रैल '2024

XV

53

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

### **TERMS OF REFERENCE**

Standard Terms of Reference. ToR is issued by SEIAA, Haryana vide letter no. File No. SEIAA/HR/2023/426 dated 27.10.2023. in favor of Jyoti Strips Private Limited. Copy of the same is enclosed as **Annexure -I**. The point wise compliance of the TOR is as under:-

**Table 1.1: TOR COMPLIANCE**

S. No.	Items in the letter of the TORs	Reply / Response by the PP
<b>1.</b>	<b>Introduction</b>	
i.	Background about the project	This is a Greenfield project of "Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line" having total Capacity of Various products 7,80,000 MTPA (Metric tons per annum)" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 Sq.m. The total cost of the Project is 800 Cr.
ii	Need of the project	The Company Supplies material to various automobile, home appliances, Pre-Engineered Buildings and Stamping Sectors. Steel Tubes made out of the material is used for plumbing, water mains, firefighting systems, Hollow Sections for structural purposes, Scaffolding, Electrical Poles and Telecom towers. Material is supplied to manufacturers of Compressor Shells also.
iii.	Purpose of the EIA study	To evaluate the existing scenario due to proposed project activity in respect to Air, water, noise, soil, Biological and Socio economic attributes and predict the impacts and suggest its mitigation measures by Environmental Management Plan.
iv.	Scope of the EIA study	As per standard TOR issued by SEIAA, Haryana the scope of the EIA Study includes detailed study of the environment for an area of 10Km radius from the project area. The various environmental parameters like Air, Water, Noise, Land, Biological and Socio-economic aspects attributes cover for the baseline study.
<b>2</b>	<b>Project Description</b>	
i.	Location of the project site	This is a proposed project of "Proposed Cold Rolling Mill



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

covering village, Taluka/Tehsil, District and State	Complex with Galvanizing and colour coating line" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana .The co-ordinates (Latitude -Longitude) of Boundary Pillars of the sites has been given below: -
---	--

Pillars	Latitude	Longitude	Pillars	Latitude	Longitude
1	28°13' 49.432" N	77°18' 31.314" E	17	28°14' 2.236" N	77°18' 24.172" E
2	28°13' 50.833" N	77°18' 31.345" E	18	28°14' 3.333" N	77°18' 22.975" E
3	28°13' 50.836" N	77°18' 31.654" E	19	28°14' 3.715" N	77°18' 22.884" E
4	28°13' 52.438" N	77°18' 31.647" E	20	28°14' 3.764" N	77°18' 23.103" E
5	28°13' 52.453" N	77°18' 29.086" E	21	28°14' 3.873" N	77°18' 23.099" E
6	28°13' 54.055" N	77°18' 29.067" E	22	28°14' 3.863" N	77°18' 37.584" E
7	28°13' 54.093" N	77°18' 22.769" E	23	28°14' 2.146" N	77°18' 37.581" E
8	28°13' 55.727" N	77°18' 22.805" E	24	28°14' 2.113" N	77°18' 43.109" E
9	28°13' 55.746" N	77°18' 19.856" E	25	28°14' 0.630" N	77°18' 43.081" E
10	28°13' 57.356" N	77°18' 19.866" E	26	28°14' 0.622" N	77°18' 37.542" E
11	28°13' 57.355" N	77°18' 22.838" E	27	28°13' 56.366" N	77°18' 37.533" E
12	28°13' 58.621" N	77°18' 22.821" E	28	28°13' 56.409" N	77°18' 34.474" E
13	28°13' 58.589" N	77°18' 25.772" E	29	28°13' 52.776" N	77°18' 34.501" E
14	28°13' 58.963" N	77°18' 25.774" E	30	28°13' 52.822" N	77°18' 34.295" E
15	28°13' 58.954" N	77°18' 27.586" E	31	28°13' 51.933" N	77°18' 33.506" E
16	28°14' 0.696" N	77°18' 25.774" E	32	28°13' 49.436" N	77°18' 32.551" E

ii.	Site accessibility	The project site is accessible by Rail, Road & Air. <ul style="list-style-type: none"> <li>• The project site is easily accessible by NH-2 1.03 km, WSW.</li> <li>• Indira Gandhi International Airport, Delhi – 40 Km, NNW direction</li> <li>• Asaoti Railway Station– 2.35 Km, NE direction.</li> </ul>
iii.	A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places)	A Toposheet of the study area of radius of 10 Km and site location on 1:50,000 on an A3 sheet including all eco-sensitive area is enclosed as <b>Annexure-II</b> .
iv.	Latest High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary	Land use map based on High Resolution Satellite Imagery (GPS) of the proposed expansion project is enclosed as <b>Annexure - III</b> .



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	co-ordinates. Area must include at least 100m all around the project location.	
v.	Environment settings of the site and its surrounding along with map	Environment settings of the site and its surrounding is incorporated in Chapter 2 of EIA/EMP report and the map showing the Environment settings of the site and its surrounding is enclosed as <b>Annexure- II</b> .
vi.	A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.	List of industries with 10 km radius is given as below:

Sr.No.	Name of Industry	Distance (in KM)	Direction
1.	DEE PIPING SYSTEMS, PLANT-2	0.38	E
2.	SIAC SKH INDIA CABS MANUFACTURING PVT LTD	0.50	SW
3.	WIDE INDIA INDUSTRIES	0.95	SW
4.	STERLING TOOLS LIMITED	0.94	SSW
5.	VEEGEE INDUSTRIAL ENTERPRISES	2.50	SW
6.	OOD AND BIOTECH ENGINEERS INDIA PVT. LTD.	3.60	WNW
7.	PROMPT ENTERPRISES PVT. LTD.	3.0	NW
8.	ICD, PIYALA	2.98	NNE
9.	BPCL PIYALA LPG TERRITORY	4.10	NNE
10.	HENNA EXPORTS	1.55	SE
11.	OMP INDIA PVT. LIMITED	1.65	SE
12.	KNORR-BREMSE INDIA PRIVATE LIMITED	3.14	SSE
13.	ICD PALWAL-HIND TERMINALS PVT. LTD.	3.83	SE
14.	ACE- ACTION CONSTRUCTION EQUIPMENT LTD	3.76	SW

vii.	In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/ construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.	No water body present in vicinity of the project site. However, The boundary wall of the project will be 1.15 Km from Pahladpur Distributary in NNE direction.
viii.	In case if the project site is in	Cumulative flood inundation maps generated by National



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.	Disaster Management Authority, 2023 shows that the palwal district is not affected by floods.  Despite this, the project site is 1.14 KM away towards NNE of the Pahladpur Distributary. Attached as <b>Annexure-V</b>
ix.	Type of land, land use of the project site	Industrial land.
x.	Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.	Total project land is acquired for the area of <b>127294.69 sq.m.</b>
xi.	Engineering layout of the area with dimensions depicting existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/ Estate/ Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.	Layout map showing proposed unit viz. storage area, plant area, green area, a utility etc. is enclosed as <b>Annexure -VI.</b>
<b>3.</b>	<b>Forest and wildlife related issues (if applicable):</b>	
i.	Status of Forest Clearance for the use of forest land shall be submitted.	No forest land is involved in the proposed project; thus, no such permission/approval is required.
ii.	Copy of application submitted for	No forest land is involved in the proposed project. Hence,



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.	it is not applicable.		
iii.	The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.	There are no National Park, Sanctuaries, Biosphere Reserves, and Migratory Corridors of Wild animals within 10 Km radius from the proposed site.		
iv.	Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna, if any exists in the study area.	One schedule-I species are found in the buffer zone of the project site namely: Peafowl ( <i>Pavo cristatus</i> )		
<b>4.</b>	<b>Salient features of the project</b>			
i.	Products with capacities in Tons per Annum for the proposed project			
	<b>S. No.</b>	<b>Name</b>	<b>Proposed Capacity (TPA)</b>	<b>Total Capacity (TPA)</b>
	a)	HRPO coils/sheets	120000	120000
	b)	Cold rolled full hard coils	60000	60000
	c)	CRCA coils/sheets	90000	90000



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	d)	Galvanized/galvalume coils	240000	240000			
	e)	Colour coated coils	120000	120000			
	f)	CDW	30000	30000			
	g)	HR tube	30000	30000			
	h)	CR tube	60000	60000			
	i)	Stamping	30000	30000			
	<b>Total capacity</b>		<b>780,000</b>				
ii.	If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.		Not applicable as this is a proposed project of Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line" having total Capacity of Various products 7,80,000 MTPA (Metric tons per annum)".				
iii.	Site preparatory activities.		Clearance of vegetation, surface levelling will be done for the proposed project.				
iv.	List of raw materials required and their source along with mode of transportation		The raw material required and their source along with transportation is given below & incorporated in Chapter 2 of EIA/EMP report :				
	<b>S. No.</b>	<b>Raw Material</b>	<b>Proposed Consumption</b>	<b>Total</b>	<b>Source</b>	<b>Mode of transport</b>	<b>Remarks</b>
	1.	HR Coil	8,40,000TPA	8,40,000TPA	from Tata steel Limited, SAIL, Jindal Steel and Power Limited, Jindal Steel Limited	Transport ed by Trucks	Local Market
v.	Other than raw materials, other chemicals and materials required with quantities and storage capacities.		Other raw material or chemical & materials are required.				
	<b>S.No.</b>	<b>Chemical</b>	<b>Capacity</b>				
	1.	Lime	20 TPD				
	2.	Caustic Soda	200 Lt/day				
vi	Manufacturing process details along with process flow diagram of proposed units.		Manufacturing process details along with process flow diagram of proposed unit are given in Chapter -2 of EIA EMP report.				
vii	Consolidated materials and energy balance for the project		Consolidated materials and energy balance for the proposed project in Chapter 2 of EIA/EMP report.				
viii	Total requirement of surface/ ground water and power with their respective sources, status of		The source of water will be from the ground water. No surface water will be used for the proposed project. Fresh Water requirement for proposed grinding unit is				



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	approval.	about 450.0KLD. The CGWA application is under process.																									
	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Particulars</th> <th>Fresh (KLD)</th> <th>Recycled (KLD)</th> <th>Total Water Demand (KLD)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Industrial</td> <td>382.5</td> <td>270</td> <td>652.5</td> </tr> <tr> <td>2.</td> <td>Domestic</td> <td>67.5</td> <td>30</td> <td>97.5</td> </tr> <tr> <td>3.</td> <td>Plantation and others</td> <td>---</td> <td>37.5*(STP treated waste water will be used in plantation)</td> <td>37.5*(STP treated waste water will be used in plantation)</td> </tr> <tr> <td colspan="2"><b>Total</b></td> <td>450</td> <td>300</td> <td>750</td> </tr> </tbody> </table> <p><b>Source: - Ground water (*-Reuse)</b> <b>Permission for abstraction of ground water from CGWA will be applied soon.</b></p>	S. No.	Particulars	Fresh (KLD)	Recycled (KLD)	Total Water Demand (KLD)	1.	Industrial	382.5	270	652.5	2.	Domestic	67.5	30	97.5	3.	Plantation and others	---	37.5*(STP treated waste water will be used in plantation)	37.5*(STP treated waste water will be used in plantation)	<b>Total</b>		450	300	750	
S. No.	Particulars	Fresh (KLD)	Recycled (KLD)	Total Water Demand (KLD)																							
1.	Industrial	382.5	270	652.5																							
2.	Domestic	67.5	30	97.5																							
3.	Plantation and others	---	37.5*(STP treated waste water will be used in plantation)	37.5*(STP treated waste water will be used in plantation)																							
<b>Total</b>		450	300	750																							
ix	Water balance diagram	Water balance diagram for proposed phase is given in Chapter 2 of EIA/EMP report.																									
x.	Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.	Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase is incorporated in Chapter 4 of EIA report																									
xi.	Man-power requirement.	The proposed project will generate employment for around 2000Nos. Preference for employment will be given to local persons. Following staff & workers will be employed: - <table border="1"> <thead> <tr> <th>Particular</th> <th>Construction Phase</th> <th>Operation Phase</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Permanent</td> <td>250</td> <td>50</td> <td rowspan="4">Preference for employment will be given to local persons</td> </tr> <tr> <td>Skilled</td> <td>500</td> <td>150</td> </tr> <tr> <td>Semi-skilled</td> <td>750</td> <td>300</td> </tr> <tr> <td><b>Total</b></td> <td>1500</td> <td>500</td> </tr> </tbody> </table>	Particular	Construction Phase	Operation Phase	Remarks	Permanent	250	50	Preference for employment will be given to local persons	Skilled	500	150	Semi-skilled	750	300	<b>Total</b>	1500	500								
Particular	Construction Phase	Operation Phase	Remarks																								
Permanent	250	50	Preference for employment will be given to local persons																								
Skilled	500	150																									
Semi-skilled	750	300																									
<b>Total</b>	1500	500																									
xii.	Cost of project and scheduled time of completion	Proposed Project Cost: - Rs 800.0 Crore; Time of Completion: -Within 24 months																									
<b>xiii.</b>	<b>Brief on present status of compliance Expansion/ modernization proposals)</b>																										
a.	Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.	This is proposed project of Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line Environment Impact Assessment for the proposed project is computed and incorporated in Chapter -4 of EIA/EMP report.																									
b.	In case of ground water drawl for the existing unit, action plan for	Proposed project will withdraw the ground water for the industrial and domestic purpose. To reduce the stress on																									





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	phasing out of ground water abstraction in next three years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.	the ground water, the unit has implemented following actions within the plant site which are as follows:- 1. Rain water storage tank is proposed to be installed within the plant site. 2. STP treated water will be reused in plantation. No fresh water will be used.
c.	Copy of all the Environment Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided.	Not applicable as this is a Green Field Project
d.	In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the	Not applicable as this is a Green Field Project



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	conditions of consents from the Regional Office of the SPCB shall be submitted.	
<b>5.</b>	<b>Description of the Environment</b>	
i.	Study period	Site - Specific Micro Meteorological data (Temperature, Relative Humidity, Hourly Wind Speed and Direction, Rainfall) were collected during Pre-Monsoon season (1st March-31st May'2023) and description is incorporated in Chapter-3 of EIA/EMP report.
ii.	Approach and methodology for data collection as furnished as per the TOR.	The approach and methodology is given in chapter 3 of EIA/EMP report.
iii.	Interpretation of each environment attribute shall be enumerated and summarized as given below:	Interpretation of Environmental attributes of air, ground & surface, water, noise, Soil, Biological Environmental, Land use, Socioeconomic study is incorporated in Chapter 3 of EIA/EMP report.
a.	Ambient air quality	The raw data of all AAQ measurement for 12 weeks of eight stations as per frequency given in the NAAQM Notification of November 2009 has been given in Chapter - 3 of EIA/ EMP report.  The Baseline Monitoring report of same has been enclosed as <b>Annexure- VII</b>
b.	Ambient Noise quality	Noise level monitoring was carried out at 8 locations within the study area during post monsoon season (Oct, Nov, Dec, 2022) as per CPCB/ MoEF&CC guidelines. The analysis is given in Chapter- 3, Chapter - 3 of EIA/ EMP report.
c.	Surface water quality	Three surface water samples were collected and were analyzed for various parameters as per CPCB/ MoEF&CC guidelines. The analysis has been given in Chapter - 3 of EIA/ EMP report.
d.	Ground water quality	Eight locations of ground water samples have been analyzed for various parameters as per CPCB/ MoEF&CC guidelines. The analysis has been given in Chapter - 3 of EIA/ EMP report.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

e.	Soil quality	Soil sampling was carried out at Eight locations within the study area during post monsoon season (Oct, Nov, Dec, 2022). The analysis is given in Chapter – 3 of EIA/ EMP report.
f.	Biological Environment	The study of flora and fauna (terrestrial) in the study area is given in Chapter – 3 of EIA/ EMP report.
g.	Land use	Land use of the study area in section 3.10, Chapter-3 of EIA report
h.	Socio-economic environment	Socio economic survey is incorporated in Chapter – 3 of EIA/ EMP report.

**6. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)**

i.	Identification of potential impacts in the form of a matrix for the construction and operation phase for all the environment components as per the TOR	Potential impacts in the form of a matrix for the construction and operation phase for all the environment components as per the TOR is given in Chapter 4 of EIA/EMP report.
ii.	Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	Impact on ambient air quality in Construction as well as proposed phase is incorporated in Chapter 4- of EIA /EMP report.
iii.	Details of stack emissions from the existing as well as proposed activity.	The stack details of proposed is given below:-

S. No.	Parameters	Units	Stack-I (BOILER 10TPH) (Fuel-LNG)	Stack II (PICKLING)	Stack - III (DG SET 1000KVA) (fuel-NG)	Stack - IV (DG SET 1000KVA) (fuel-NG)
1	Stack Height	m	30	30	30	30
2	Top diameter of flue	m <sub>e</sub>	0.85	0.6	0.3	0.3
3	Flue gas velocity	m/s	10	8	10	10
4	Exit Flue gas temperature	K	433	323	453	453
5	Flue gas flow rate	m <sup>3</sup> /s	5.67	2.26	0.707	0.707
6	Emission rate at stack exit					
A	PM <sub>10</sub> emission rate	g/s	0.15	0.04	0.024	0.024
B	PM <sub>2.5</sub> emission rate	g/s	0.1	0.03	0.02	0.02



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

C	NO <sub>x</sub>	g/s	0.78	--	0.14	0.14
D	CO	g/s	0.39	--	0.07	0.07
E	Acid Mist	g/s	--	0.0315	--	--
7	APCM attached	---	N/A	FUME SCRUBBER	N/A	N/A

iv.	<p>Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period</p>	<p>Order to predict the incremental particulate emissions, AERMOD Version 7.1.0 model was used to predict changes in air quality i.e., maximum ground level concentration (GLC's) of PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and CO due to the proposed project activity. The inputs required for the model is:-</p> <ul style="list-style-type: none"> <li>Hourly meteorological data</li> <li>Source data</li> <li>Receptor data</li> <li>Programme control parameters.</li> </ul> <p>The GLC's were predicted for the scenario, with EMP in the project.</p> <p>Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area is done.</p> <p>Isopleths showing ground level concentration has been given in chapter 4, Sub- heading – 4.33..5 of the EIA/EMP report. . Maximum ground level concentration due to project activities are as follows:</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Maximum Incremental Concentration (µg/m<sup>3</sup>)</th> </tr> </thead> <tbody> <tr> <td>PM<sub>10</sub></td> <td>0.813</td> </tr> <tr> <td>PM<sub>2.5</sub></td> <td>0.588</td> </tr> <tr> <td>NO<sub>2</sub></td> <td>2.408</td> </tr> <tr> <td>HCL Mist</td> <td>0.265</td> </tr> <tr> <td>CO (8 hrly)</td> <td>2.808</td> </tr> </tbody> </table>	Pollutant	Maximum Incremental Concentration (µg/m <sup>3</sup> )	PM <sub>10</sub>	0.813	PM <sub>2.5</sub>	0.588	NO <sub>2</sub>	2.408	HCL Mist	0.265	CO (8 hrly)	2.808
Pollutant	Maximum Incremental Concentration (µg/m <sup>3</sup> )													
PM <sub>10</sub>	0.813													
PM <sub>2.5</sub>	0.588													
NO <sub>2</sub>	2.408													
HCL Mist	0.265													
CO (8 hrly)	2.808													
	Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of													



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	emissions.					
iii.	Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	Impact on ambient Noise quality in Construction as well as proposed phase is incorporated in Chapter 4- of EIA /EMP report.				
iv	Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	<p>➤ There will be no major impact of the transportation of the raw materials and end products on the surrounding environment due to proposed project as proper mitigation measures will be adopted.</p> <p>➤ The impact of the transport of the raw material and end products on the surrounding environment has been assessed as a Line Source Emissions. The emission rate computed for the proposed incremental load for transportation is as follows: -</p> <table border="1"> <thead> <tr> <th>Emission Source</th> <th>Emission rate</th> </tr> </thead> <tbody> <tr> <td>Line emissions</td> <td>PM<sub>10</sub> - 1.65 x 10<sup>-3</sup> g/s/m PM<sub>2.5</sub> - 6.63 x 10<sup>-4</sup> g/s/m NO<sub>x</sub> - 4.9 x 10<sup>-5</sup> g/s/m CO - 2.1 x 10<sup>-5</sup> g/s/m</td> </tr> </tbody> </table>	Emission Source	Emission rate	Line emissions	PM <sub>10</sub> - 1.65 x 10 <sup>-3</sup> g/s/m PM <sub>2.5</sub> - 6.63 x 10 <sup>-4</sup> g/s/m NO <sub>x</sub> - 4.9 x 10 <sup>-5</sup> g/s/m CO - 2.1 x 10 <sup>-5</sup> g/s/m
Emission Source	Emission rate					
Line emissions	PM <sub>10</sub> - 1.65 x 10 <sup>-3</sup> g/s/m PM <sub>2.5</sub> - 6.63 x 10 <sup>-4</sup> g/s/m NO <sub>x</sub> - 4.9 x 10 <sup>-5</sup> g/s/m CO - 2.1 x 10 <sup>-5</sup> g/s/m					
v	Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	No impact on soil quality with suitable measures is envisaged to the proposed activity. During Site levelling work, top soil will be removed. Top soil will be stored separately for the plantation purpose. Impact & mitigation measures for soil quality in Construction as well as proposed phase is incorporated in Chapter 4- of EIA /EMP report.				
vi	Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	Impact & mitigation measures for Land use in Construction as well as proposed phase is incorporated in Chapter 4- of EIA /EMP report.				



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX		TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED		
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119		
vii	Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	Impact & mitigation measures for surface water in Construction as well as proposed phase is incorporated in Chapter 4- of EIA /EMP report. No waste water will be discharged outside the plant premises.
viii	Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	Ground water will be withdrawn for proposed project. Total fresh water requirement for proposed project will be 450 KLD. . Impact & mitigation measures for ground water in Construction as well as proposed phase is incorporated in Chapter 4- of EIA /EMP report.
ix	Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	Impact terrestrial and aquatic habitat in Construction as well as proposed phase is incorporated in Chapter 4- of EIA /EMP report.
x	Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	Impact socio-economic environment in Construction as well as proposed phase is incorporated in Chapter 4- of EIA /EMP report.
xi	Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase	For Occupational & safety Hazards following measures will be taken: ➤ All employees will be trained, educated and encouraged to follow best and safe work practices. ➤ Personnel Protective Equipments like face mask, earmuffs, ear plugs, gloves, safety goggles and safety boots is already provided.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

		<ul style="list-style-type: none"> <li>➤ Awareness programme regarding the use, maintenance and up-keep of materials will be conducted on regular basis so that employees are trained to handle the equipment properly.</li> <li>➤ Regular mock drill will be performed.</li> </ul>
<b>7.</b>	<b>Analysis of Alternatives (Technology &amp; Site)</b>	
i.	Project scenario	The proposed project of Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line" having total Capacity of Various products 7,80,000 MTPA (Metric tons per annum)" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 Sq.m.
ii.	Site alternative	No alternative site is considered as proposed project lies in industrial area, Tatarpur, Palwal, Haryana.
iii.	Technical and social concerns	No alternate technology is considered. The technology already adopted for manufacturing for Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line .Social study and their outcome is incorporated in Chapter -4 of EIA/EMP report.
iv.	Conclusion	The operation of the proposed adopts system to have least impact on the environment, and thus have an overall positive impact on the society and the region.
<b>8.</b>	<b>Environmental Monitoring Program</b>	
i.	Details of the Environment Management Cell	Details of the Environment Management Cell is incorporated in Chapter 6 of EIA/EMP report.
ii.	Performance monitoring schedule for all pollution control devices shall be furnished.	Monitoring schedule for all pollution control devices is incorporated and given in Chapter 6 of EIA/EMP report.
<b>iii.</b>	<b>Corporate Environment Policy</b>	
a.	Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.	The Company has a well laid down Environmental Policy under the supervision of Environmental Cell. Enclosed as <b>Annexure -VIII</b>
b.	Does the Environment Policy	



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX		TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED		
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119		
	prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.	
c.	What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given	The company has well defined hierarchical system to deal with the environmental issues and for ensuring compliance with the Environmental Clearance conditions.
d.	Does the company have system of reporting of non-compliances / violations of environment norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report	Management Representative will appraise the highest authority on quarterly basis regarding the performance of the plant on environmental measures.
iv.	Action plan for post-project environment monitoring matrix: as per the TOR	Action plan for post-project environment monitoring in operation phase is given in Chapter -6 of EIA/EMP report.
<b>9.</b>	<b>Additional Studies</b>	
i.	Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).	This is a drat EIA/EMP report for Public hearing. After public hearing the entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings will be attached with Final EIA/EMP report.
ii.	Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated	The details of issues raised during Public Hearing addressed with proceeding and time bound action plan will be incorporated in Chapter 7 of EIA/EMP report.





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	30/09/2020 as per the TOR	
iii.	Risk assessment <ul style="list-style-type: none"> <li>Methodology</li> <li>Hazard identification</li> <li>Frequency analysis</li> <li>Consequence analysis</li> <li>Risk assessment outcome</li> </ul>	Risk Assessment methodology, hazard identification is incorporated in Chapter-7 of EIA/EMP Report.
iv.	Emergency response and preparedness plan	Onsite and Offsite Disaster (Natural and Manmade) Preparedness and Emergency Management Plan is incorporated in Chapter-7 of EIA/EMP Report.
<b>10.</b>	<b>Project Benefits</b>	
i.	Environment benefits	Environment benefits due to the Proposed project is incorporated in Chapter 8 of EIA/EMP report.
ii.	Social infrastructure	Social infrastructure improvement details due to the proposed project are incorporated in Chapter 8 of EIA/EMP report.
iii.	Employment and business opportunity	During the operation phase total 2000 employees will be given employment by the industry. The employment will be given as per their skill set. Due to proposed industry, other allied activity and business are also envisaged.
iv.	Other tangible benefits	<ul style="list-style-type: none"> <li>The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> <li>Twin type fume scrubber is proposed to be installed to control emissions from the manufacturing process</li> <li>The solid waste generated from the process at plant site is Sent to Nearest Municipal Council.</li> <li>318.75 KLD water generation in the process will be sent to ETP1 &amp; ETP2. Treated water from ETP 1 and ETP 2 will be sent to WRP-RO followed by MEE (ZLD plant)</li> <li>The overall treated water of 270KLD is reused</li> </ul>



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

		<p>after treatment in COC to Cooling Tower.</p> <ul style="list-style-type: none"> <li>Domestic sewage 75 KLD will be treated STP (Capacity-100KLD) and 37.5 KLD of Treated water will be reused in plantation. And 30 KLD will be recycled for flushing purposes.</li> <li>No waste water will be disposed of on ground outside the plant premises.</li> <li>Installed LED Lights at admin building and street lights inside the plant premises.</li> </ul>
<b>11.</b>	<b>Environment Cost Benefit Analysis</b>	
i.	Net present value	The details are given in Chapter- 9 of EIA/EMP report
ii.	Internal rate of return	
iii.	Benefit cost ratio	
iv.	Cost effectiveness analysis	
<b>12.</b>	<b>Environment Management Plan (Construction and Operation phase)</b>	
i	Air quality management plan	Environment Management plan with respective environmental attributes is incorporated in Chapter 10 of EIA/EMP report.
ii	Noise quality management plan	
iii	Solid and hazardous waste management plan	
iv	Effluent management plan	
v	Storm water management plan	
vi	Rain water harvesting plan	
vii	Occupational health and safety management plan	
viii	Green belt development plan	<ul style="list-style-type: none"> <li>The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> </ul>
ix.	Socio-economic management plan	The details are incorporated in Chapter-10 of EIA
x.	Wildlife conservation plan (In case of presence of schedule I species)	<p>One schedule-I species are found in the buffer zone of the project site namely:</p> <p>Peafowl (Pavo cristatus)</p>



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

xi.	Total capital cost and recurring cost/annum for environment pollution control measures shall be included.	Total capital cost of Rs4000 lacs. and recurring cost of Rs. 770 lac for Environmental pollution Control Measures. The details breakup of the same are given below:																																																								
	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Description of Item</th> <th>Proposed capital cost (Lacs)</th> <th>Proposed Recurring cost (Lacs)</th> <th>Total proposed Capital Cost (Lacs)</th> <th>Total proposed Recurring Cost (Lacs)</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Air Emission mitigation measure adopted for point source, area source and line source</td> <td>1500</td> <td>500</td> <td>1500</td> <td>500</td> <td>Twin type fume scrubber, Water sprinkling</td> </tr> <tr> <td>2</td> <td>Water discharge mitigation measures to maintain ZLD with effectiveness</td> <td>200</td> <td>20</td> <td>200</td> <td>20</td> <td>MEE with MBR technology will be proposed</td> </tr> <tr> <td>3</td> <td>Rain water Harvesting</td> <td>200</td> <td>20</td> <td>200</td> <td>20</td> <td>--</td> </tr> <tr> <td>4</td> <td>Plantation Development</td> <td>100</td> <td>10</td> <td>100</td> <td>10</td> <td>--</td> </tr> <tr> <td>5</td> <td>Fire fighting</td> <td>1500</td> <td>150</td> <td>1500</td> <td>150</td> <td>Firefighting equipments as per NBC code are installed and FIRE NOC will be obtained.</td> </tr> <tr> <td>6</td> <td>Corporate Environmental Responsibility <i>*Any activity desired in the Final EIA /EMP report will be added.</i></td> <td>500</td> <td>50</td> <td>500</td> <td>50</td> <td>Reduction of carbon and emission trading will be projected</td> </tr> <tr> <td colspan="2"><b>Total</b></td> <td><b>4000</b></td> <td><b>770</b></td> <td><b>4000</b></td> <td><b>770</b></td> <td>--</td> </tr> </tbody> </table>	S. No.	Description of Item	Proposed capital cost (Lacs)	Proposed Recurring cost (Lacs)	Total proposed Capital Cost (Lacs)	Total proposed Recurring Cost (Lacs)	Remarks	1	Air Emission mitigation measure adopted for point source, area source and line source	1500	500	1500	500	Twin type fume scrubber, Water sprinkling	2	Water discharge mitigation measures to maintain ZLD with effectiveness	200	20	200	20	MEE with MBR technology will be proposed	3	Rain water Harvesting	200	20	200	20	--	4	Plantation Development	100	10	100	10	--	5	Fire fighting	1500	150	1500	150	Firefighting equipments as per NBC code are installed and FIRE NOC will be obtained.	6	Corporate Environmental Responsibility <i>*Any activity desired in the Final EIA /EMP report will be added.</i>	500	50	500	50	Reduction of carbon and emission trading will be projected	<b>Total</b>		<b>4000</b>	<b>770</b>	<b>4000</b>	<b>770</b>	--	
S. No.	Description of Item	Proposed capital cost (Lacs)	Proposed Recurring cost (Lacs)	Total proposed Capital Cost (Lacs)	Total proposed Recurring Cost (Lacs)	Remarks																																																				
1	Air Emission mitigation measure adopted for point source, area source and line source	1500	500	1500	500	Twin type fume scrubber, Water sprinkling																																																				
2	Water discharge mitigation measures to maintain ZLD with effectiveness	200	20	200	20	MEE with MBR technology will be proposed																																																				
3	Rain water Harvesting	200	20	200	20	--																																																				
4	Plantation Development	100	10	100	10	--																																																				
5	Fire fighting	1500	150	1500	150	Firefighting equipments as per NBC code are installed and FIRE NOC will be obtained.																																																				
6	Corporate Environmental Responsibility <i>*Any activity desired in the Final EIA /EMP report will be added.</i>	500	50	500	50	Reduction of carbon and emission trading will be projected																																																				
<b>Total</b>		<b>4000</b>	<b>770</b>	<b>4000</b>	<b>770</b>	--																																																				
13.	Conclusion of the EIA study	The details are given in Chapter -11 of EIA/EMP report.																																																								
14.	In addition to the above, any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit	There is no litigation pending against the proposed project.																																																								



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.	
--	--	--

### Special Conditions

1.	A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.	3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius is incorporated with MRL details of project site and RL of nearby sources of water in Chapter 3 of EIA/EMP report.																							
2.	Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.	The CREP guidelines are incorporated in Chapter -10 of EIA/EMP report.																							
3.	Plan for solid wastes utilization	The solid waste generation and their disposal are as follows:																							
	<table border="1"> <thead> <tr> <th rowspan="2">Particulars</th> <th colspan="3">Waste Quantity in TPD</th> <th rowspan="2">Treatment/ disposal</th> </tr> <tr> <th>Type of Waste</th> <th>proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Sludge TPA</td> <td>STP Sludge</td> <td>0.5</td> <td>0.5</td> <td>Used as manure for plantation</td> </tr> <tr> <td>Municipal Solid Waste (@0.125 Kg/ day</td> <td>Biodegradable</td> <td>0.25</td> <td>0.25</td> <td>Sent to Nearest Municipal site</td> </tr> <tr> <td>Scrap from Process</td> <td>Scrap</td> <td>181.81</td> <td>181.81</td> <td>Sold to Local market</td> </tr> </tbody> </table>	Particulars	Waste Quantity in TPD			Treatment/ disposal	Type of Waste	proposed	Total	Sludge TPA	STP Sludge	0.5	0.5	Used as manure for plantation	Municipal Solid Waste (@0.125 Kg/ day	Biodegradable	0.25	0.25	Sent to Nearest Municipal site	Scrap from Process	Scrap	181.81	181.81	Sold to Local market	
Particulars	Waste Quantity in TPD			Treatment/ disposal																					
	Type of Waste	proposed	Total																						
Sludge TPA	STP Sludge	0.5	0.5	Used as manure for plantation																					
Municipal Solid Waste (@0.125 Kg/ day	Biodegradable	0.25	0.25	Sent to Nearest Municipal site																					
Scrap from Process	Scrap	181.81	181.81	Sold to Local market																					
4.	Plan for utilization of energy in off gases (coke oven, blast furnace)	Not Applicable																							
5.	System of coke quenching adopted with full justification	Not Applicable.																							
6.	Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB	The hazardous waste generation and their disposal are as follows:																							



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	Guidelines, may be mentioned in case of handling scrap and other recycled materials																														
	<table border="1"> <thead> <tr> <th colspan="5">Hazardous Waste Quantity in TPA</th> <th rowspan="2">Treatment/ disposal</th> </tr> <tr> <th>Type of Waste</th> <th>Schedule</th> <th>Code</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Chemical Sludge from waste water treatment (TPA)</td> <td>1</td> <td>35.3</td> <td>16000</td> <td>16000</td> <td>Send to registered recyclers</td> </tr> <tr> <td>Used Oil or Spent Oil</td> <td>1</td> <td>5.1</td> <td>200</td> <td>200</td> <td>Send to registered recyclers</td> </tr> <tr> <td>Iron oxide</td> <td>1</td> <td>5.2</td> <td>4000</td> <td>4000</td> <td>Send to registered recyclers</td> </tr> </tbody> </table>	Hazardous Waste Quantity in TPA					Treatment/ disposal	Type of Waste	Schedule	Code	Proposed	Total	Chemical Sludge from waste water treatment (TPA)	1	35.3	16000	16000	Send to registered recyclers	Used Oil or Spent Oil	1	5.1	200	200	Send to registered recyclers	Iron oxide	1	5.2	4000	4000	Send to registered recyclers	
Hazardous Waste Quantity in TPA					Treatment/ disposal																										
Type of Waste	Schedule	Code	Proposed	Total																											
Chemical Sludge from waste water treatment (TPA)	1	35.3	16000	16000	Send to registered recyclers																										
Used Oil or Spent Oil	1	5.1	200	200	Send to registered recyclers																										
Iron oxide	1	5.2	4000	4000	Send to registered recyclers																										
7.	Details on toxic metal content in the waste material and its composition and end use (particularly of slag).	Not Applicable																													
8.	Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.	Not Applicable																													
9.	100 % dolo char generated in the plant shall be used to generate power	Not Applicable																													
10.	Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilize the fines generated in the process	Not applicable																													
	No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.	Not Applicable.																													
	Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].	<p>The details are given below:</p> <table border="1"> <thead> <tr> <th>Emission Particular</th> <th>Standard</th> </tr> </thead> <tbody> <tr> <td>Particulate matter</td> <td>50mg/Nm<sup>3</sup></td> </tr> <tr> <td>CO</td> <td>1 %( max.)</td> </tr> <tr> <th>Effluent (mg/l)</th> <th>Standard</th> </tr> </tbody> </table>	Emission Particular	Standard	Particulate matter	50mg/Nm <sup>3</sup>	CO	1 %( max.)	Effluent (mg/l)	Standard																					
Emission Particular	Standard																														
Particulate matter	50mg/Nm <sup>3</sup>																														
CO	1 %( max.)																														
Effluent (mg/l)	Standard																														



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	TOR COMPLIANCE
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

		pH	6.0-8.5	
		BOD , 3 days at 27°C	30	
		COD	250	
		Suspended Solids	50	
		Oil & Grease	10	

DRAFT FOR PH



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER - 1</b> <b>INTRODUCTION</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

# CHAPTER-I

## INTRODUCTION

DRAFT FOR PH



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

1

79

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER - 1  
INTRODUCTION**CHAPTER - I****INDEX**

<b>1.1</b>	<b>INTRODUCTION.....</b>	<b>3</b>
<b>1.2</b>	<b>SITE HISTORY.....</b>	<b>3</b>
<b>1.3</b>	<b>IDENTIFICATION OF PROJECT AND PROJECT PROPONENT.....</b>	<b>4</b>
<b>1.4</b>	<b>MARKET SCENARIO.....</b>	<b>4</b>
<b>1.5</b>	<b>BRIEF DESCRIPTION OF NATURE OF THE PROJECT.....</b>	<b>5</b>
<b>1.5.1</b>	<b>NATURE OF THE PROJECT.....</b>	<b>5</b>
<b>1.5.2</b>	<b>SIZE OF THE PROJECT.....</b>	<b>5</b>
<b>1.6</b>	<b>NEED FOR THE PROJECT AND ITS IMPORTANCE TO THE COUNTRY OR REGION.....</b>	<b>5</b>
<b>1.7</b>	<b>EIA PURPOSE.....</b>	<b>6</b>
<b>1.7.1</b>	<b>Scope of the Study.....</b>	<b>7</b>
<b>1.7.2</b>	<b>Regulatory Compliance.....</b>	<b>8</b>

\*\*\*\*\*



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

2

86



## CHAPTER-1

### INTRODUCTION

#### 1.1 INTRODUCTION

Jyoti Strips Private Limited is a Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA (Metric tons per annum)" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 Sq.m. The proposed capacity of the project is given below:

**Table 1: Proposed Production Capacity**

S. No.	Name	Proposed Capacity (TPA)	Total Capacity (TPA)
a)	HRPO coils/sheets (Hot Rolled Pickled And Oiled)	120000	120000
b)	Cold rolled full hard coils	60000	60000
c)	CRCA coils/sheets (Cold Rolled Close Annealed)	90000	90000
d)	Galvanized/galvalume coils	240000	240000
e)	Colour coated coils	120000	120000
f)	CDW (Cold Drawn Welded)	30000	30000
g)	HR tube (Hot Rolled)	30000	30000
h)	CR tube (Cold-rolled)	60000	60000
i)	Stamping	30000	30000
<b>Total capacity</b>		<b>780,000</b>	

The project area is 127294.69 Sq.m. No additional land is required. The proposed project cost is 800 Cr. The proposed project is categorized under **3(a) {(Metallurgical Industries (ferrous & non-ferrous) - All other non-toxic secondary metallurgical processing industries >5000 tones/annum)}** of Gazette Notification dated 14<sup>th</sup> September, 2006 and its subsequent amendments. The project is categorized as B-1 category.

The application for obtaining Terms of Reference along with all documents was submitted to SEIAA, Haryana online vide proposal no. SIA/HR/IND1/438851/2023 dated 11.10.2023. ToR (Terms of Reference) is issued by SEIAA, Haryana vide letter no. File No. SEIAA/HR/2023/426 dated 27.10.2023. Copy of the same is enclosed as **Annexure- I**.

EESPL is assigned the EIA/EMP based on the eligibility of accreditation as per NABET to carry out EIA/EMP report preparation for obtaining Environmental Clearance from SEAC, Haryana.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER - 1  
INTRODUCTION

Based on field visit and monitoring, potential environmental impacts due to the proposed project activities are identified, evaluated and their suitable mitigation measures are incorporated in draft EIA/EMP report in sync with the defined Terms of Reference (TOR) issued by SEIAA, Haryana.

Public Hearing will be conducted as per EIA Notification 14<sup>th</sup> September' 2006 and its subsequent amendments.

## 1.2 SITE HISTORY

- The site is a converted industrial land parcel, The details for the same are mentioned below;

S.No.	Letter No.	Date	Khasra No.	Area (sq.m.)
1.	Memo No. PL-1443-JE(S)-2017/3660	27-02-2017	Khasra No. 40/13,14,17/1,18,17/2,23,24 and 42/4 of village jatoal and 76/8,9,10/2,11/1,11/2,11/3,12/2,12/1,13,18,19/1,19/2,20,23/2,24,77/15/1 min, 15/2 min, 98/4, 7 min and 8/1 min of village prithla sector-11, prithla district palwal	53674.76
2.	Memo No. PL-1443-B-PA(SS)-2018/5405	09.02.2018	Khasra No. 38/21,23/1,22,40/2,3/1,8/2,9 of village maidapur and 40/7 of village jatola, secotr-11, palwal	18714.60
3.	Memo No. PL-1443-JE(SK)-2019/6273	06.03.2019	One year extension of CLU permission issued vide memo no. 3660 dated 27.02.2017 upto 26.02.2020	--
4.	Memo No. PL-1443-JE(SK)-2020/3896	10.02.2020	Further one year extension of CLU permission issued vide memo no. 3660 dated 27.02.2017 upto 26.02.2021	--
5.	Memo No. PL-1443-JE(SK)-2020/3893	10.02.2020	Two-year extension of CLU permission issued vide memo no. 5405 dated 09.02.2018 upto 09.02.2020	--
6.	Application No. CLU/PL-1681A	06.08.2021	Additional CLU has been applied for khasra no. 38/16/2 min, 17 min, 18/1 min, 18/2 min, 19min, 20min,23/2,24/1,25/1,25/2/2,40/3/2,4/1,4/2/1, 4/2/2/5/1,5/2,6,8/1,15/1	35406.82 7
7.	Memo No. CLU/PL-1681A/CTP/6757/2022	11.03.2022	A letter of intent for grant of additional change of and use has been issued with reference to the application dated 06.08.2021	--

- The project is located at Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana
- The project site falls on Survey of India Toposheet No. 53H/3,4,7&8.
- The geographical location with respect to boundary pillars of the proposed project are given below:-

**Table 3: Geographical Position of the Boundary Pillars**

Pillars	Latitude	Longitude	Pillars	Latitude	Longitude
---------	----------	-----------	---------	----------	-----------



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

4

38

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 1 INTRODUCTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

1	28°13' 49.432" N	77°18' 31.314" E	17	28°14' 2.236" N	77°18' 24.172" E
2	28°13' 50.833" N	77°18' 31.345" E	18	28°14' 3.333" N	77°18' 22.975" E
3	28°13' 50.836" N	77°18' 31.654" E	19	28°14' 3.715" N	77°18' 22.884" E
4	28°13' 52.438" N	77°18' 31.647" E	20	28°14' 3.764" N	77°18' 23.103" E
5	28°13' 52.453" N	77°18' 29.086" E	21	28°14' 3.873" N	77°18' 23.099" E
6	28°13' 54.055" N	77°18' 29.067" E	22	28°14' 3.863" N	77°18' 37.584" E
7	28°13' 54.093" N	77°18' 22.769" E	23	28°14' 2.146" N	77°18' 37.581" E
8	28°13' 55.727" N	77°18' 22.805" E	24	28°14' 2.113" N	77°18' 43.109" E
9	28°13' 55.746" N	77°18' 19.856" E	25	28°14' 0.630" N	77°18' 43.081" E
10	28°13' 57.356" N	77°18' 19.866" E	26	28°14' 0.622" N	77°18' 37.542" E
11	28°13' 57.355" N	77°18' 22.838" E	27	28°13' 56.366" N	77°18' 37.533" E
12	28°13' 58.621" N	77°18' 22.821" E	28	28°13' 56.409" N	77°18' 34.474" E
13	28°13' 58.589" N	77°18' 25.772" E	29	28°13' 52.776" N	77°18' 34.501" E
14	28°13' 58.963" N	77°18' 25.774" E	30	28°13' 52.822" N	77°18' 34.295" E
15	28°13' 58.954" N	77°18' 27.586" E	31	28°13' 51.933" N	77°18' 33.506" E
16	28°14' 0.696" N	77°18' 25.774" E	32	28°13' 49.436" N	77°18' 32.551" E

### 1.3 IDENTIFICATION OF PROJECT AND PROJECT PROPONENT

Jyoti Strips Private Limited ('JSPL or the 'Company') was incorporated on January 18, 2007, Jyoti Strips Private Limited is an ISO 9001:2015 company which was originally incorporated by Mr. Naresh Kumar and Late Sh. Harprasad Garg in 2007. Before this, promoters of the company had set up a Proprietorship Company for trading of Iron & Steel. The promoter group are into this business for more than 30 years. The Head Office is situated at B-103 Mithapur Extention, Badarpur New Delhi DL 110044 IN. As on September 30, 2020. JSPL is engaged in trading, cutting and slitting of flat steel products viz. HR coils / sheets, CR Coils / sheets and plates. JSPL has presence (sales depots / steel processing centres) at various locations like Ludhiana (Punjab), Jaipur (Rajasthan), Faridabad (Haryana), Delhi and Raipur (Chhattisgarh). JSPL has established market presence serving the customers in the northern region of India and enjoys healthy relationship with its clients given its focus on quality, timely supplies and responsive customer service. JSPL is well equipped with plant & machinery and infrastructure with staff strength of about 650 people including both skilled and unskilled persons. Committed to continuously standardize, improvise & innovate its product offerings, JSPL supplies products to Auto, Auto-Component, Infrastructure, Electrical, Accumulator, Barrel Ancillary, Fabricator and General Engineering industries and has over 2,000 client base Pan India. JSPL caters to automobile industry, bicycle industry, furniture, drums and barrels, precision tubes, home appliances and sheet metal components etc.



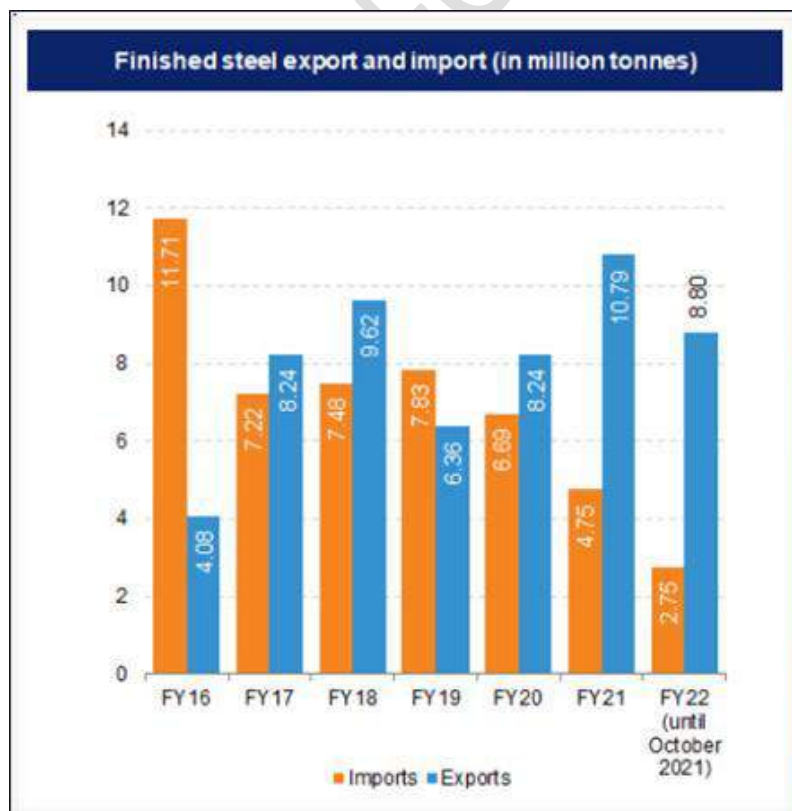
<b>Name and address of the Applicant</b>	<b>Jyoti Strips Private Limited</b> Mr. Sanjay Batra (Chief executive head) Address S-320 FIRST FLOOR GREATER KAILASH 1 SOUTH DELHI 110048 Mobile no 9811840212 Email: - sanjaybatra@jyotistrrips.com
--	---

#### 1.4 DEMAND - SUPPLY GAP

In order to meet the in-house demand and also to meet the market requirement in timely manner the project is undertaken.

##### 1.4.1. MARKET SCENARIO

In the past 10-12 years, India's steel sector has expanded significantly. Production has increased by 75% since 2008, while domestic steel demand has increased by almost 80%. The capacity for producing steel has grown concurrently, and the rise has been largely organic. In FY22, the production of crude steel and finished steel stood at 133.596 MT and 120.01 MT, respectively. The consumption of finished steel stood at 105.751 MT in FY22. In April 2022, India's finished steel consumption stood at 9.072 MT. In April-July 2022, the production of crude steel and finished steel stood at 40.95 MT and 38.55 MT respectively



Ref: <https://www.ibef.org/industry/steel>



**1.5 BRIEF DESCRIPTION OF NATURE OF THE PROJECT****1.5.1 NATURE OF THE PROJECT**

The proposed project is categorized under **3(a) {(Metallurgical Industries (ferrous & non-ferrous) - All other non-toxic secondary metallurgical processing industries >5000 tones/annum)}** of Gazette Notification dated 14<sup>th</sup> September, 2006 and its subsequent amendments. The project is categorized as B-1 category.

**1.5.2 SIZE OF THE PROJECT****Table 1.1: proposed Capacity**

S. No.	Name	Proposed Capacity (TPA)	Total Capacity (TPA)
a)	HRPO coils/sheets	120000	120000
b)	Cold rolled full hard coils	60000	60000
c)	CRCA coils/sheets	90000	90000
d)	Galvanized/galvalume coils	240000	240000
e)	Colour coated coils	120000	120000
f)	CDW	30000	30000
g)	HR tube	30000	30000
h)	CR tube	60000	60000
i)	Stamping	30000	30000
<b>Total capacity</b>		<b>780,000</b>	

**1.6 NEED FOR THE PROJECT AND ITS IMPORTANCE TO THE COUNTRY AND OR REGION**

The Company Supplies material to various automobile, home appliances, Pre-Engineered Buildings and Stamping Sectors. Steel Tubes made out of the material is used for plumbing, water mains, firefighting systems, Hollow Sections for structural purposes, Scaffolding, Electrical Poles and Telecom towers. Material is supplied to manufacturers of Compressor Shells also.

**1.7 EIA PURPOSE**

The project is categorized under item **3(a) {(Metallurgical Industries (ferrous & non-ferrous) - All other non-toxic secondary metallurgical processing industries >5000 tones/annum)}** of Schedule, EIA Notification dated Sep 14<sup>th</sup>, 2006 and its subsequent amendments issued by MoEF&CC, New Delhi.

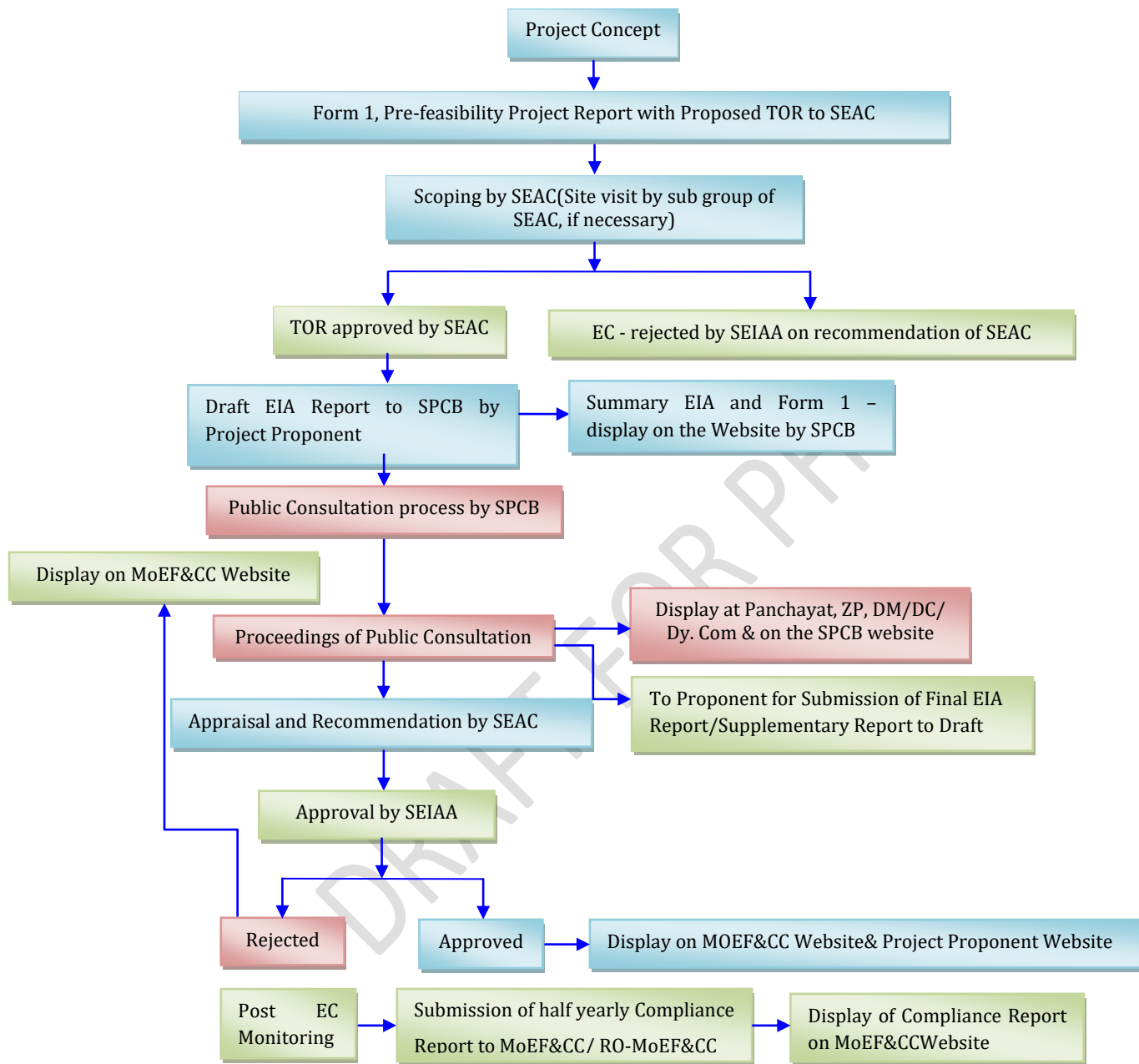
The Environmental Clearance process for the proposed cold rolling mill complex is comprised of three stages. These stages in sequential order are: -

1. Scoping;
2. Public Hearing will be conducted as per EIA Notification 14<sup>th</sup> September' 2006 and its subsequent amendments.
3. Appraisal



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 1 INTRODUCTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

The flow chart depicting these stages to obtain the prior Environmental Clearance for the proposed project is as given below: -



**Fig1.2: Environmental Clearance process for Category 'B' project**

### 1.7.1 Scope of the Study

The scope of the EIA Study includes detailed study of the environment for an area of 10Km radius from the project area as per Prescribed TOR issued by SEIAA, Haryana. The various environmental parameters like Air, Water, Noise, Land, Biological and Socio-economic aspects attributes cover for the baseline study.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 1 INTRODUCTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## 1.7.2 Regulatory Compliance

### Applicable rules and regulations to proposed project

S.No.	Rules and Regulations
1.	Environment (Protection) Act, 1986
2.	EIA Notification, 2006 and subsequent amendments thereafter
3.	Air (Prevention and Control of Pollution) Act, 1981 and subsequent amendments
4.	The Water (Prevention and Control of Pollution) Act, 1974 and subsequent amendments
5.	Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and subsequent amendments
6.	The Solid Waste Management Rules, 2016 and subsequent amendments
7.	Plastic Waste Management Rules, 2016 and subsequent amendments
8.	E-Waste Management Rules, 2016 and subsequent amendments
9.	The Wild Life (Protection) Act, 1972 and subsequent amendments
10.	Biological Diversity Act, 2002 and subsequent amendments
11.	The Public Liability Insurance Act, 1991 and subsequent amendments
12.	The Factories Act, 1948 and subsequent amendments
13.	The Batteries (Management and Handling) Rules, 2001 and subsequent amendments.
14.	Biomedical waste management rules, 2016

\*\*\*\*\*



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

9

83

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

DRAFT FOR PH

## CHAPTER-2 PROJECT DESCRIPTION





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## CHAPTER-2 INDEX

2.1	PROJECT DESCRIPTION.....	12
2.2	SITE DETAILS .....	13
2.2.1	LOCATION OF THE PROJECT .....	13
2.2.2	SITE ACCESSIBILITY (Accessibility to Project Site) .....	16
2.2.3	Environmental Settings of the Site .....	17
2.2.5	List of Industries within 10Km Radius of Study Area.....	19
2.2.6	DETAILS OF PROJECT SITE WITHIN THE VICINITY OF WATER BODIES .....	20
2.2.5	TYPE OF LAND & LAND USE.....	20
2.2.6	<i>Engineering layout plan with area statement.....</i>	21
2.3	DETAILS OF FOREST AND WILDLIFE .....	23
2.5	SALIENT FEATURES OF THE PROJECT .....	23
2.5.1	PRODUCTION DETAILS .....	23
2.5.2	SIZE OR MAGNITUDE OF OPERATION .....	24
2.5.2	BRIEF ON PRESENT STATUS OF THE PROJECT .....	24
2.5.3	RAW MATERIALS REQUIRED ALONG WITH ESTIMATED QUANTITY, LIKELY SOURCE AND MODE OF TRANSPORTATION OF RAW MATERIALS.....	25
2.5.4	MANUFACTURING PROCESS DESCRIPTION .....	25
2.5.5	MATERIAL BALANCE & ENERGY BALANCE .....	28
2.6	POWER, WATER SUPPLY AND OTHER INFRASTRUCTURE REQUIREMENTS.....	29
2.6.1	POWER.....	29
2.6.2	FUEL REQUIREMENT.....	29
2.6.3	WATER DEMAND .....	29
2.6.4	MANPOWER REQUIREMENTS.....	31
2.6.5	DETAILS OF EMISSION, EFFLUENTS, HAZARDOUS WASTE GENERATION AND THEIR MANAGEMENT DURING CONSTRUCTION AS WELL AS OPERATION PHASE.....	31
2.7	PROPOSED SCHEDULE FOR APPROVAL AND IMPLEMENTATION .....	31
2.8	<i>Ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source. Permission will be obtain from CGWA for ground water withdrawal .....</i>	31
2.9	WASTE GENERATION DETAILS .....	32
2.10	EQUIPMENT DETAILS .....	32
2.12	ASSESSMENT OF NEW & UNTESTED TECHNOLOGY FOR THE RISK OF TECHNOLOGICAL FAILURE.....	33



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## CHAPTER-2

### PROJECT DESCRIPTION

#### 2.1 PROJECT DESCRIPTION

Jyoti Strips Private Limited is a Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prit hla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m.

The proposed project is categorized under item **3(a) Metallurgical industries (ferrous & nonferrous) of Schedule, EIA Notification dated Sep 14th, 2006 and its subsequent amendments issued by MOEF&CC.**

#### 2.2 SITE DETAILS

##### 2.2.1 LOCATION OF THE PROJECT

Proposed Greenfield Project for Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana. The project site falls in Survey of India Toposheet No. 53H/3,4,7&8. The geographical location with respect to boundary pillars of the project are:-

**Table 2.1: Geographical Position of the Boundary Pillars**

Pillars	Latitude	Longitude	Pillars	Latitude	Longitude
1	28°13' 49.432" N	77°18' 31.314" E	17	28°14' 2.236" N	77°18' 24.172" E
2	28°13' 50.833" N	77°18' 31.345" E	18	28°14' 3.333" N	77°18' 22.975" E
3	28°13' 50.836" N	77°18' 31.654" E	19	28°14' 3.715" N	77°18' 22.884" E
4	28°13' 52.438" N	77°18' 31.647" E	20	28°14' 3.764" N	77°18' 23.103" E
5	28°13' 52.453" N	77°18' 29.086" E	21	28°14' 3.873" N	77°18' 23.099" E
6	28°13' 54.055" N	77°18' 29.067" E	22	28°14' 3.863" N	77°18' 37.584" E
7	28°13' 54.093" N	77°18' 22.769" E	23	28°14' 2.146" N	77°18' 37.581" E
8	28°13' 55.727" N	77°18' 22.805" E	24	28°14' 2.113" N	77°18' 43.109" E
9	28°13' 55.746" N	77°18' 19.856" E	25	28°14' 0.630" N	77°18' 43.081" E
10	28°13' 57.356" N	77°18' 19.866" E	26	28°14' 0.622" N	77°18' 37.542" E
11	28°13' 57.355" N	77°18' 22.838" E	27	28°13' 56.366" N	77°18' 37.533" E
12	28°13' 58.621" N	77°18' 22.821" E	28	28°13' 56.409" N	77°18' 34.474" E
13	28°13' 58.589" N	77°18' 25.772" E	29	28°13' 52.776" N	77°18' 34.501" E
14	28°13' 58.963" N	77°18' 25.774" E	30	28°13' 52.822" N	77°18' 34.295" E
15	28°13' 58.954" N	77°18' 27.586" E	31	28°13' 51.933" N	77°18' 33.506" E
16	28°14' 0.696" N	77°18' 25.774" E	32	28°13' 49.436" N	77°18' 32.551" E



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

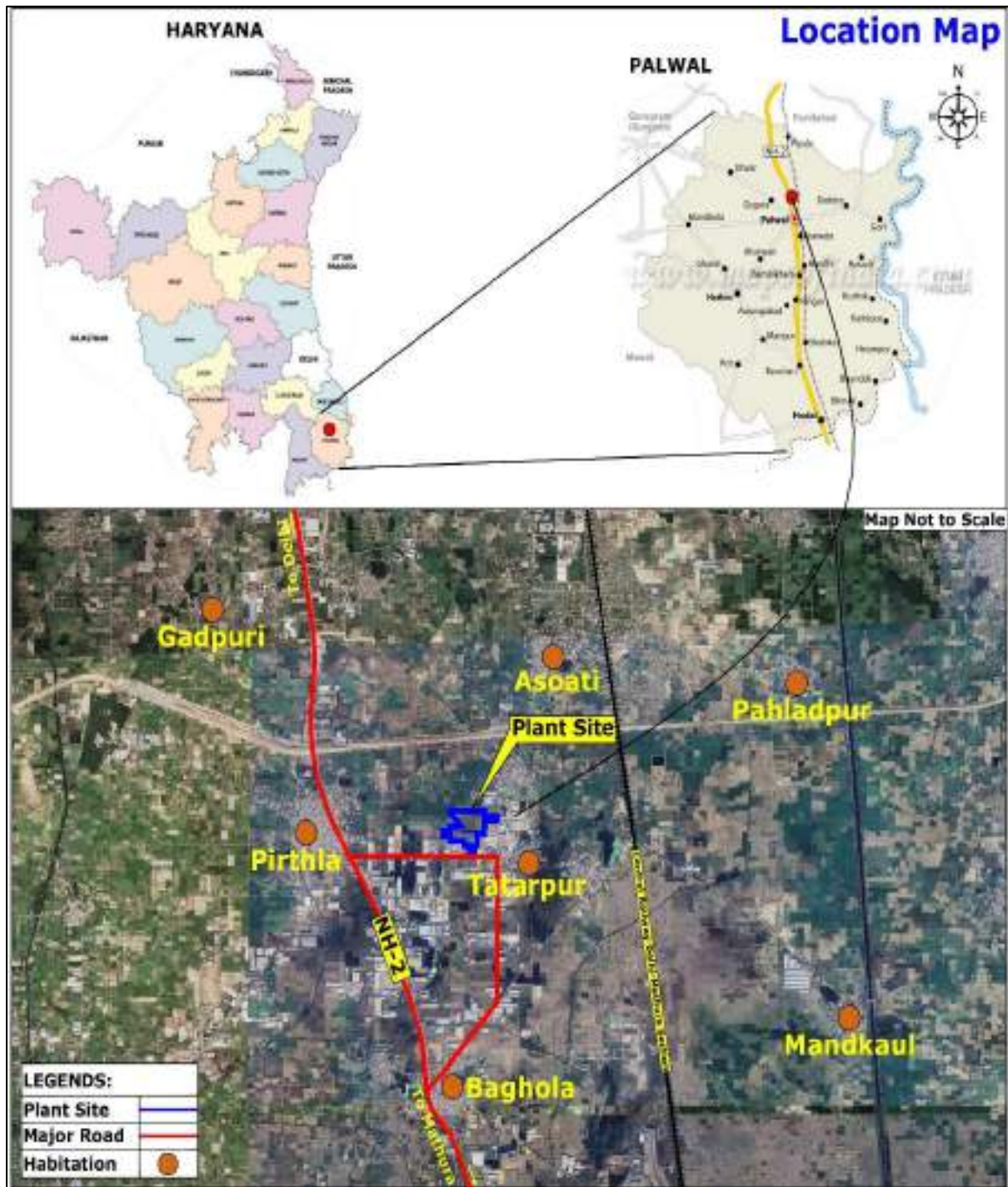


Figure 2.2: Location Map of Project Site



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER-2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

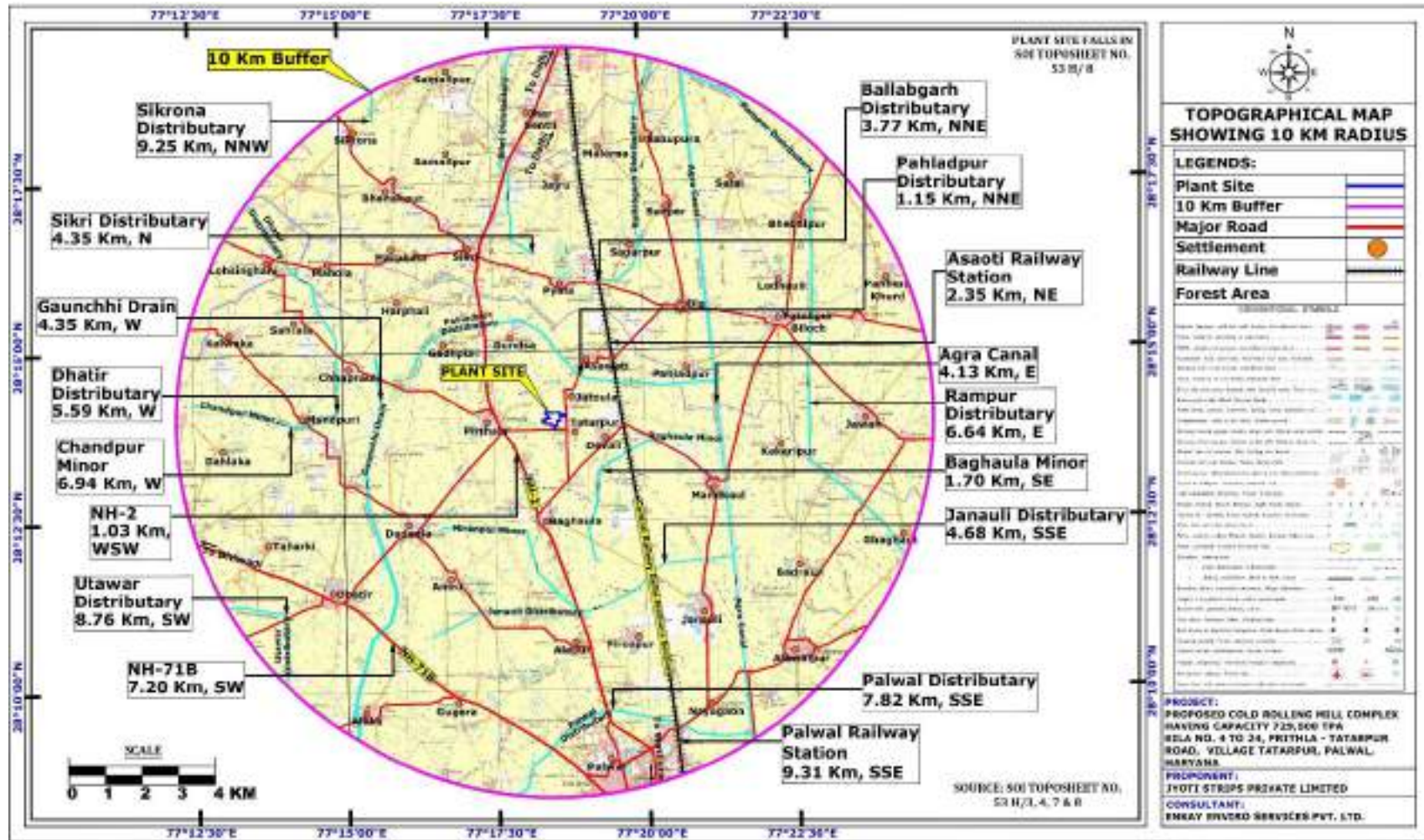


Figure 2.3: Topographical map of the project site with surrounding features



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

14

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## 2.2.2 SITE ACCESSIBILITY (Accessibility to Project Site)

### A. NEAREST RAILWAY STATION

The details of nearest railway station is given below:

**Table 2.2(a): Nearest Railway station**

Particulars	Name	Distance, Direction (From Project Boundary)
Railway Station	Asaoti Railway Station	2.35 Km, NE
	Palwal Railway Station	9.31 Km, SSE

### B. NEAREST AIRPORT

The nearest airport detail is as follows:-

**Table 2.2(b): Nearest Airport**

Particulars	Name	Distance, Direction (From Project Boundary)
Airport	Indira Gandhi International Airport -New Delhi	40Km, NNW

### C. NEAREST HIGHWAY

The nearest State Highway/National Highway detail is as follows:-

**Table 2.2(c): Nearest Highway**

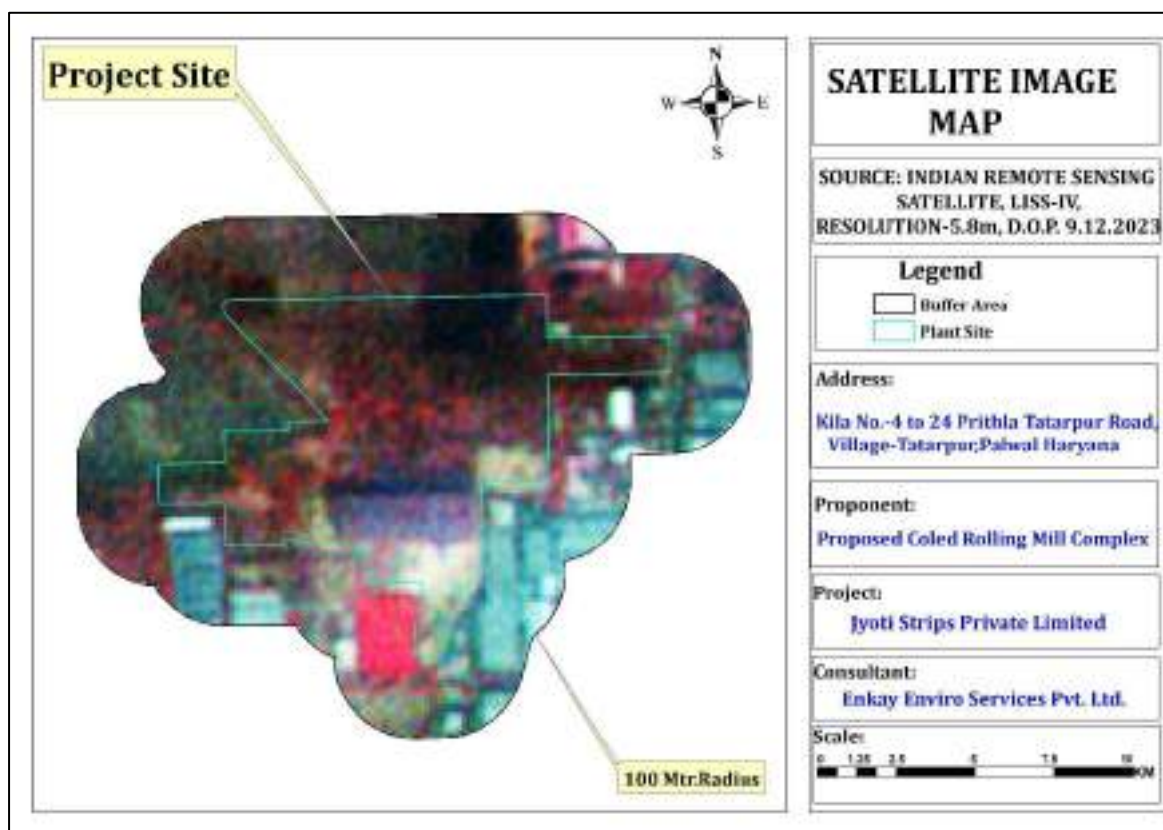
S. No.	Particulars	Connectivity	Distance (Km) (From Project Boundary)	
			Distance (Km)	Direction
1	NH-2	Mathura to Delhi	1.03 Km	WSW
2	NH-71B	Bhiwadi to Palwal	7.20 Km	SW

**2.2.2 Latest High-resolution satellite image data having 1 m – 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location**

Latest high resolution satellite image is attached below.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	



### 2.2.3 Environmental Settings of the Site

Figure 2.3 is showing the Environmental Settings of the surrounding area along with Topographical Map.

S. No.	Particulars	Details
1.	Name of the Project	Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA
2.	Applicant	Jyoti Strips Private Limited
3.	Location	located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana.
4.	Plot Area	127294.69 Sq.m.(No additional land is required)
5.	Land Type	Industrial Land
7.	Toposheet No.	53H/3,4,7&8
8.	Terrain & Elevation	Flat terrain with Highest - 198 MSL; Lowest - 192 MSL.
9.	Nearest Habitation	Tatarpur, 0.43 Km, SE
10.	Nearest Major Town	Town: Palwal, 8.17, S
14.	Nearest Tourist Places	None within the study area.
15.	Defense Installations	None within the study area.
16.	Archaeological Sites	None within the study area.
17.	Eco-sensitive Zones	None within the study area.
18.	Reserved/ Protected Forest	None within 10 km from project site



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

16

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

19. Nearest Streams/ Rivers/ Bodies	Streams/ Water	<b>S. No.</b>	<b>Particulars</b>	<b>Distance (Km)</b> <b>(From Project Boundary)</b>	<b>Direction</b>	
		<b>Water Bodies</b>				
		1.	Pahladpur Distributary	1.15 Km	NNE	
		2.	Baghaura Minor	1.70 Km	SE	
		3.	Ballabgarh Distributary	3.77 Km	NNE	
		4.	Agra Canal	4.13 Km	E	
		5.	Sikri Distributary	4.35 Km	N	
		6.	Gaunchhi Drain	4.35 Km	W	
		7.	Janauli Distributary	4.68 Km	SSE	
		8.	Dhatir Distributary	5.59 Km	W	
		9.	Rampur Distributary	6.64 Km	E	
		10.	Chandpur Minor	6.94 Km	W	
		11.	Palwal Distributary	7.82 Km,	SSE	
		12.	Utawar Distributary	8.76 Km	SW	
13.	Sikrona Distributary	9.25 Km	NNW			
<i>(Source: All distances are taken with respect to S.O.I. GT Sheet).</i>						
20. Medical facilities and educational facilities	Medical facilities and educational facilities	Dispensary and Govt. Hospital and education facility are given below:-				
		<b>S. No.</b>	<b>Name</b>	<b>Distance</b> <b>(From Project</b> <b>Boundary)</b>	<b>Direction</b>	
		<b>Medical Facility</b>				
		1.	Nobel Charitable Hospital - GT Road, Prithla	1.16 Km	W	
		2.	ESI Dispansary Prithla	1.67 Km	WNW	
		3.	Shri Hari Hospital, Tatarpur	1.67 Km	WNW	
		<b>Schools</b>				
		1.	Govt Primary School Tatarpur	0.48 Km	ESE	
		2.	Govt. Primary School Jatola	0.58 Km	NNE	
		3.	BDM Public School, Tatarpur	0.66 Km	E	
		4.	GPS Prithla	1.27 Km	W	
		5.	Govt.Girl High School Prithla	1.40 Km	W	
		6.	Chotu Ram Public School Prithla	1.60 Km	WNW	
		7.	Govt Girls Sr. Sec. School, Prithla	1.70 Km	WNW	
<i>(Source: All distances are taken with respect to S.O.I. GT Sheet).</i>						
21.	Seismic Zone	As per the 2002 Bureau of Indian Standards (BIS) seismic zone map of India, categorized as "High Damage Risk" Zone-IV.				

### 2.2.5 List of Industries within 10Km Radius of Study Area

The details and map are given below:

**Table 2.3: List of Industries within 10Km Radius from project site**

Sr.No.	Name of Industry	Distance (in KM)	Direction
1.	DEE PIPING SYSTEMS, PLANT-2	0.38	E
2.	SIAC SKH INDIA CABS MANUFACTURING PVT LTD	0.50	SW



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

17

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

3.	WIDE INDIA INDUSTRIES	0.95	SW
4.	STERLING TOOLS LIMITED	0.94	SSW
5.	VEEGEE INDUSTRIAL ENTERPRISES	2.50	SW
6.	OOD AND BIOTECH ENGINEERS INDIA PVT. LTD.	3.60	WNW
7.	PROMPT ENTERPRISES PVT. LTD.	3.0	NW
8.	ICD, PIYALA	2.98	NNE
9.	BPCL PIYALA LPG TERRITORY	4.10	NNE
10.	HENNA EXPORTS	1.55	SE
11.	OMP INDIA PVT. LIMITED	1.65	SE
12.	KNORR-BREMSE INDIA PRIVATE LIMITED	3.14	SSE
13.	ICD PALWAL-HIND TERMINALS PVT. LTD.	3.83	SE
14.	ACE- ACTION CONSTRUCTION EQUIPMENT LTD	3.76	SW

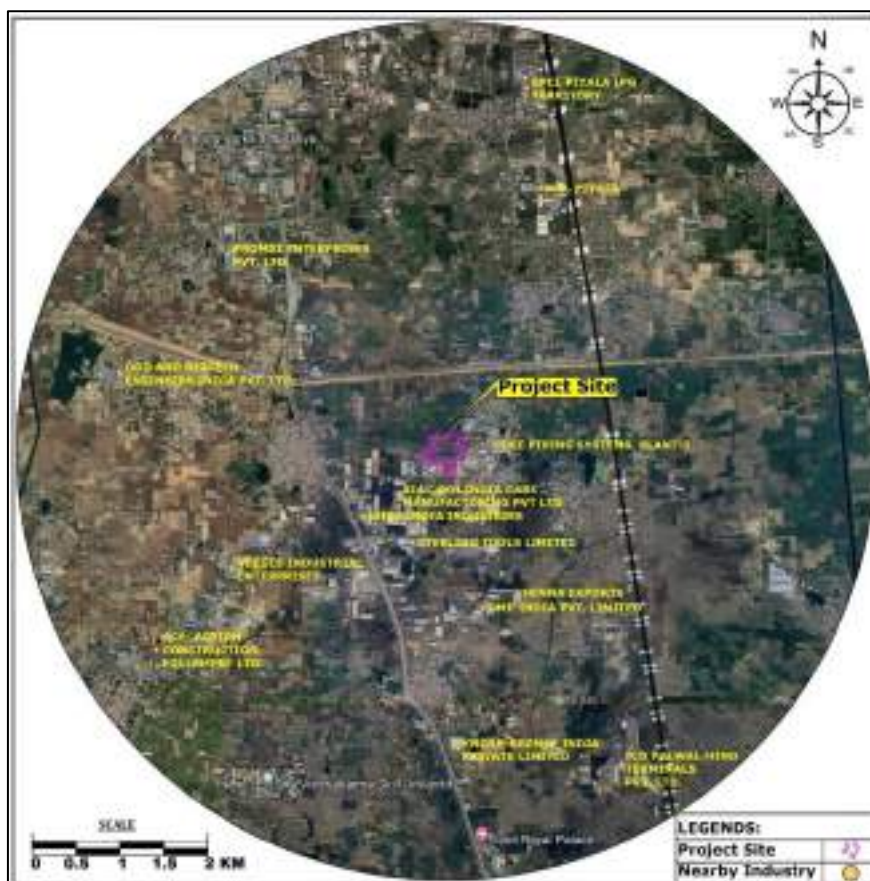


Figure 2.4: List of Industries within 10Km Radius of Study Area Map

2.2.6 DETAILS OF PROJECT SITE WITHIN THE VICINITY OF WATER BODIES

S. No.	Particular	Remarks
1.	<b><i>In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland,</i></b>	The boundary wall of the project will be 1.15 Km from Pahladpur



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

18



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	<b><u>Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.</u></b>	Distributary in NNE direction.
2.	<b><u>In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/ Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&amp;CC Office Memorandum dated 14/02/2022.</u></b>	Cumulative flood inundation maps generated by National Disaster Management Authority, 2023 shows that the palwal district is not affected by floods. Despite this, the project site is 1.14 KM away towards NNE of the Pahladpur Distributary. Attached as annexure-V
3.	<b><u>In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run-off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.</u></b>	Not Applicable.

## 2.2.5 TYPE OF LAND & LAND USE

### Status of Land

The proposed project lies in Tatarpur Village, Palwal, Haryana. So no change in the land use is required. The Land use break-up of total land area has been given below:-

**Table 2.5: Land use Break Up of the proposed project site**

S. No.	Land Use	Area (Sq.m)	Percentage (%)
		Proposed Area	
1.	Plant Area	55219.97	43.38
2.	Paved Area (Road, Corridor, )	35,997.62	28.27
3.	Green Area	36,077.10	28.35
4.	Open area	0.0	0.0
	<b>Total</b>	<b>127294.69</b>	<b>100</b>

The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

### 2.2.6 Engineering layout plan with area statement

The plant layout is showing Admin Block, Manufacturing process area, Plantation, Raw material storage area, Finished Goods storage area, parking area, Assembly point, Utility area etc. is given in in Figure 2.5.

DRAFT FOR PH



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

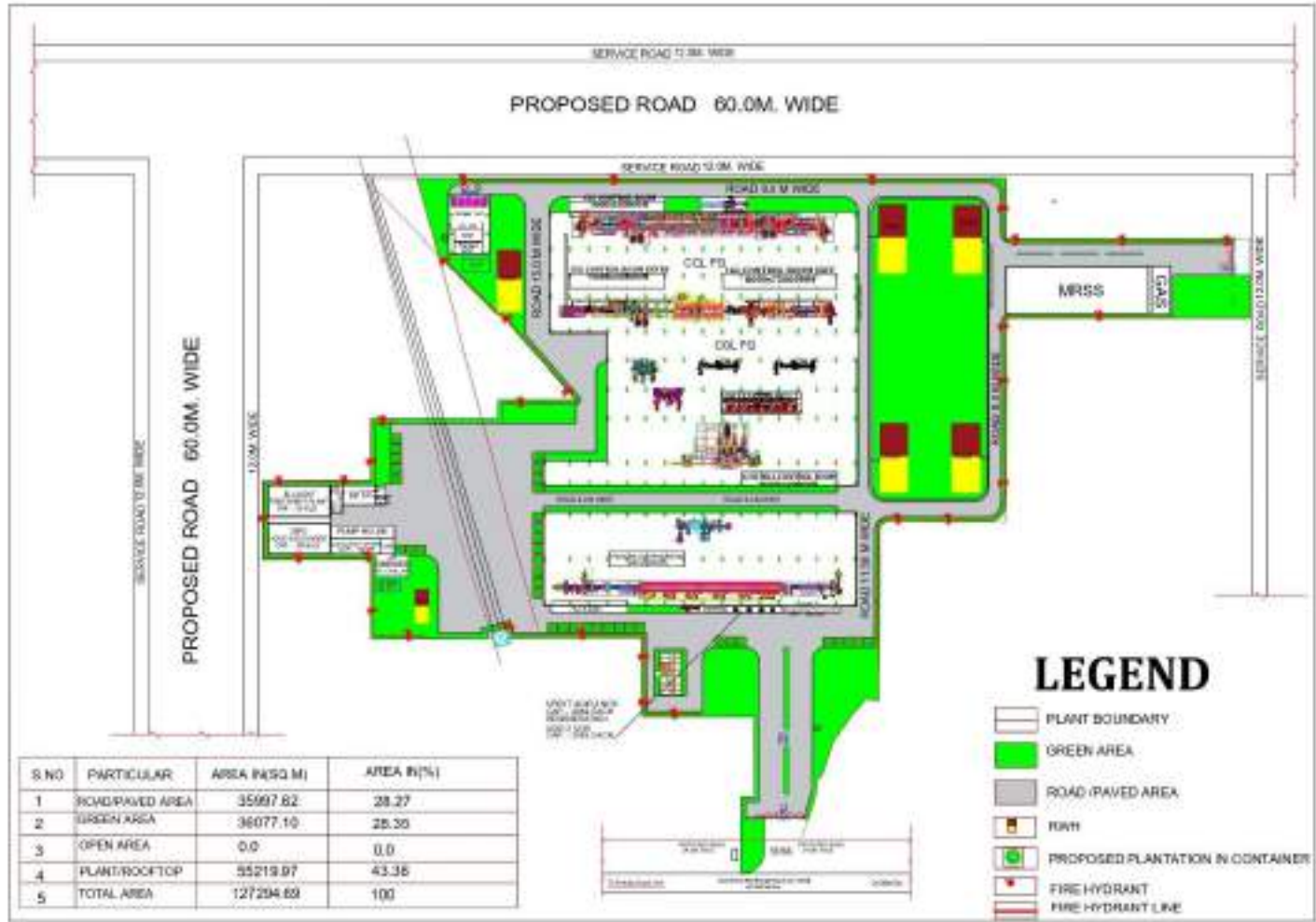


Figure 2.5: Engineering Layout of the Project Site



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

21

PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 2  
PROJECT DESCRIPTION**2.3 DETAILS OF FOREST AND WILDLIFE**

S. No.	Particular	Remarks
a	<u>Status of Forest Clearance for the use of forest land shall be submitted</u>	No forest land is involved in the proposed project. Hence, it is not applicable.
b	<u>Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&amp;CC Office Memorandum dated 8/8/2019.</u>	Not Applicable as there is no national park or wildlife sanctuary are present within the 10km radius from the project site.
c	<u>The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.</u>	Not Applicable as there is No National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas located within 10 km radius of the proposed project site.
d	<u>Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.</u>	One schedule-I species are found in the buffer zone of the project site namely: <b>Peafowl (<i>Pavo cristatus</i>)</b>

**2.5 SALIENT FEATURES OF THE PROJECT****2.5.1 PRODUCTION DETAILS**

Table 2.6: Production details

S. No.	Name	Proposed Capacity (TPA)	Total Capacity (TPA)
a)	HRPO coils/sheets	120000	120000
b)	Cold rolled full hard coils	60000	60000
c)	CRCA coils/sheets	90000	90000
d)	Galvanized/galvalume coils	240000	240000
e)	Colour coated coils	120000	120000



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

22

PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

f)	CDW	30000	30000
g)	HR tube	30000	30000
h)	CR tube	60000	60000
i)	Stamping	30000	30000
<b>Total capacity</b>		<b>780,000</b>	

## 2.5.2 SIZE OR MAGNITUDE OF OPERATION

The size and magnitude of the proposed cold rolling mill is as given below: -

**Table 2.7: Size or Magnitude**

S. No.	Particulars	Details			
1.	Project Type	Greenfield			
2.	Area (Sq.m)	127294.69 Sq.m (No additional land acquired).			
3.	Power and fuel Demand	<b>Phase</b>	<b>Demand</b>	<b>Source</b>	
		<b>Electricity</b>			
		Power demand	15 MVA	DHBVN (Nearest GSS - 4.18 km SSE)	
		<b>Fuel (for machinery operations)-</b>			
		<b>Fuel</b>	<b>Demand</b>	<b>Source</b>	
		CNG	4441.8 TPA	GAIL (India) Limited (Through pipeline)	
<b>Source:</b> Power Demand is being met from AVVNL Two DG set of 1000 KVA will use in the emergency situation/ power failure.					
4.	Water requirement	Total one time Water demand: 750 KLD Proposed-Fresh water Demand-450 KLD (Industry: 382.5, Domestic: 67.5 KLD and) Recycled Water -300 KLD			
5.	Manpower	Construction Phase 350 Nos (direct-50, indirect/contractual-300); Operation Phase (direct-300, indirect/contractual-1700) - 2000 Nos.			

## 2.5.2 BRIEF ON PRESENT STATUS OF THE PROJECT

The Standard ToR (Terms of Reference) is issued by SEIAA, Haryana vide letter no. File No. SEIAA/HR/2023/426 dated 27.10.2023





### 2.5.3 RAW MATERIALS REQUIRED ALONG WITH ESTIMATED QUANTITY, LIKELY SOURCE AND MODE OF TRANSPORTATION OF RAW MATERIALS

Following raw materials are required for the proposed project.

**Table 2.8(a): Details of Raw Material Procured**

S. No.	Raw Material	Proposed	Total	Source	Mode of transport	Remarks
		Consumption				
1.	HR Coil	8,40,000TPA	8,40,000TPA	from Tata steel Limited, SAIL, Jindal Steel and Power Limited, Jindal Steel Limited	Transport ed by Trucks	Local Market

**Table 2.8(b): Details of Chemicals**

S.No.	Chemical	Capacity
1.	Lime	20 TPD
2.	Caustic Soda	200 Lt/day

### 2.5.4 MANUFACTURING PROCESS DESCRIPTION

#### 1. CRCA Strips/CRCA Tubes process:

**Input Material:** Input material Hr Coil of wider size which is Procured From M/S Tata Steel and JSW is slitted in Sizes of Lesser widths as per mill rolling capabilities related to width.

The Production process involves following steps.

- HR Slitter:** HR Coils are sent to HR slitter. The Slitting Operations are carried out as per Customer Requirements Like 1500x2mm is Slitted in Sizes 750+750mm. Similar is the Case with other wider widths also. In this process only Side trimmings get generated. This Scrap goes for melting.
- Pickling Line:** Process is used for removing oxide scale from the raw material by using Hydrochloric Acid of 12-16% Strength. Sheet is further washed with water. This results in



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

invisible loss as Iron oxide of 0.5-0.6% which cannot be recovered.

- c) **4-HI Rolling Mill:** After Pickling the Coil is rolled in required thicknesses as per customer requirements.
- d) **Rewinding Line:** After rolling the Coils are further rewinded to reduce the tension to avoid Stickiness in Annealing. Here No Scrap gets generated.
- e) **Annealing:** After Rolling and Rewinding material gets hard which is process for Softened during Annealing and Annealing further Imparts the mechanical properties as per customer requirements. The Coils are annealed in Furnaces in closed cover. The temperature is maintained for 650°C for 56hrs from heating to cooling in closed protective cover and closed furnace. These are the CNG Fired furnace and the exhaust gases also used through Recuperator for hot air which is used in furnaces.
- f) **Skin Pass Mill:** After Annealing Skin Pass is done for shape improvement and further working of the material. No Scrap Gets Generated.
- g) **CR Slitter:** After Skin Passing the material is Slitted in required widths as per customer requirements. Here side trimmings get generated which sell it in market.
- h) **Cut to Length:** After Slitting the Strip is cut to lengths in different Sizes as per customer requirements. No Scrap Gets Generated.
- i) **Packing:** After Slitting and cut to length the material is packed with Stretch film and Hession. No Scrap Gets Generated.
- j) **Dispatch:** After packing the material is Stacked in Stockyard for further dispatch to designated customers.



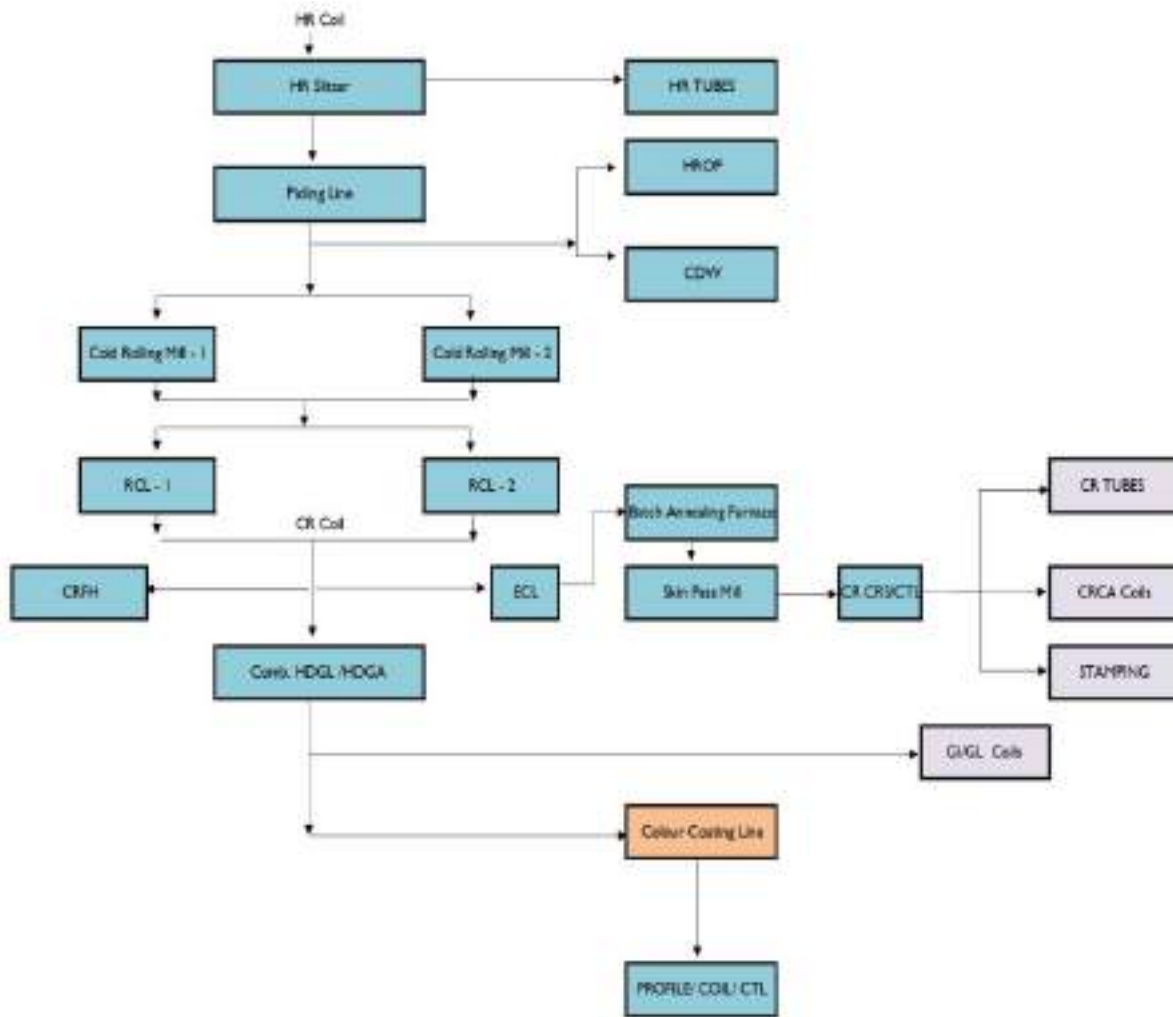


Figure-2: Process Flow Diagram





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## 2.5.5 MATERIAL BALANCE & ENERGY BALANCE

The material balance is mentioned below:

**Table 2.9: Materials Balance for HR Coil**

DESCRIPTION	INPUT (TPA)	OUTPUT (TPA)	REMARKS
HR Coil	840000	--	The steel scrap is being sold in the open market
HRPO coils/sheets	--	120000	
Cold rolled full hard coils	--	60000	
CRCA coils/sheets	---	90000	
Galvanized/galvalume coils	--	240000	
Colour coated coils	--	120000	
CDW	--	30000	
HR tube	--	30000	
CR tube	--	60000	
Stamping	--	30000	
Scrap	--	60000	
<b>Total</b>	<b>840000</b>	<b>84,000</b>	

## 2.6 POWER, WATER SUPPLY AND OTHER INFRASTRUCTURE REQUIREMENTS

### 2.6.1 POWER

The existing power demand is as given below: -

**Table 2.10: Power Demand**

Phase	Demand	Source
<b>Electricity</b>		
Power demand	15 MVA	DHBVN (Nearest GSS - 4.18 km SSE)
<i>Two DG set of 1000 KVA will use in the emergency situation/ power failure.</i>		

### 2.6.2 FUEL REQUIREMENT

The proposed fuel requirement is given below:-

**Table 2.11: Fuel Consumption**

Phase	Demand	Source
<b>Fuel (for machinery operations)-</b>		
<b>Fuel</b>	<b>Demand</b>	<b>Source</b>
CNG	4441.8 TPA	GAIL (India) Limited (Through pipeline)

### 2.6.3 WATER DEMAND

Total one-time water demand is 750KLD. Out of which 450KLD fresh water is supplied from Ground Water and 300 KLD of water will be recycled. 37.7KLD STP treated water will be reuse for green area.

**Table 2.12: Water Demand**

S. No.	Particulars	Fresh	Recycled	Total Water
--------	-------------	-------	----------	-------------



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL/2024

27

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

		(KLD)	(KLD)	Demand (KLD)
1.	Industrial	382.5	270	652.5
2.	Domestic	67.5	30	97.5
3.	Plantation and others	---	37.5*(STP treated waste water will be used in plantation)	37.5*(STP treated waste water will be used in plantation)
<b>Total</b>		450	300	<b>750</b>
<b>Source: - Ground water (*-Reuse)</b>				
<b>Permission for abstraction of ground water from CGWA will be applied soon.</b>				

**\*Source:** - Water will be sourced from ground water.

**CGWA Application:** The water demand will be met from ground water supply. Permission from CGWA will be obtained.



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

28

108

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

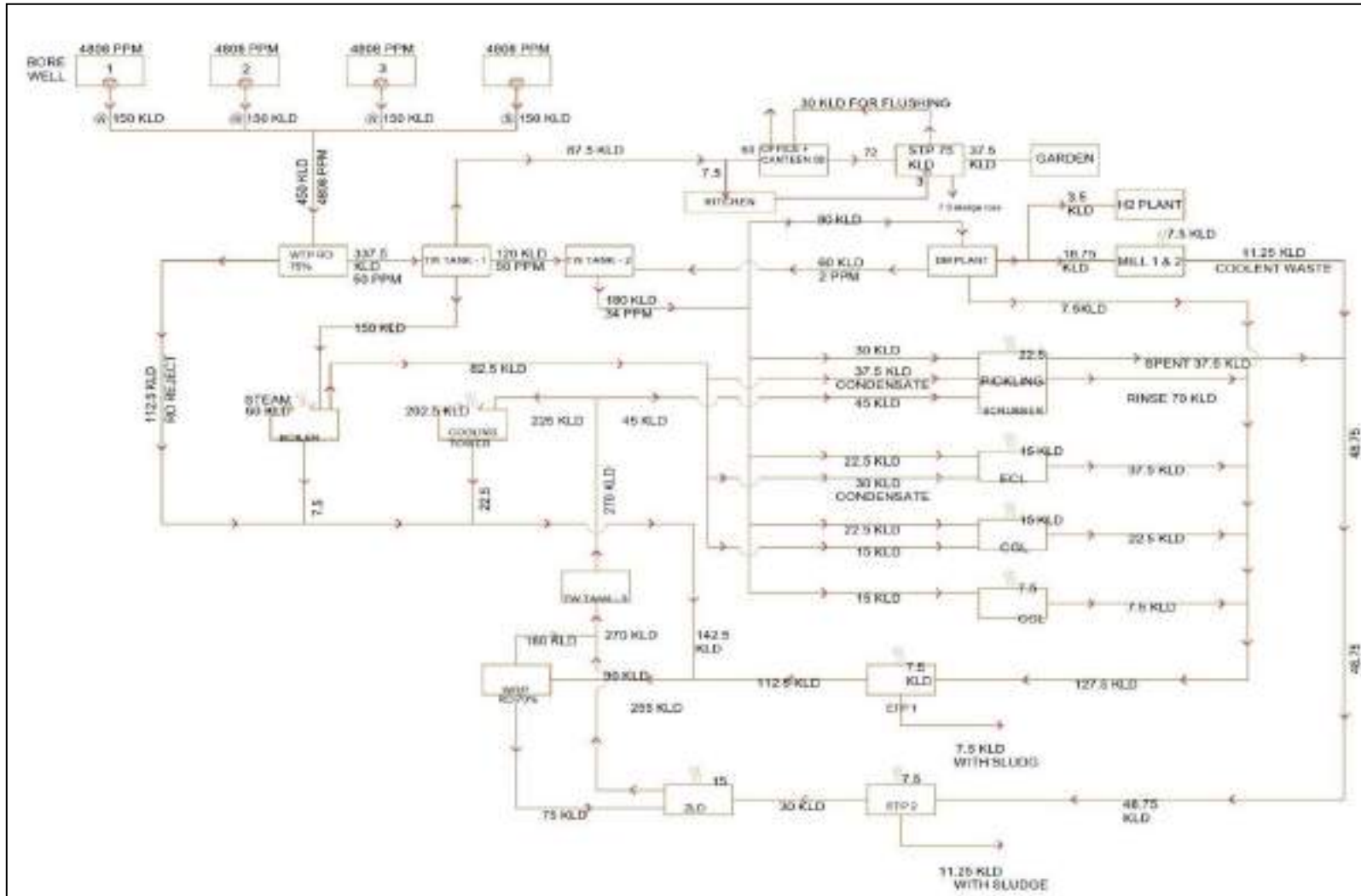


Figure: Proposed Water balance flow diagram



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

29

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

#### 2.6.4 MANPOWER REQUIREMENTS

The proposed employment is approx. 2000 people. Following staff & workers are employed: -

**Table 2.13: Manpower Details**

Category	Proposed	Total
Permanent staff	300	300
Skilled worker	650	650
Semi-skilled workers	350	350
Unskilled workers	700	700
<b>Total</b>	<b>2000</b>	<b>2000</b>

#### 2.6.5 DETAILS OF EMISSION, EFFLUENTS, HAZARDOUS WASTE GENERATION AND THEIR MANAGEMENT DURING CONSTRUCTION AS WELL AS OPERATION PHASE

Construction phase is envisaged as it is a proposed project. Emission during the operation phase is given below in chapter 10 of EIA/EMP report

#### 2.7 PROPOSED SCHEDULE FOR APPROVAL AND IMPLEMENTATION

**Project Cost :-** Proposed – 800 Cr; Total-Rs. 800 Cr.

**Time of Completion:** - Within year after obtaining the EC

#### **2.8 Ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source. Permission will be obtain from CGWA for ground water withdrawal**

Proposed project will withdraw the ground water for the industrial and domestic purpose. CGWA application will be applied soon. To reduce the stress on the ground water, the unit will implement the following actions within the plant site which are as follows: -

S. No.	Measures taken	Action Plan
1.	Roof top water harvesting and rain water harvesting structure will be installed and details are given in chapter 4 of EIA/EMP report.	Rain water storage tank is proposed to be installed within the plant site.
2.	The unit has proposed STP (SBR technology) of 100 KLD for domestic treatment	Treated water will be reused in plantation. No fresh water will be used in plantation purposes.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## 2.9 WASTE GENERATION DETAILS

### 2.9.1 Solid waste

Particulars	Waste Quantity in TPD			Treatment/ disposal
	Type of Waste	proposed	Total	
Sludge TPA	STP Sludge	0.5	0.5	Used as manure for plantation
Municipal Solid Waste (@0.125 Kg/ day	Biodegradable	0.25	0.25	Sent to Nearest Municipal site
Scrap from Process	Scrap	181.81	181.81	Sold to Local market

### 2.9.2 Hazardous waste

The Hazardous waste is being/will be generated is as follows;

Hazardous Waste Quantity in TPA					Treatment/ disposal
Type of Waste	Schedule	Code	Proposed	Total	
Chemical Sludge from waste water treatment (TPA)	1	35.3	16000	16000	Send to registered recyclers
Used Oil or Spent Oil	1	5.1	200	200	Send to registered recyclers
Iron oxide	1	5.2	4000	4000	Send to registered recyclers

*The details are elaborated in Chapter -4 of EIA/ EMP report.*

## 2.10 EQUIPMENT DETAILS

### 2.10.1 Equipment/Machinery Details for Proposed Plant

Table 2.15: Proposed Equipment detail

EQUIPMENTS	QUANTITY
CRM EQUIPMENTS	12
GP-GL EQUIPMENTS	12
CRCA EQUIPMENTS	20
COLOUR COATING EQUIPMENTS	7
MATERIAL HANDLING EQUIPMENTS	84
UTILITY EQUIPMENTS	41
WORK SHOP EQUIPMENTS	3
ELECTRICAL ITEMS	27
LABORATORY INSTRUMENTS	15
TUBE EQUIPMENTS	15
STAMPING EQUIPMENTS	24

### 2.11 Details of Environmental Clearance

S. No.	Particular	Remarks
1.	<b><u>Copy of all the Environmental Clearance(s) including amendments there to obtain for the project from MoEF/ SEIAA shall be attached as Annexure. A certified copy of the latest</u></b>	Not applicable as this is greenfield project.



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

31

109

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 2 PROJECT DESCRIPTION
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	<b><u>Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in all the existing Environmental Clearances including amendments shall be provided. In addition, status of compliance of Consent to operate for the ongoing/ existing operation of the project from SPCB shall be attached with the EIA-EMP Report.</u></b>	
2.	<b><u>In case the existing project has not obtained Environmental Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/ or EIA Notification 2006 shall be provided. Copies of Consent to Establish/ No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consent from the SPCB shall be submitted.</u></b>	Not applicable as this is greenfield project.

## 2.12 ASSESSMENT OF NEW & UNTESTED TECHNOLOGY FOR THE RISK OF TECHNOLOGICAL FAILURE

No new technology & untested technology is being adopted for the proposed project of cold rolling mill complex. Hence no risk of technological failure is envisaged.

\*\*\*\*\*



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

32

106

# CHAPTER-3

## DESCRIPTION OF ENVIRONMENT

DRAFT FOR PH



**CHAPTER - 3****INDEX**

<b>3.0</b>	<b>INTRODUCTION .....</b>	<b>36</b>
<b>3.1</b>	<b>METHODS OF MONITORING AND ANALYSIS&amp; SELECTION OF MONITORING STATIONS.. .....</b>	<b>36</b>
<b>3.1.1</b>	<b>CRITERIA FOR SAMPLING STATIONS .....</b>	<b>36</b>
<b>3.2</b>	<b>COLLECTION OF BASELINE DATA .....</b>	<b>37</b>
<b>3.3</b>	<b>LAND ENVIRONMENT .....</b>	<b>37</b>
<b>3.3.1</b>	<b>Land Use of Study Area.....</b>	<b>37</b>
<b>3.4.6</b>	<b>SOIL ENVIRONMENT.....</b>	<b>49</b>
<b>3.5</b>	<b>WATER ENVIRONMENT .....</b>	<b>53</b>
<b>3.5.1</b>	<b>GROUND WATER ANALYSIS.....</b>	<b>53</b>
<b>3.5.2</b>	<b>INTERPRETATION OF RESULT.....</b>	<b>57</b>
<b>3.5.2.1</b>	<b>Ground Water .....</b>	<b>57</b>
<b>3.5.2.2</b>	<b>Surface Water .....</b>	<b>58</b>
<b>3.6</b>	<b>AIR ENVIRONMENT.....</b>	<b>59</b>
<b>3.6.1</b>	<b>MICRO-METEOROLOGICAL DATA.....</b>	<b>59</b>
<b>3.6.2</b>	<b>WIND ROSE DIAGRAM.....</b>	<b>61</b>
<b>3.6.3</b>	<b>AMBIENT AIR QUALITY DATA.....</b>	<b>62</b>
<b>3.6.4</b>	<b>INTERPRETATION OF RESULTS.....</b>	<b>64</b>
<b>3.7</b>	<b>NOISE ENVIRONMENT .....</b>	<b>65</b>
<b>3.7.1</b>	<b>AMBIENT NOISE LEVEL DATA .....</b>	<b>65</b>
<b>3.7.2</b>	<b>INTERPRETATION OF RESULT .....</b>	<b>67</b>
<b>3.8</b>	<b>BIOLOGICAL ENVIRONMENT.....</b>	<b>68</b>
<b>3.8.1</b>	<b>METHODOLOGY.....</b>	<b>Error! Bookmark not defined.</b>
<b>3.8.2</b>	<b>STUDY OF FAUNA.....</b>	<b>Error! Bookmark not defined.</b>
<b>3.8.2.2</b>	<b>Herpetofauna .....</b>	<b>Error! Bookmark not defined.</b>
<b>3.8.2.3</b>	<b>Mammals .....</b>	<b>Error! Bookmark not defined.</b>
<b>3.8.3</b>	<b>FLORAL PROFILE THE CORE AND BUFFER ZONE .....</b>	<b>Error! Bookmark not defined.</b>
<b>3.8.4</b>	<b>FAUNAL PROFILE THE CORE AND BUFFER ZONE.....</b>	<b>Error! Bookmark not defined.</b>





**3.10 SOCIO-ECONOMIC ENVIRONMENT.....68**

**3.10.1 OBJECTIVES..... 83**

**3.10.2 METHODOLOGY.....83**

**3.10.3.1 Population in Core Zone .....84**

**3.10.3.2 Population in Buffer Zone.....84**

**3.10.3.3 Gender Distribution..... 84**

**3.10.3.4 Literacy Profile..... 84**

**3.10.3.5 Occupation Profile.....84**

**3.10.4 SOCIAL INFRASTRUCTURE .....89**

**3.10.5 Socio-economic conditions of the study region (Primary data)..... 90**

**3.10.6 SUMMARY..... 93**

\*\*\*\*\*

DRAFT FOR PH



## CHAPTER- 3

### DESCRIPTION OF ENVIRONMENT

#### 3.0 INTRODUCTION

The anthropogenic activities related to industrial sector cause impacts on environmental components in and around the project site. However, the intensity of environmental impacts vary from project to projects, depending upon several factors like; Physical, Chemical, & other involved in the project like processing capacity (scale / size of the project), type and extent of pollution control measures, project location surrounding geomorphology etc. To assess environmental impacts from the existing project (specific), it is essential to monitor the environmental quality prevailing in the surrounding area prior to implementation of the project. The environmental status (baseline status) within the study area is used for prediction of anticipated environmental impact assessment study. The impacts from an existing industrial project on its surrounding environment are due to the nature of pollutants, their quantities discharged to the environment, existing environmental quality, assimilative capacity of the surrounding environment and topography.

#### 3.1 METHODS OF MONITORING AND ANALYSIS& SELECTION OF MONITORING STATIONS

##### 3.1.1 CRITERIA FOR SAMPLING STATIONS

The criteria for selection of sampling stations were based on the impact zone-4-5 km from the plant site. The baseline data was collected as per CPCB guidelines during the period of 1<sup>st</sup> march to 31<sup>st</sup> may 2023.

The following criteria were adopted while selecting the monitoring locations: -

- One location on the upwind depending upon the wind profile/ pattern.
- Two locations on the downwind side depending upon wind pattern (predominant directions).
- One location covering the sensitive areas within the vicinity.
- One location covering the transportation convergences route.
- One location covering the major habitation.
- One location on the downwind direction where the max GLC's are falling.

The monitoring station selected is as described under:-

**Table 3.1: List of Monitoring Stations**



Sampling Location	Distance (Km)	Direction	Components
Project Site	--	--	Air, Ground Water, Noise, Soil
Devli	1.42	ESE	Air, Ground Water, Noise, Soil
Asawati	1.80	NNE	Air, Ground Water, Noise, Soil
Pyala	3.56	N	Air, Ground Water, Noise, Soil
Dundsa	2.34	NNW	Air, Ground Water, Noise, Soil
Gadpuri	3.31	NW	Air, Ground Water, Noise, Soil
Pirthala	1.50	W	Air, Ground Water, Noise, Soil
Baghaura	2.56	S	Air, Ground Water, Noise, Soil
Pahladpur Distributary	1.14	NNE	Surface water
Agra Canal	4.42	NE	Surface water
Pirthala Pond	1.50	W	Surface water
NH-2	1.08	WSW	Traffic

Baseline data generation was carried out by M/s Alkom Synergy Pvt. Ltd., Jaipur accredited & approved by MoEF&CC & NABL. The NABL certificate is enclosed as **Annexure-VII(i)**

### 3.2 COLLECTION OF BASELINE DATA

Environmental Baseline Monitoring data was collected in relation to existing project for: -

1. Land Environment
2. Water Environment
3. Air Environment
4. Noise Environment
5. Biological Environment
6. Socio-Economic Environment

### 3.3 LAND ENVIRONMENT

Objective of the study is to provide a baseline status of the study area covering 10Km radius around the existing project site so that temporal changes due to the existing project activities on the surroundings can be assessed in future.

#### 3.3.1 Land Use of Study Area

##### LAND ENVIRONMENT

Since, a major part of 10km study area comprises of Forest Area, Agricultural Area, and Waste Land thus study on land environment of ecosystem play an imperative role in identifying susceptible issues and taking appropriate action to uphold ecological equilibrium in the region. The main objective of this section is to provide a baseline status of the study area covering 10 km radius around the project site so that temporal changes due to the industrial activities on the surroundings can be assessed in future.



**Source of information:**

The data in this work is collected from the following sources: -

1. Topographic data - Survey of India Toposheet.
2. Remote Sensing Data - LISS IV Data of Resource sat R2A - NRSC, Hyderabad.
3. Ground Truthing of the area

Since, a major part of 10km study area comprises of Forest Area, Agricultural Area, and Waste Land thus study on land environment of ecosystem play an imperative role in identifying susceptible issues and taking appropriate action to uphold ecological equilibrium in the region. The main objective of this section is to provide a baseline status of the study area covering 10 km radius around the project site so that temporal changes due to the industrial activities on the surroundings can be assessed in future.

**Methodology**

The LISS IV of Dec 2023 was procured for interpretation and classification of Core and 10 Km Buffer zone of the project. Both the data were fused to attain high quality and used for interpretation of data in conjunction with secondary/collateral data. The methodology followed for extraction of information from satellite data is especially at standard visual interpretation based on tone, texture, shape, size and colour.

Salient features of the adopted methodology are given below:

1. Acquisition of satellite data
2. Preparation of base map from Survey of India topo sheets
3. Data analysis using visual interpretation techniques
4. Ground truth studies or field checks using GPS
5. Finalization of the map
6. Digitization using head up vectorisation method
7. Topology construction in GIS
8. Area calculation for statistics generation
9. Masking

**Data Collection & Masking**

The IRS LISS IV of Dec 2023 satellite imagery having 5.8 m spatial resolution satellite data of Cell size 10 m is collected in different band width i.e. Blue, Green, and Red& NIR. FCC has been prepared using Green (Band 2) (0.52-0.59 $\mu$ ), Red (Band 3) (0.62-0.69 $\mu$ ) and near Infrared (NIR) (Band 4) (0.77-0.89 $\mu$ ) with the combating of 4-3-2. After that masking is



done to understand and analyze the land use/land cover pattern of the Study area for the 10 Km Buffer areas.

### **Digital Image Processing**

The digital image processing was performed on Sentinel Toolbox, Arc GIS/QGIS software system on high-configuration computer. This software package is a collection of image processing functions necessary for pre-processing, rectification, band combination, filtering, statistics, classification, etc.

### **Pre-field Interpretation of Satellite Data**

The False Colour Composite (FCC) of IRS Liss-IV satellite imagery having 5.8 m spatial resolution satellite data 1:50,000 scales have been used for pre-field interpretation work. Taking the help of Toposheet, geology, and geo-morphology and by using the image elements, the features were identified and the boundaries were delineated. Each feature was identified on image by the image elements like tone, texture, colour, shape, size, pattern and association. A tentative legend in terms of land cover and land use was formulated. The sample area for field check is selected covering all the physiographic, land use/land cover feature cum image characteristics.

### **Ground Truth Collection**

The Survey of India Toposheet data were downloaded for field verification and a systematic traverse were undertaken using existing road network to study Land Use Pattern of the area, covering as many representative sample areas as possible to observe the broad land use features and to adjust the sample areas according to field conditions. Detail field observations and investigations were carried out and noted the land use features and plotted on the Satellite image Data.

### **Post Field Work for Land Use/Land Cover Classification:**

The base maps of the study area were prepared, with the help of Survey of India Toposheet on 1:50,000 scale. Field information and the final details were transferred onto the base maps. The final interpreted and classified map was then categorically differentiated with standard colour coding and described features with standard symbols. All the classes were identified and marked by the standard legend on the map. The following Land Cover classes were derived and classified as under:



- ✓ Built-up, Rural
- ✓ Built-up, Industries
- ✓ Plantation
- ✓ Crop land
- ✓ Fallow land
- ✓ Water Body
- ✓ Mining Area

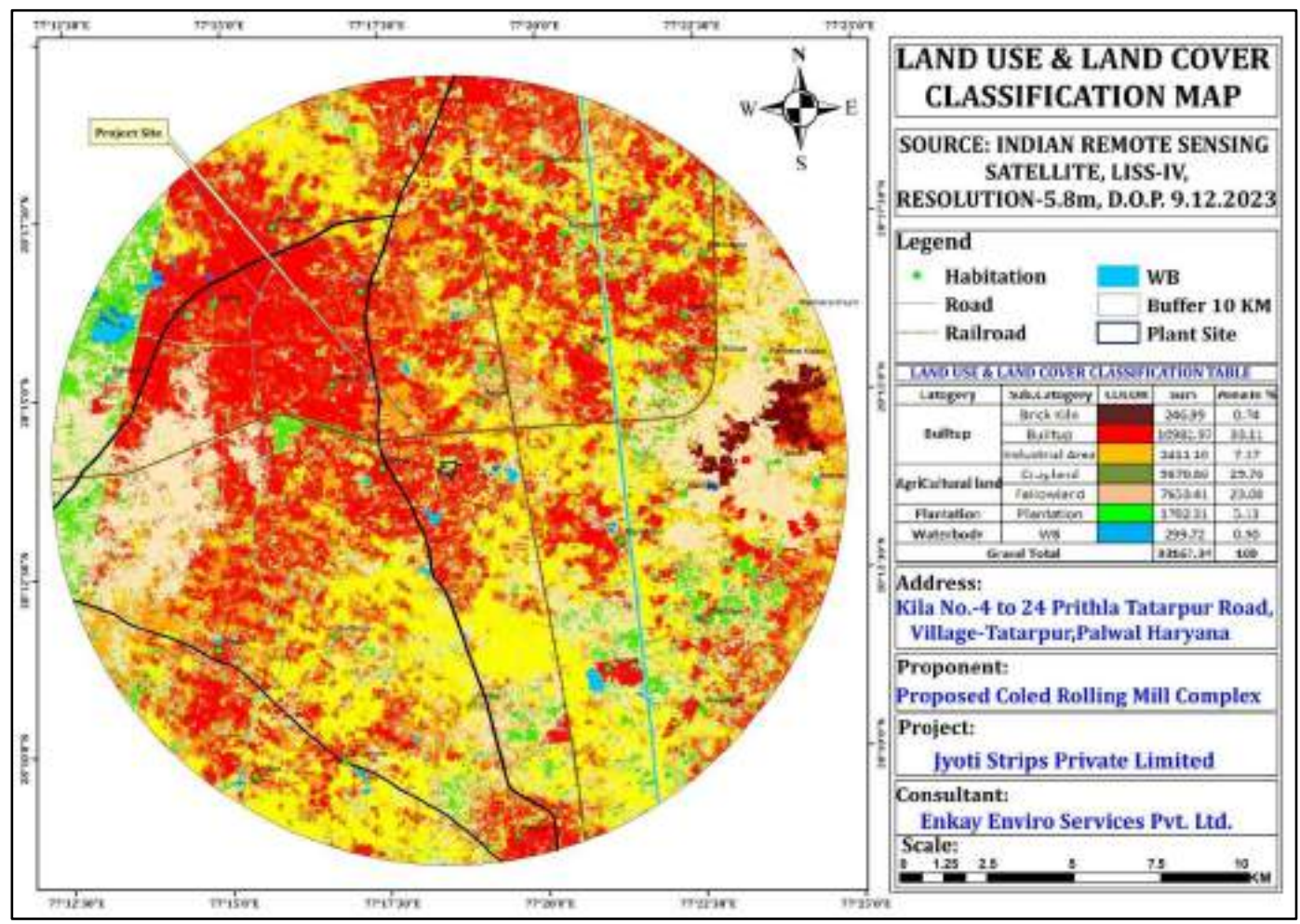


Figure: 3.1 Land Use & Land Cover Map of 10km radius from Satellite Image



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER - 3

DESCRIPTION OF ENVIRONMENT

**Land Use and Land Cover (LULC) for 10 km radius from boundary:**

The land use will be changed slightly as the proposed project is coming within the 10 km buffer area. Classification scheme adopted for the preparation of land use/ land cover maps on 1:50,000 scales. Land use/ Land cover classification standardized by NRSC/ ISRO. Total Seven major land use/land cover classes were demarcated in the study area. A thematic map of 1:50,000 scales were generated incorporating these classified categories considering the area of the project. The LULC map of the study area is shown in **Figure 3.3**

**The LU/LC Class Index to modify in both the maps as per below table:****Table: 3.2 LU/LC Classes and their Coverage Area in hectares:**

Catogery	Sub.Catogery	Sum	Area In %
Builtup	Brick Kiln	246.99	0.74
	Builtup	10982.97	33.11
	Industrial Area	2411.10	7.27
Agricultural land	Cropland	9870.86	29.76
	Fallowland	7653.41	23.08
Plantation	Plantation	1702.31	5.13
Waterbody	WB	299.72	0.90
<b>Grand Total</b>		<b>33167.34</b>	<b>100</b>

**Land Use and Land Cover (LULC) of project site:**

The land use will be changed slightly as the project is a green field after the construction land is duly converted for industrial purpose. Total land area is **127294.69Sq.m.**

The land use pattern is given below:

**Table: 3.3 LU/LC Classes and their Coverage Area in hectares:**

S. No.	Land Use	Area (Sq.m)	Percentage (%)
		Proposed Area	
1.	Plant Area	55219.97	43.38
2.	Paved Area (Road, Corridor, )	35,997.62	28.27
3.	Green Area	36,077.10	28.35
4.	Open area	0.0	0.0
	<b>Total</b>	<b>127294.69</b>	<b>100</b>

*The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.*



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 3 DESCRIPTION OF ENVIRONMENT
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

### 3.3.2 TOPOGRAPHY/DEM

The major physiographic unit of the area is comprises almost flat plains traversed by one ridge running N-S to NNE-SSW direction, divides the alluvium into two parts. Total geographical area is 1364.55 sq.km which is bounded on western side Mewet district, Eastern side by U.P. state and northern side by Faridabad district .There were two main canals Agra canal and Gurgaon canal which passes through western and central part from north to south. In the northern part Budia nala is flowing from east to west and discharges its rainy water in river Yamuna. The Gaunchi main drain passes through north south direction of the district running in between Agra canal and Gurgaon canal.

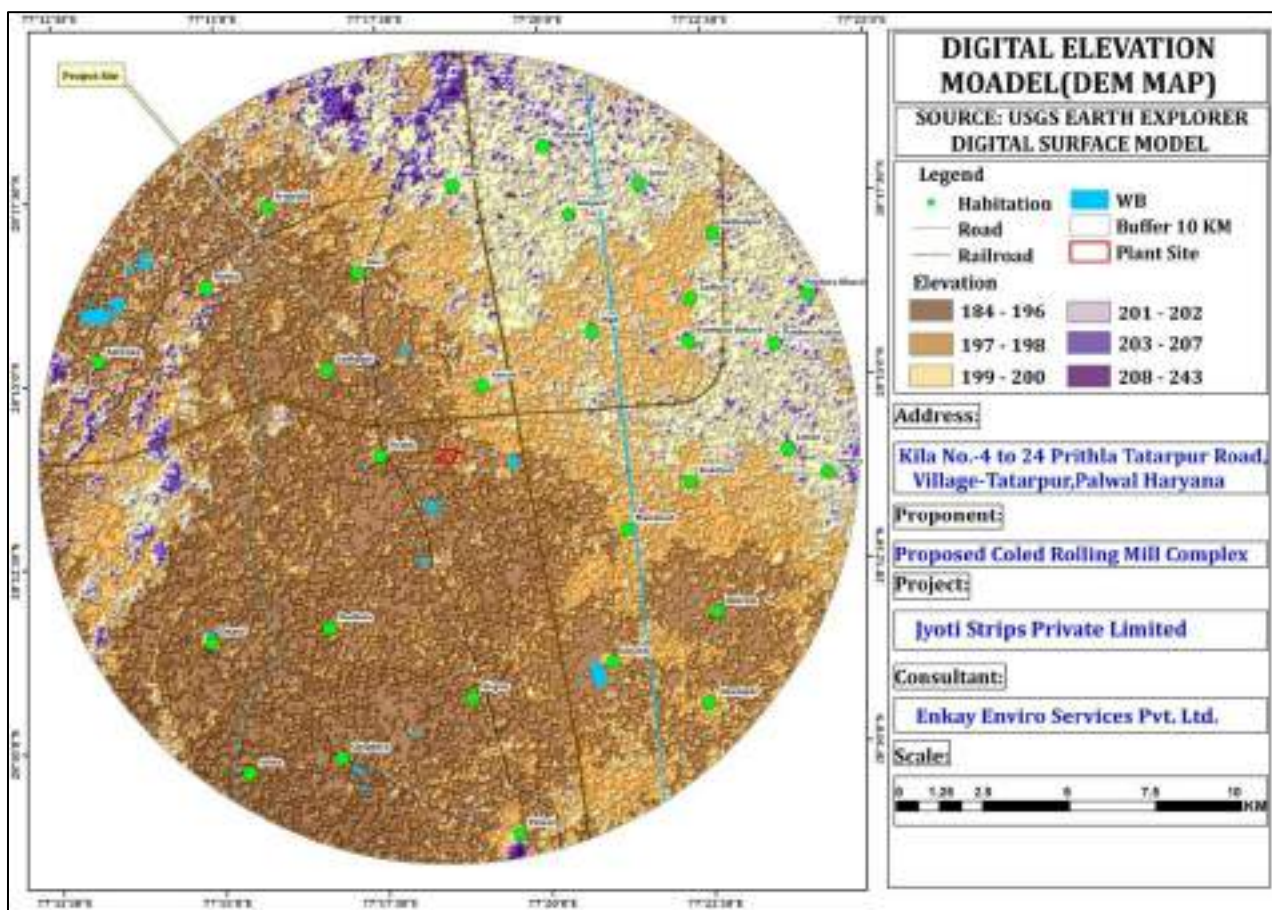


Figure. 3.2: DEM Map of 10 km radius

#### Study Area Topography/DEM:

Topographically, the lease area comprises of older alluvial plain. The highest and lowest elevation of the study area ranges from 184 mRL to 243 mRL.

### 3.3.3 Drainage





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 3 DESCRIPTION OF ENVIRONMENT
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

**Drainage System of Regional Area:**

The district is occupied by Indo-Gangetic alluvial plain of Quaternary age, and falls in Yamuna sub-basin of Ganga basin. The major river is Yamuna which is a perennial river.

**Study Area Drainage:**

The buffer area of 10 km radius comprises Agra canal which was at the distance of 4.16 km from the project area. The drainage of the area form the dendritic pattern of stream order of 4-9 in which 9 is the main stream order , which flow from NE to SW direction of the project area which shown in fig.3.6

**Proposed Plant Site Drainage:** In the project site, there are no stream fl

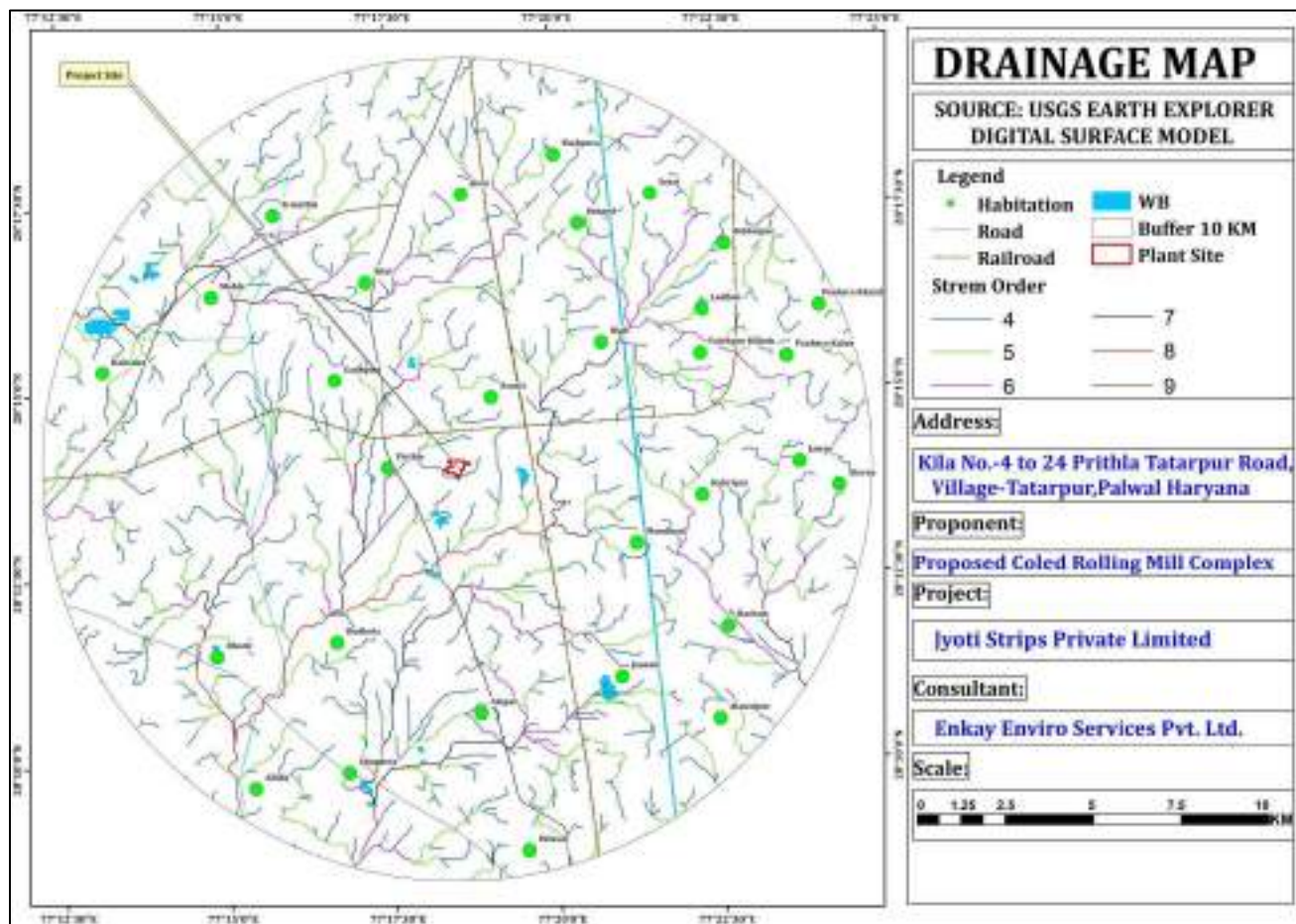


Fig. 3.3: Drainage Map of 10 km radius

**3.3.4 CLIMATE & RAINFALL**



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER - 3

DESCRIPTION OF ENVIRONMENT

**Climate:**

The climate of Palwal district can be classified as tropical steppe, semiarid and hot which is mainly characterized by the extreme dryness of the Air except during monsoon months. During three months of south west monsoon from last week of June to September, the moist air of oceanic penetrate into the district and causes high humidity, cloudiness and monsoon rainfall. The period from October to December constitutes post monsoon season. The cold weather season prevails from January to the beginning of March and followed by the hot weather or summer season which prevails up to the last week of June.

**Rainfall:**

The normal annual rainfall in Palwal district is about 542 mm spread over 27 days. The south west monsoon sets in the last week of June and withdraws towards the end of September and contributes about 85% of the annual rainfall. July and August are the wettest months 15% of the annual rainfall occurs during the non-monsoon months in the wake of thunder storms and western disturbances.

Normal Annual Rainfall : 542 mm

Normal Monsoon Rainfall : 460 mm

Temperature : 410 C (May &amp; June)

**3.3.5 SEISMICITY OF THE AREA**

Many parts of the Indian subcontinent have historically high seismicity. Seven catastrophic earthquakes of magnitude greater than 8 (Richter scale) have occurred in the western, northern and eastern parts of India and adjacent countries in the past 100 years.

Approx. 59 % of the land area of India is liable to seismic hazard damage. In India, seismic zones are divided into four zones i.e. V, IV, III and II. The Modified Mercalli (MM) Intensity, which measures the impact of the earthquakes on the surface of the earth, broadly associated with various zones is given in Table. The project site falls in Seismic zone-IV.

S. No.	Seismic Zone	Risk	Intensity on MMI scale
1	Zone - V	Very High Risk Zone	IX & above
2	Zone - IV	High Risk Zone	VIII
3	Zone - III	Moderate Risk Zone	VII
4	Zone - II	Low Risk Zone	VI & below

**3.3.5.1 GEOMORPHOLOGY**

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER - 3

DESCRIPTION OF ENVIRONMENT

The district is classified as tropical and brown soils, existing in major parts of the district. In Hathin block the organic content of soils ranging from 0.41 to 0.75 percent which is of medium category. In rest of the area organic contents is 0.2 to 0.4 percent and falls in Low category. The average conductivity of the soil is not more than 0.80  $\mu$ mhos /cm and the average pH of the soil is between 6.5 and 8.7. The area comprises almost flat plains traversed by one ridge running N-S to NNE-SSW direction, divides the alluvium into two parts. The major river is Yamuna which is a perennial river.

**Table3.5: Geomorphological divisions of the district**

Origin	Landform Unit	Occurrence
Fluvial	Alluvial Plain	Along rivers- Khari, Masi, Banas, Kothari
	Valley Fill	Small scattered patches in east & west
	Ravine	Along Berach River in south
Denudational	Pediment	Scattered in entire district, mainly in east & west
	Buried Pediment	Almost entire district except in east, southeast & north
	Intermontane Valley	Scattered in east & southeast
Aeolian	Sandy Plain	North
Structural	Plateau	Southeast
Hills	Linear Ridges	Near Jahazpur town
	Structural Hill	In northwest & eastern part of the district and Bhilwara town

**Study Area Geomorphological Features:**

Geomorphologically, the study area covered by the older alluvial plain and water bodies as shown in figure 3.5



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER - 3

DESCRIPTION OF ENVIRONMENT

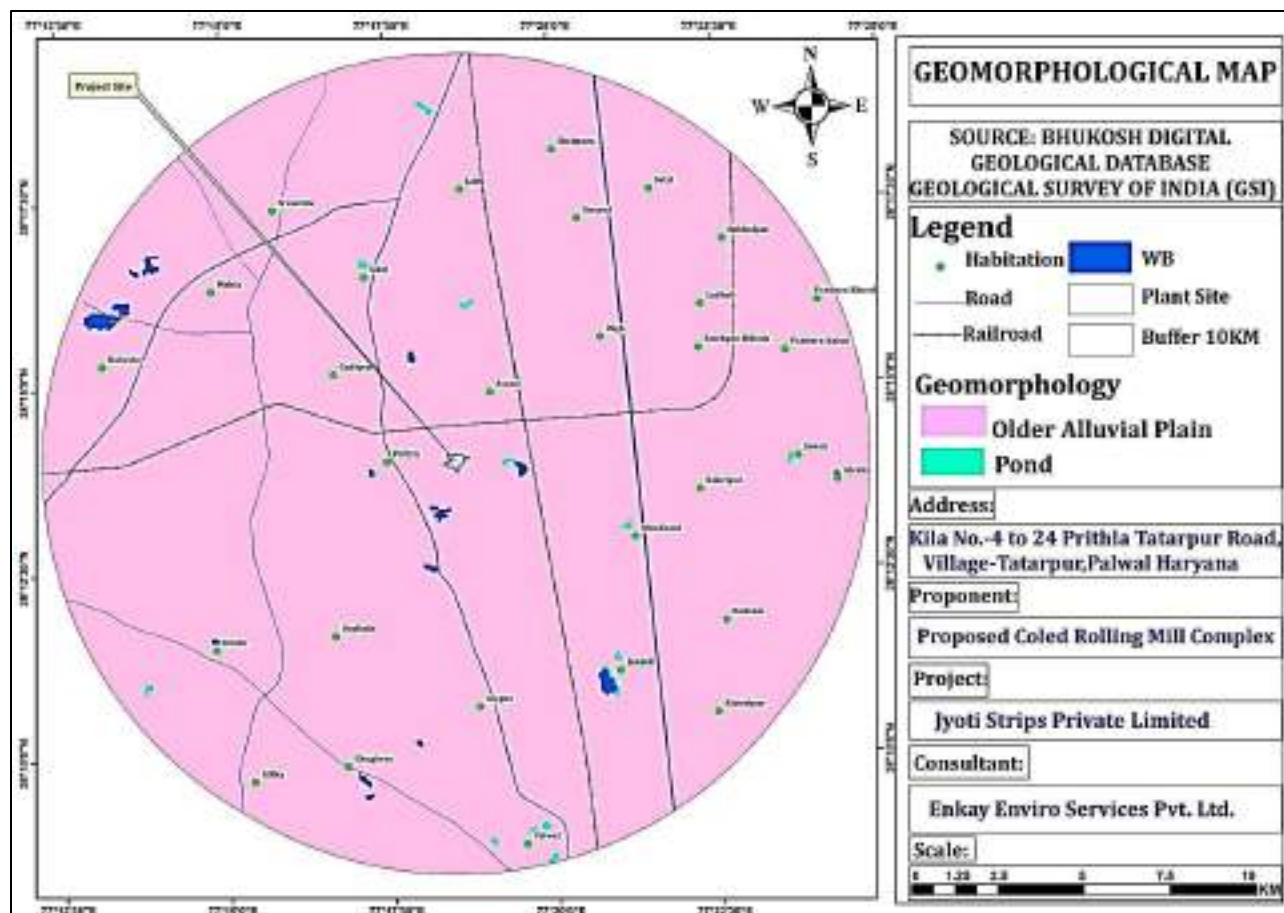


Fig. 3.6: Geomorphological Map of 10 km radius

### 3.3.7 GEOLOGY

#### A. REGIONAL GEOLOGY

The district is occupied by Indo-Gangetic alluvial plain of Quaternary age, and falls in Yamuna sub-basin of Ganga basin. The permeable granular zones comprising fine to medium grained sand and occasionally coarse sand and gravel. North western part of the district occupies the quartzite formation. In alluvium, granular zones are evenly distributed in entire thickness which is negligible near the quartzite outcrops to over 350 m in the eastern parts near Yamuna River.

#### B. LOCAL GEOLOGY

Geologically, allotted area is belonging to Middle-Late Pleistocene and Holocene age. Oxidised silt-clay with kankar and micaceous sand and yellowish brown loose sand with or without



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR  
APRIL'2024

46

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 3 DESCRIPTION OF ENVIRONMENT
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

kankar are the major litho unit observed in the allotted area. The Stratigraphic sequence of the litho units present in the area are given in Table 3.7:-

AGE	GROUP NAME	FORMATION	MEMBER	LITHOLOGIC
MIDDLE - LATE PLEISTOCENE	OLDER ALLUVIUM	VARANASI=AMBALA=LUDHIANA	CLAYEY FACIES	OXIDISED SILT-CLAY WITH KANKAR AND MICACEOUS SAND
HOLOCENE	NEWER ALLUVIUM	LOHARU / AEOLIAN DEPOSIT		YELLOWISH BROWN LOOSE SAND WITH OR WITHOUT KANKAR

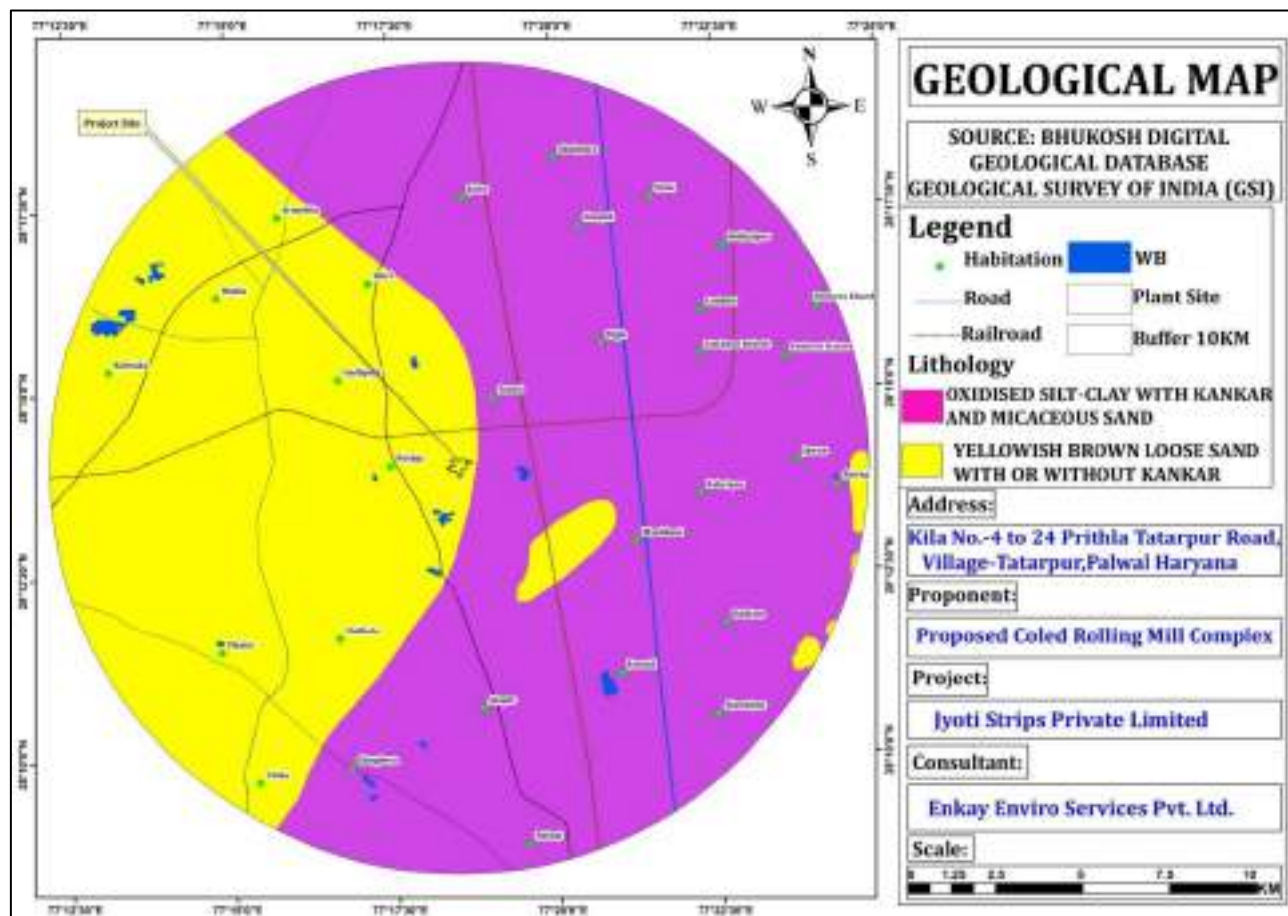


Fig. 3.7: Geological Map of 10 km radius



### C. HYDROGEOLOGY

#### **Aquifer Distribution and its characteristic**

Ground water occurs in alluvium and the underlying weathered/fractured quartzites. Alluvium comprises sands silt, Kankar and gravel. Which form the principal ground water bearing horizon. In Quartzite formation, occupying the north- western part of the district, ground water occurs in weathered and jointed fractured horizons. Weathering and fracturing has resulted in formation of semi-consolidated sand beds (BADARPUR SANDS) which form potential aquifer zones. This quartzite formation has not been explored for ground water occurrence. In alluvium, granular zones are evenly distributed in entire thickness which is negligible near the quartzite outcrops to over 350 m in the eastern parts near Yamuna River. The discharge of the wells ranges from 750 lpm to 900 lpm at a drawdown of 5.5 to 7.00m. The transmissivity 'T' value ranges between 55 to 200 m<sup>2</sup> /day was determined. Shallow tube wells for irrigation use are generally constructed up to a depth of 40 m. The discharge of these shallow tube wells range 360 -600 liters per minutes.

#### **AQUIFER MANAGEMENT PLAN:**

Due to pressure of population and improvement in the standard of living, the demand of fresh water for both agriculture and domestic use has substantially increased. As surface flow is available only for a limited period ground water withdrawal has sharply increased. The top layer of fresh ground water is also reducing every year. Artificial recharge serves as a means for restoring the depleted ground water storage, slow down the quality deterioration and put back into operation many groundwater abstraction structures.

#### **DEPTH TO WATER LEVEL:**

Central Ground Water Board periodically monitors the ground water regime through active National Hydrograph Network Stations (NHNS) stations four times a year i.e. in January, May (Pre monsoon), August and November (Post monsoon) including one time ground water sampling during May measurement. Depth to water level varies widely depending upon topography, drainage, bed rock, geology etc.

#### **Pre & Post monsoon Water level:**

Depth to water level in pre monsoon is ranges from 2 m bgl to 10.75 m bgl.

Depth to water level in post-monsoon is ranges from 2 to 9.40 m. bgl.

*(Source: [gwb.gov.in/sites/default/files/2022-10/bhilwara\\_district\\_suwana\\_block.pdf](http://gwb.gov.in/sites/default/files/2022-10/bhilwara_district_suwana_block.pdf))*



**Project Site:**

Depth to water level project site is 10-15 m.

**D. GROUND WATER RESOURCE****Dynamic Resources**

Dynamic Resource of the area for 2020 has been calculated jointly by CGWB and SWID (State Water Investigation Directorate) using GEC-1997 methodology. The irrigation data available to the 5th Minor Irrigation Census, block wise demographic data of 2011 Census, CGWB water level data, cropping pattern, annual monsoon rainfall and normal rainfall provided the basic input for calculating the resources of the state. Block wise (Groundwater assessment unit) geographical area, area under different hydro-geological sub-provinces (sub-units), area under command and non-command, poor ground water quality area and ground worthy recharge area has also been considered. The categorization of the blocks has been done based on their Stage of Development and long term water level trend.

**Dynamic Ground Water Resource & Development Potential in Palwal**

Total Annual Ground Water Recharge (Ham)	Annual Irrigation Draft	Annual GW Allocation for Domestic and Industrial Use	Annual Replenishable Groundwater Resources (Total)	Net Ground Water Availability for future use	Stage of Ground Water Extraction (%)	Category
4264.760	3871.590	393.170	3126.030	2813.430	151.586	Over Exploited

**Ground Water Development**

The unit of assessment is categorized for groundwater development based on two criteria; Stage of ground water development and long-term water level trends. The stage of ground water development in Palwal district (77.474 %). All the blocks in the district are under 'Semi-Critical' category as their stage of groundwater development is less than 100 % and there is steady water level over the years.

**3.4.6 SOIL ENVIRONMENT**

The objectives of the soil sampling are :-

- To determine the baseline soil characteristics of the study area;
- To determine the impact of existing activity on soil characteristics and;
- To determine the impact on soil more importantly with agriculture production point of view.



8 soil samples around the project area were collected and analyzed. The analytical results are given in below.

**Table 3.7: Soil Sampling Locations**

Location Code	Sample Collection Details	Location Name	Co-ordinates
S-1	Soil Sample	Plant Site	28°13'57" N 77°18'28" E
S-2	Soil Sample	Village:-Devali	28°13'49" N 77°19'15" E
S-3	Soil Sample	Village:-Asawati	28°14'55" N 77°19'11" E
S-4	Soil Sample	Village:-Pyala	28°16'02" N 77°18'51" E
S-5	Soil Sample	Village:-Dundsa	28°15'23" N 77°17'44" E
S-6	Soil Sample	Village:-Gadpuri	28°15'08" N 77°16'40" E
S-7	Soil Sample	Village:-Pirthala	28°14'06" N 77°17'19" E
S-8	Soil Sample	Village:-Baghaua	28°12'22" N 77°18'17" E

The soil analysis results are given below: -





PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 3</b> <b>DESCRIPTION OF ENVIRONMENT</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

S.No.	Parameters	Unit	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	
1	Colour	-	Brown								
2	Texture	-	Sandy Loam								
3	Particle size Distributions	Sand	%	42	38	39	45	39	42	43	46
		Silt	%	26	28	25	21	27	26	22	24
		Clay	%	32	34	36	34	34	32	35	30
4	pH (1:5 Solution)	-	7.78	8.10	8.23	7.71	7.96	8.25	7.90	7.80	
5	Electrical Conductivity	µS/cm.	250	289	243	210	203	277	228	193	
6	Bulk Density	gm/cm <sup>3</sup>	1.45	1.40	1.53	1.43	1.39	1.46	1.52	1.41	
7	Porosity	% v/v	29	25	26	27	31	28	26	32	
8	Organic Carbon	%	0.35	0.38	0.33	0.29	0.25	0.36	0.28	0.23	
9	Sodium (Na)	mg/100 gm	24.0	26.0	32.0	29.1	28.0	24.0	19.0	25.0	
10	Potassium (K)	mg/100 gm	40.0	35.0	45.0	36.4	34.58	32.0	33.0	30.0	
11	Moisture Content	%	6.5	7.1	7.9	7.7	7.9	6.8	8.2	6.4	
12	Total Nitrogen	%	30.0	33.0	22.0	21.0	20.0	30.0	19.0	20.0	
13	Available Phosphorous	kg/hectare	15.4	16.2	13.28	10.34	9.27	12.8	8.7	7.4	
14	Organic Matter	%	0.61	0.65	0.57	0.51	0.44	0.63	0.49	0.39	
15	Total Soluble Chloride	mg/kg	180	210	242	219	202.52	189	175	150	
16	Total Soluble Sulphate	%	0.031	0.042	0.035	0.033	0.03	0.045	0.028	0.029	
17	Water Holding Capacity	%	31	36	40	38	38	39	31.2	43	



TABLE-3.9: STANDARD SOIL CLASSIFICATION

S. No.	Soil Test	Classification
1	pH	<4.5 Extremely acidic 4.51- 5.50 Very strongly acidic 5.51-6.00 moderately acidic 6.01-6.50 slightly acidic 6.51-7.30 Neutral 7.31-7.80 slightly alkaline 7.81-8.50 moderately alkaline 8.51-9.0 strongly alkaline 9.01 very strongly alkaline
2	Salinity Electrical Conductivity ( $\mu\text{mhos/cm}$ ) (1ppm = 640 $\mu\text{mho/cm}$ )	Up to 1.00 Average 1.01-2.00 harmful to germination 2.01-3.00 harmful to crops (sensitive to salts)
3	Organic Carbon (%)	Up to 0.2: very less 0.21-0.4: less 0.41-0.5 medium, 0.51-0.8: on an average sufficient 0.81-1.00: sufficient >1.0 more than sufficient
4	Nitrogen (Kg/ha)	Up to 50 very less 51-100 less 101-150 good 151-300 Better >300 sufficient
5	Phosphorus (Kg/ha)	Up to 15 very less 16-30 less 31-50 medium, 51-65 on an average sufficient 66-80 sufficient >80 more than sufficient
6	Potash (Kg/ha)	0 -120 very less 120-180 less 181-240 medium 241-300 average 301-360 better >360 more than sufficient

Source: Hand Book of Agriculture, Indian Council of Agricultural Research

### Interpretation of soil results

- It is observed that the pH of the soil in the study area ranged from 7.71 to 8.23. The maximum pH value of 8.23 is observed at S-3 and whereas the minimum value of 7.71 was observed at S-4.
- The electrical conductivity was observed to be in the range of 193 $\mu\text{S/cm}$  to 289 $\mu\text{S/cm}$  with the maximum observed at S-2 and the minimum observed at S-8.
- The phosphorus values range between 8.7 to 16.2 kg/ha. Indicating that the phosphorus content in the study area falls in medium category.



- The potassium values range between 30.0 to 45.0 mg/100gm.

The result obtained is compared with the standard soil classification given Agriculture Soil Limits. It has been observed that the soils are Sandy loam in texture and slightly alkaline in nature. The nutrient and organic matter contents are medium to average sufficient and the soil is normally fertile.

### 3.5 WATER ENVIRONMENT

The purpose of the study is to: -

1. Assess the water quality characteristics for critical parameters;
2. Evaluate the impacts on agriculture productivity, habitat conditions, recreational resources and aesthetics of the vicinity; and
3. Predict the likely impacts on water quality due to the project and other related activities.

#### 3.5.1 GROUND & SURFACE WATER ANALYSIS

8 ground water samples and 3 surface water sample were collected as grab samples and were analyzed for various parameters as per the procedures specified in "Standard Methods for the Examination of Water and Wastewater" published by American Public Health Association (APHA). Different physico-chemical parameters of ground water during study period were compared with standard at each monitoring stations and shown below.

**Table 3.10: Ground Water Sampling Locations**

Sample code No	Location Name
GW-1	Project Site
GW-2	Village:-Devali
GW-3	Village:-Pahladpur
GW-4	Village:-Pyala
GW-5	Village:-Dundsa
GW-6	Village:-Gadpuri
GW-7	Village:-Pirthala
GW-8	Village:-Baghaura
SW-1	Pahladpur Distributary
SW-2	Agra Canal
SW-3	Village:-Pirthala Pond



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 3  
DESCRIPTION OF ENVIRONMENT

Table 3.11(a): Ground Water Analysis

S. No	Parameter	Units	GW1	GW2	GW3	GW4	GW5	GW6	GW7	GW8	Acceptable Limit	Permissible Limit
1	Color	Hazen	<1	<1	<1	<1	<1	<1	<1	<1	5	15
2	pH	-	7.02	7.28	7.19	7.26	7.22	7.60	6.92	6.98	6.5-8.5	No Relaxation
3	Turbidity	NTU	0.14	0.18	0.16	0.15	0.12	0.13	0.16	0.17	1	5
4	Total Dissolved Solids	Mg/L	423	461	502	528	488	421	589	546	500	2000
5	Electrical Conductivity	µS/cm	651	709	772	813	750	648	906	840	-	-
6	Aluminum as Al	Mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.2
7	Ammonia (as total ammonia-N)	Mg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.5	No Relaxation
8	Anionic Detergents as MBAS	Mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	1.0
9	Barium as Ba	Mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	No Relaxation
10	Boron as B	Mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	1.0
11	Calcium as Ca	Mg/L	31.10	36.93	38.88	36.93	31.10	28.64	29.16	23.33	75	200
12	Chloramines	Mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	No Relaxation
13	Chloride as Cl	Mg/L	102.25	126.25	135.79	147.82	149.94	123.95	210.29	192.94	250	1000
14	Copper as Cu	Mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	1.5
15	Fluoride as F	Mg/L	0.25	0.29	0.33	0.36	0.33	0.27	0.77	0.84	1.0	1.5
16	Free Residual Chlorine	Mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	1.0
17	Iron as Fe	Mg/L	0.06	0.08	0.10	0.11	0.12	0.16	0.15	0.11	0.3	No Relaxation
18	Magnesium as Mg	Mg/L	14.19	14.85	12.39	17.36	19.93	14.78	26.06	22.85	30	100
19	Manganese as Mn	Mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	0.3
20	Nitrate as NO <sub>3</sub>	Mg/L	4.32	5.15	5.44	5.69	4.73	3.82	8.17	7.45	45	No Relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	Mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002
22	Selenium as Se	Mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	No Relaxation
23	Sulphate as SO <sub>4</sub>	Mg/L	17.00	19.85	20.63	20.82	19.69	15.72	22.63	20.18	200	400
24	Total Alkalinity as	Mg/L	123	136	145	166	140.22	128.40	149	134.58	200	600



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

128

54

PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 3</b> <b>DESCRIPTION OF ENVIRONMENT</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/J SPL/IND/EC/2022-23/119	

25	CaCO <sub>3</sub> Total Hardness as CaCO <sub>3</sub>	Mg/L	136	153.26	148	163.59	159.64	132.28	180.28	152.24	200	600
26	Zinc as Zn	Mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	5	15
27	Cadmium as Cd	Mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	No Relaxation
28	Lead as Pb	Mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	No Relaxation
29	Mercury as Hg	Mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	No Relaxation
30	Total Arsenic as As	Mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	0.05
31	Total Chromium as Cr	Mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	No Relaxation
32	Sulphide as S	Mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	No Relaxation
33	Nickel as Ni	Mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	No Relaxation



Table 3.11(b): Ground Water Analysis

S. No	Parameter	Units	GW5	GW6	GW7	GW8	Acceptable Limit	Permissible Limit
1	Color	Hazen	<1	<1	<1	<1	5	15
2	pH	-	7.22	7.60	6.92	6.98	6.5-8.5	No Relaxation
3	Turbidity	NTU	0.12	0.13	0.16	0.17	1	5
4	Total Dissolved Solids	Mg/L	488	421	589	546	500	2000
5	Electrical Conductivity	µS/cm	750	648	906	840	-	-
6	Aluminum as Al	Mg/L	<0.01	<0.01	<0.01	<0.01	0.03	0.2
7	Ammonia (as total ammonia-N)	Mg/L	<0.2	<0.2	<0.2	<0.2	0.5	No Relaxation
8	Anionic Detergents as MBAS	Mg/L	<0.1	<0.1	<0.1	<0.1	0.2	1.0
9	Barium as Ba	Mg/L	<0.1	<0.1	<0.1	<0.1	0.7	No Relaxation
10	Boron as B	Mg/L	<0.1	<0.1	<0.1	<0.1	0.5	1.0
11	Calcium as Ca	Mg/L	31.10	28.64	29.16	23.33	75	200
12	Chloramines	Mg/L	<1.0	<1.0	<1.0	<1.0	4.0	No Relaxation
13	Chloride as Cl	Mg/L	149.94	123.95	210.29	192.94	250	1000
14	Copper as Cu	Mg/L	<0.01	<0.01	<0.01	<0.01	0.05	1.5
15	Fluoride as F	Mg/L	0.33	0.27	0.77	0.84	1.0	1.5
16	Free Residual Chlorine	Mg/L	<0.1	<0.1	<0.1	<0.1	0.2	1.0
17	Iron as Fe	Mg/L	0.12	0.16	0.15	0.11	0.3	No Relaxation
18	Magnesium as Mg	Mg/L	19.93	14.78	26.06	22.85	30	100
19	Manganese as Mn	Mg/L	<0.01	<0.01	<0.01	<0.01	0.1	0.3
20	Nitrate as NO <sub>3</sub>	Mg/L	4.73	3.82	8.17	7.45	45	No Relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	Mg/L	<0.001	<0.001	<0.001	<0.001	0.001	0.002
22	Selenium as Se	Mg/L	<0.01	<0.01	<0.01	<0.01	0.01	No Relaxation
23	Sulphate as SO <sub>4</sub>	Mg/L	19.69	15.72	22.63	20.18	200	400
24	Total Alkalinity as CaCO <sub>3</sub>	Mg/L	140.22	128.40	149	134.58	200	600
25	Total Hardness as CaCO <sub>3</sub>	Mg/L	159.64	132.28	180.28	152.24	200	600
26	Zinc as Zn	Mg/L	<0.01	<0.01	<0.01	<0.01	5	15
27	Cadmium as Cd	Mg/L	<0.003	<0.003	<0.003	<0.003	0.003	No Relaxation
28	Lead as Pb	Mg/L	<0.01	<0.01	<0.01	<0.01	0.1	No Relaxation
29	Mercury as Hg	Mg/L	<0.001	<0.001	<0.001	<0.001	0.001	No Relaxation
30	Total Arsenic as As	Mg/L	<0.005	<0.005	<0.005	<0.005	0.01	0.05
31	Total Chromium as Cr	Mg/L	<0.01	<0.01	<0.01	<0.01	0.05	No Relaxation
32	Sulphide as S	Mg/L	<0.05	<0.05	<0.05	<0.05	0.05	No Relaxation
33	Nickel as Ni	Mg/L	<0.01	<0.01	<0.01	<0.01	0.02	No Relaxation

Table 3.12: Surface Water Analysis

S. No.	Parameters	Unit	Test Method	SW-1	SW-2	SW-3
1	pH	-	APHA (23rd Edition) 4500 H	8.05	7.16	7.55
2	Turbidity	NTU	APHA (23rd Edition) 2130	0.36	0.44	0.36
3	Total Hardness as CaCO <sub>3</sub>	mg/L	APHA (23rd Edition) 2340 C	280	262	228
4	Total Alkalinity as	mg/L	APHA (23rd Edition) 2320	210	192	263.2



	CaCO <sub>3</sub>					
5	Chlorides as Cl	mg/L	APHA (23rd Edition) 4500 Cl- B	227.53	218.98	187.07
6	Sulphate as SO <sub>4</sub>	mg/L	APHA (23rd Edition) 4500 E	64	52.47	48.36
7	Nitrate as NO <sub>3</sub>	mg/L	APHA (23rd Edition) 4500 NO <sub>3</sub> - B	18.70	16.03	12.98
8	Fluoride as F	mg/L	APHA (23rd Edition) 4500 F D	0.51	0.43	0.76
9	BOD <sub>3</sub> Days at 27°C	mg/L	IS 3025 (Part 44)	15	8.2	22.71
10	COD	mg/L	APHA (23rd Edition) 5220 B	60	39.28	120
11	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	APHA (23rd Edition) 5530C	<0.001	<0.001	<0.001
12	Lead as Pb	mg/L	APHA (23rd Edition) 3111B	<0.01	<0.01	<0.01
13	Iron as Fe	mg/L	APHA (23rd Edition) 3111B	0.03	<0.01	0.11
14	Arsenic as As	mg/L	APHA (23rd Edition) 3114B	<0.005	<0.005	<0.005
15	Cadmium as Cd	mg/L	APHA (23rd Edition) 3111B	<0.003	<0.003	<0.003
16	Total Chromium as Cr	mg/L	APHA (23rd Edition) 3111B	<0.01	<0.01	<0.01
17	Mercury as Hg	mg/L	APHA (23rd Edition) 3112B	<0.001	<0.001	<0.001
18	Copper as Cu	mg/L	APHA (23rd Edition) 3111B	<0.01	<0.01	<0.01
19	Zinc as Zn	mg/L	APHA (23rd Edition) 3111B	<0.01	<0.01	<0.01
20	Selenium as Se	mg/L	APHA (23rd Edition) 3114B&C	<0.01	<0.01	<0.01
21	Oil & grease	mg/L	APHA (23rd Edition) 5520 B	3.26	1.06	5.29
22	Colour	Hazen	APHA (23rd Edition) 2120B	<1.0	<1.0	<1.0
23	Total Dissolved Solids	mg/L	APHA (23rd Edition) 2540 C	928	832	853
24	Residual Free Chlorine	mg/L	APHA (23rd Edition) 4500 Cl B	<0.2	<0.2	<0.2
25	Boron as B	mg/L	APHA (23rd Edition) 4500B-B	<0.10	<0.10	<0.10
26	Calcium as Ca	mg/L	APHA (23rd Edition) 3500 Ca B	54.20	49.80	50.29
27	Magnesium as Mg	mg/L	APHA (23rd Edition) 3500 Mg B	35.18	34.00	24.91
28	Dissolved Oxygen	mg/L	APHA (23rd Edition) 4500 DO C	5.2	5.5	4.7
29	Total Coliform	CFU/100ml	IS 15185	>1500	>1500	>1500
30	E. Coli	CFU/100ml	IS 15185	Absent	Absent	Absent

### 3.5.2 INTERPRETATION OF RESULT

#### 3.5.2.1 Ground Water

- The analysis results of eight ground water samples showed the pH in range of 6.92 - 7.60 indicating alkaline nature of ground water.
- Color and turbidity of the samples ranged from <1 Hazens and <1 NTU respectively.
- The total hardness of the samples ranged from 132 mg/l -180 mg/l. The minimum value was observed in (GW6) and whereas the maximum value observed at (GW7).
- Calcium and magnesium concentrations ranged from 23 -38.88 mg/l and 19.93 - 26.06 mg/l respectively.
- The dissolved solids of the samples ranged from 421mg/l -598 mg/l. The maximum value was observed at G-7 and whereas the minimum value observed at G-6.
- Range of chlorides and sulphate concentrations at all the locations 102.25 mg/l - 210mg/l and 15.72 mg/l -22.63 mg/l respectively.







PROJECT: ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR	CHAPTER- 3 DESCRIPTION OF ENVIRONMENT
CLIENT: JYOTI STRIPS PRIVATE LIMITED	
PROJECT NO.: EESPL/JSPL/IND/EC/2022-23/119	

Waste disposal		mhos/cm Max.2250 ➤ Sodium absorption Ratio Max. 26 ➤ Boron Max. 2mg/l
	Below-E	Not Meeting A, B, C, D & E Criteria

### 3.6 AIR ENVIRONMENT

The prime objective of the baseline air monitoring was to evaluate the existing air quality of the area. This will also be useful for assessing the conformity to standards of the ambient air quality during the operation of the plant.

The baseline status of the air quality has been assessed through a scientifically designed ambient air quality monitoring network based on the following considerations:-

- Meteorological conditions on synoptic scale;
- Topography of the study area;
- Representatives of regional background air quality for obtaining baseline status; and
- Representatives of likely impact areas.

#### 3.6.1 MICRO-METEOROLOGICAL DATA

##### IMD DATA:

The secondary data pertaining to the nearest location New Delhi (Palam) was collected for the year 1981-2010. This data were utilized while selection of monitoring locations for generation of baseline data. It was also utilized for verification of primary data collected. The summary of the IMD collected data for the months of March, April and May is given below:

**Table 3.14: Summary of Climatological data of New Delhi (Palam) for the year 1981-2010**

Month	Air Temperature(°C)		Relative Humidity (%)		Rainfall in mm	Mean wind speed in kmph
	Min.	Max.	Min.	Max.		
March	9.3	36	34	66	13.2	6.9
April	15.1	42.5	23	45	9.1	7.5
May	20.4	45	26	44	37.7	8.1

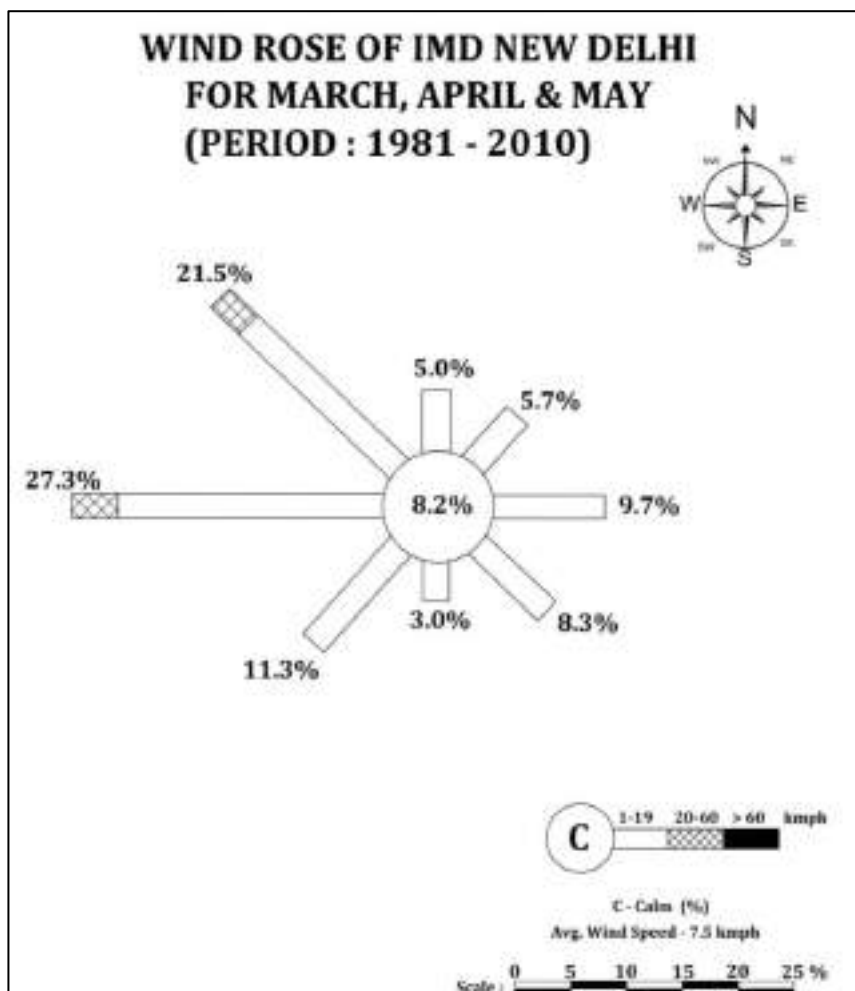
##### Interpretation of secondary data:

The average annual rainfall was observed to be 674.5 mm. The temperatures and relative humidity for the months of March, April & May (summer season) were observed to be in the range of 9.3 °C to 45 °C and 23% to 66% respectively.



The winds were in the range of 6.9 to 8.1 kmph with calm conditions of 8.2%. The predominant wind directions during summer season were observed to be blowing from West to East.

**Wind rose:**



**Micro Meteorological Data Recorded at Project Site**

Percentage frequencies of wind in 16 directions have been computed from the recorded data during the study period [1<sup>st</sup> March 2023 to 31<sup>th</sup> May 2023] for hourly intervals to plot wind rose. The figure represents the summary of the wind pattern for the study period.

**SITE SPECIFIC WIND ROSE**

The predominant wind direction during this study period is observed to be blowing between WSW, SW, SSW, E, SE directions. The average wind speed during this period is 4.35 m/s. Calm wind during this period 0.08% the recorded meteorological data of study period at project site is given below.



**Table 3.15: Summary of micro-meteorological data**

Month	Temperature (°C)		Relative Humidity (%)		Rainfall in mm		Wind Speed mps	
	Max	Min	Max	Min	Max	Min	Max	Min
MARCH- 2023	39.4	13.4	65.4	29.8	3.7	0.0	9.4	<1.0
APRIL- 2023	40.0	10.0	70.0	37.0	5.6	0.0	16.0	<1.0
MAY- 2023	42.7	16.6	94.0	14.0	3.1	0.0	21.0	<1.0

**3.6.2 WIND ROSE DIAGRAM**

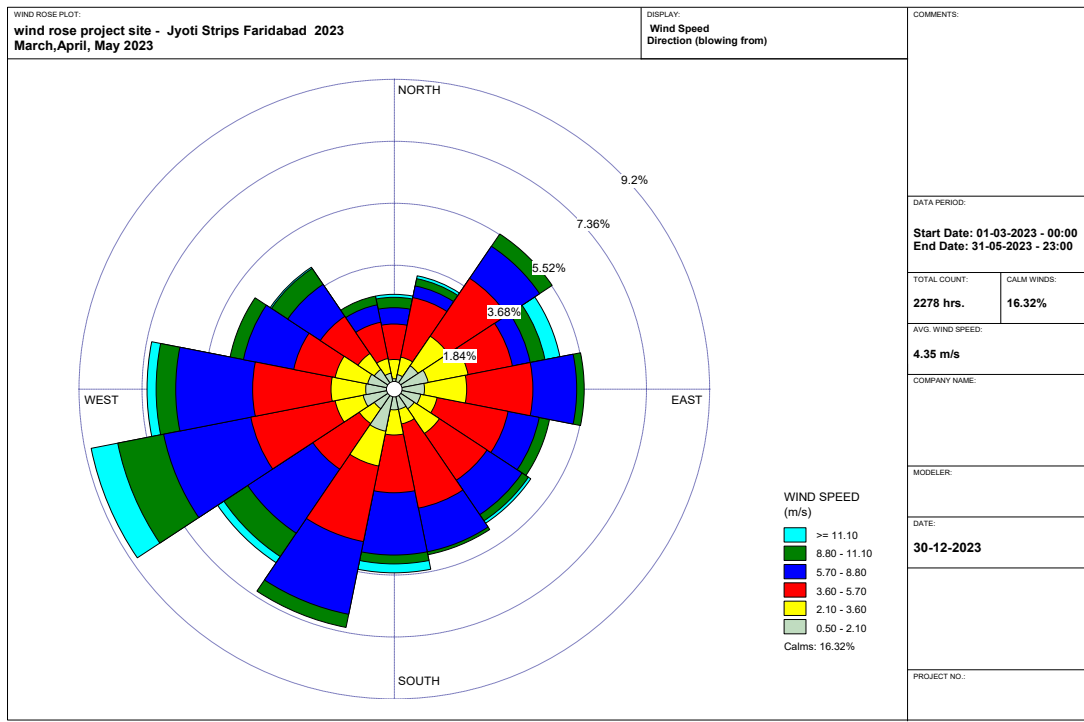
Wind rose is the diagrammatic representation of wind speed in a specified direction with its arms representing sixteen directions. Each arm gives a clear frequency distribution of wind speed in a particular direction for a given period of time. The wind rose diagram for the study period was developed & presented below.

**Table 3.16: Summary of the Wind Pattern**

S. No.	Wind Direction	0.5-2.1 Speed m/s	>= 2.1 Speed m/s	Total
1.	N	7	57	64
2.	NNE	10	68	78
3.	NE	19	107	126
4.	ENE	23	89	112
5.	E	20	106	126
6.	ESE	18	87	105
7.	SE	16	93	109
8.	SSE	14	100	114
9.	S	14	110	124
10.	SSW	29	135	164
11.	SW	16	125	141
12.	WSW	21	120	205
13.	W	19	145	164
14.	WNW	18	184	111
15.	NW	16	93	99
16.	NNW	11	53	64
Sub-Total				1906
Calms				372
Missing/Incomplete				1
Total				2279



PROJECT: JYOTI STRIPS PRIVATE LIMITED	<b>CHAPTER- 3</b> <b>DESCRIPTION OF ENVIRONMENT</b>
PROJECT NO.: EESPL/JSPL/IND/EC/2022-23/119	
DATE: 12/08/2024/ISSUED BY: SARUP SINGH, PAJWAL	



**Figure 3.9: Wind Rose Diagram**

The predominant wind direction during this study period is observed to be blowing between SW, WSW, W, WNW, and NW directions. The average wind speed during this period is 8.7 m/s. Calm wind during this period 0.32 %.

**3.6.3 AMBIENT AIR QUALITY DATA**

Ambient air quality monitoring stations were selected on the basis of surface influence, demographic influence and meteorological influence. The ambient air monitoring has been carried out with a frequency of two days in a week at 8 locations covering one complete season.

**Table 3.17: Sampling Frequency**

Parameters	Sampling Frequency
PM <sub>10</sub>	24 hourly sample twice a week
PM <sub>2.5</sub>	24 hourly sample twice a week
Sulphur Dioxide (SO <sub>2</sub> )	8 hourly for 24 hrs sample twice a week
Oxides of Nitrogen (NO <sub>x</sub> )	8 hourly for 24 hrs sample twice a week
Carbon Monoxide	8 hourly for 24 hrs sample twice a week

**Table 3.18: Instruments used for Sampling**

Instrument	Make	Model No.
Respirable Dust Sampler (RDS)	M/s. Envirotech Instruments Pvt. Ltd., New Delhi	APM 460 APM 451
Fine Particulate Sampler (FPS)	M/s. Envirotech Instruments Pvt. Ltd., New Delhi	APM 550
Combo for PM 10 & PM 2.5	M/s. Ecotech Instruments, New Delhi	AAS 271



**Table 3.19: Sampling and Analytical Techniques**

Particular		Testing Method to be Followed
Ambient Air Monitoring Characteristics		
A	PM <sub>10</sub>	IS 5182 (Part 23)
B	PM <sub>2.5</sub>	IS 5182 (Part 24)
C	SO <sub>2</sub> (Sulfur Dioxide)	IS 5182 (Part 2)
D	NO <sub>2</sub> (Nitrogen Dioxide)	IS 5182 (Part 6)
E	CO (Carbon Monoxide)	SCS/SOP/AAQ/13

**Table 3.20: Ambient Air Quality Monitoring Results**

S. No.	Locations	Pollutant		Minimum	Maximum	Average	98 <sup>th</sup> Percentile	CPCB Standards
1	Project site	PM <sub>10</sub>	µg/m <sup>3</sup>	73.40	84.90	78.76	84.20	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	43.60	52.60	47.79	52.33	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.13	6.12	4.49	5.88	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	7.15	12.14	9.10	11.85	80
		CO	µg/m <sup>3</sup>	0.21	0.51	0.34	0.50	2000
2	Devali	PM <sub>10</sub>	µg/m <sup>3</sup>	65.40	82.40	72.38	80.08	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	39.60	46.50	42.38	46.28	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.98	6.12	4.94	5.98	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	7.55	13.54	10.09	13.47	80
		CO	µg/m <sup>3</sup>	0.25	0.61	0.42	0.57	2000
3	Asawati	PM <sub>10</sub>	µg/m <sup>3</sup>	64.2	77.3	70.08	76.81	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	39.4	46.9	42.35	46.2	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.98	5.81	4.85	5.81	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	8.01	12.16	9.52	11.72	80
		CO	µg/m <sup>3</sup>	0.24	0.62	0.39	0.6	2000
4	Pyala	PM <sub>10</sub>	µg/m <sup>3</sup>	64.2	76.8	70.13	75.77	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	38.5	46.1	41.93	45.94	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.36	6.86	5.16	6.74	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	7.24	14.58	11.54	14.47	80
		CO	µg/m <sup>3</sup>	0.25	0.65	0.51	0.65	2000
5	Dundsa	PM <sub>10</sub>	µg/m <sup>3</sup>	67.3	78.5	72.21	77.37	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	39.5	47.3	42.56	47.08	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	4.52	15.4	7.27	14.21	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	6.88	18.1	11.17	16.97	80
		CO	µg/m <sup>3</sup>	0.25	0.59	0.39	0.55	2000
6	Gadpuri	PM <sub>10</sub>	µg/m <sup>3</sup>	66.4	73.5	70.35	73.45	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	35.1	67.4	41.33	54.49	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	3.15	7.24	4.9	6.81	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	7.25	13.12	9.98	12.96	80
		CO	µg/m <sup>3</sup>	0.25	0.64	0.44	0.63	2000
7	Pirthala	PM <sub>10</sub>	µg/m <sup>3</sup>	66.5	74.1	70.09	73.78	100
		PM <sub>2.5</sub>	µg/m <sup>3</sup>	35.9	43.5	39.9	43.45	60
		SO <sub>2</sub>	µg/m <sup>3</sup>	5.36	10.68	7.59	10.64	80
		NO <sub>2</sub>	µg/m <sup>3</sup>	8.24	14.78	11.2	14.67	80
		CO	µg/m <sup>3</sup>	0.28	0.59	0.4	0.59	2000
8	Baghaura	PM <sub>10</sub>	µg/m <sup>3</sup>	64.1	76.8	71.93	76.8	100



34/2023/2024/REGISTRATION - PAIWAJ		CHAPTER- 3 DESCRIPTION OF ENVIRONMENT
T: DRA T EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX		
ANT: JY	OTI STRIPS PRIVATE LIMITED	
ENT NO.:	EESPL/JSPL/IND/EC/2022-23/119	

	PM2.5	µg/m <sup>3</sup>	36.5	47.2	41.86	46.93	60
	SO <sub>2</sub>	µg/m <sup>3</sup>	5.34	13.4	7.7	12.37	80
	NO <sub>2</sub>	µg/m <sup>3</sup>	8.2	16.45	11.86	15.98	80
	CO	µg/m <sup>3</sup>	0.22	0.62	0.45	0.61	2000

### 3.6.4 INTERPRETATION OF RESULTS

The analysis results for the study period are presented in above monitoring tables. Various statistical parameters like 98<sup>th</sup> percentile, average, maximum and minimum values have been computed from the observed raw data for all the AAQ monitoring stations. These are compared with the standards prescribed by Central Pollution Control Board (CPCB) for rural and residential zone.

The observation based on the perusal of the results is summarized below: -

**PM10:** The maximum value for PM10 observed at Plant Site 84.90 µg/m<sup>3</sup> and minimum value for PM10 observed at **Baghaura** 64.1 µg/m<sup>3</sup>. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 100 µg/m<sup>3</sup>.

**PM2.5:** The maximum value for PM2.5 observed at **Gadpuri** 67.4 µg/m<sup>3</sup> and minimum value for PM2.5 observed at Village- **Gadpuri** 35.1 µg/m<sup>3</sup>. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 60 µg/m<sup>3</sup>.

**SO2:** The maximum value for SO<sub>2</sub> observed at **Dundsa** 15.4 µg/m<sup>3</sup> and minimum value for SO<sub>2</sub> observed at Village- Plant Site 3.13 µg/m<sup>3</sup>. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80 µg/m<sup>3</sup>.

**NO2:** The maximum value for NO<sub>2</sub> observed at **Dundsa** 18.1 µg/m<sup>3</sup> and minimum value for NO<sub>2</sub> observed at Village- **Dundsa** 6.88 µg/m<sup>3</sup>. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80 µg/m<sup>3</sup>.

**CO:** The maximum value for CO observed at **Payala** 0.65 µg/m<sup>3</sup> and minimum value for CO observed at **Plant Site** 0.21 µg/m<sup>3</sup>. The 8 hours applicable limit for Industrial, Residential Rural and other areas is 2000 µg/m<sup>3</sup>.

#### Results and Conclusions

The results of the monitored data indicate that the ambient air quality of **PM10, PM2.5, Sox, NOx & CO** are within the permissible limit by CPCB at all the locations.

#### Mitigation measures:

The mitigation measures prescribed by Air Commission are being adopted holistic to reduce the air pollution for which the mitigation measure are incorporated in Chapter-4 of EIA/EMP report.



### 3.7 NOISE ENVIRONMENT

The main objective of noise monitoring in the study area is to establish the baseline noise level and assess the impact of the total noise expected to be generated during the project operations around the project site.

**Table 3.21: Noise (Sound) Measuring Instrument**

Instrument	Make	Model No.	Detection Limit
Sound Level Measurement Instrument Standard Accessories	HTC (Data Logger)	SL-4033SD	Low: 30-80dB High: 80-130dB

**Table 3.22: Testing Method followed**

Particular	Testing Method to be Followed
A Noise Level in dB (A) for continuous 24 hours at 1 hour interval	IS:9876 2001

#### 3.7.1 AMBIENT NOISE LEVEL DATA

The statistical analysis is done for measured noise level at 8 locations. The parameters are analyzed for  $L_{eq}(\text{day})$ ,  $L_{eq}(\text{night})$  and  $L_{eq}(\text{day-night})$ . The statistical analysis results are given in below: -

**Table 3.23: Noise Level Data**

Time (March)	N-1	N-2	N-3	N-4	N-5	N-6	N-7	N-8
<b>Day time</b>	<b>RESULTS dB (A)</b>							
6.00	48.4	50.0	50.4	50.4	50.0	50.0	50.0	48.4
7.00	50.0	48.1	51.1	51.9	51.0	51.9	51.9	50.0
8.00	53.4	51.9	48.1	50.1	50.9	53.4	53.4	52.0
9.00	55.9	53.9	50.9	48.9	48.8	48.9	48.9	50.1
10.00	54.4	50.1	48.1	50.4	50.4	50.4	50.4	48.4
11.00	55.1	48.8	50.4	51.1	48.9	48.8	48.8	48.1
12 Noon	52.4	50.0	48.9	48.8	50.4	52.1	52.1	50.9
13.00	53.0	50.0	50.1	52.1	48.4	51.4	51.4	48.1
14.00	55.4	52.1	48.9	50.4	50.4	50.1	50.1	50.9
15.00	62.9	51.9	51.0	48.4	51.1	48.8	48.8	48.1
16.00	54.8	50.0	50.8	50.1	48.4	50.4	50.4	51.9
17.00	60.0	48.8	51.4	51.4	50.1	48.4	48.4	50.1
18.00	58.8	51.1	50.1	48.4	48.4	50.1	50.1	50.0
19.00	57.4	50.1	48.8	47.1	50.0	48.8	48.8	51.0
20.00	55.4	51.4	47.1	48.1	48.4	47.4	47.4	48.8
21.00	52.1	48.8	45.1	45.1	47.4	45.4	45.4	47.4
<b>Night time</b>	<b>RESULTS dB (A)</b>							
22.00	50.4	47.4	43.9	44.9	44.9	43.1	43.1	45.1
23.00	48.1	44.4	42.4	43.1	42.0	42.4	42.4	43.9



PROJECT: JYOTI STRIPS PRIVATE LIMITED	CHAPTER- 3 DESCRIPTION OF ENVIRONMENT
DATE: 12/08/2024	
PROJECT NO.: EESPL/JSPL/IND/EC/2022-23/119	

24.00	45.9	42.4	40.4	42.8	43.5	42.0	42.0	42.1
1.00	43.4	40.0	42.4	40.1	41.8	40.8	40.8	42.1
2.00	42.9	42.9	40.1	42.1	40.4	42.4	42.4	43.9
3.00	44.1	43.4	43.1	44.4	42.1	44.4	44.4	44.4
4.00	43.9	45.8	45.1	45.9	45.1	47.9	47.9	45.1
5.00	47.8	48.1	48.9	48.4	47.0	48.4	48.4	47.8
<b>Leq Day</b>	<b>57.8</b>	<b>51.4</b>	<b>50.7</b>	<b>50.7</b>	<b>52.9</b>	<b>50.8</b>	<b>51.7</b>	<b>50.9</b>
<b>Leq Night</b>	<b>45.6</b>	<b>42.0</b>	<b>41.9</b>	<b>42.6</b>	<b>42.7</b>	<b>40.1</b>	<b>41.9</b>	<b>43.1</b>
<b>Leq Day &amp; Night</b>	<b>59.9</b>	<b>53.1</b>	<b>51.8</b>	<b>52.8</b>	<b>54.0</b>	<b>51.6</b>	<b>52.0</b>	<b>51.8</b>

Time (April)	N-1	N-2	N-3	N-4	N-5	N-6	N-7	N-8
<b>Day time</b>	<b>RESULTS dB (A)</b>							
6.00	48.1	52.0	52.1	50.4	50.4	52.1	52.4	51.9
7.00	51.0	50.1	50.9	52.1	52.9	50.4	50.0	53.4
8.00	52.1	51.9	48.8	50.0	53.0	51.9	48.8	51.9
9.00	50.1	48.8	50.4	52.9	50.9	48.8	51.1	50.0
10.00	53.0	50.9	52.1	50.0	51.1	50.0	52.0	51.9
11.00	54.4	52.4	51.4	48.9	50.1	51.1	52.4	52.1
12 Noon	60.1	50.7	48.1	51.4	48.9	50.8	48.4	50.4
13.00	62.4	53.0	50.1	53.8	54.4	54.1	50.9	53.9
14.00	59.1	54.4	52.9	55.0	52.1	51.4	51.1	54.4
15.00	61.1	51.8	51.0	51.9	50.9	53.1	52.4	52.4
16.00	62.0	52.4	55.1	50.1	51.1	50.0	53.1	50.4
17.00	60.8	53.0	52.1	52.9	52.9	52.7	51.9	52.1
18.00	58.1	50.4	51.0	53.1	50.4	50.4	52.9	51.9
19.00	59.4	51.1	50.4	50.4	48.1	48.4	50.1	50.4
20.00	60.1	48.8	48.1	50.0	45.1	45.9	48.8	48.1
21.00	54.4	45.1	45.7	47.1	45.9	47.8	47.4	45.1
<b>Night time</b>	<b>RESULTS dB (A)</b>							
22.00	50.7	44.9	43.1	45.1	43.4	45.4	45.1	44.1
23.00	48.4	42.4	42.9	40.9	42.9	43.9	43.9	42.0
24.00	45.0	42.4	40.0	42.6	44.5	42.9	40.9	42.4
1.00	44.1	42.8	44.1	42.1	39.8	43.1	43.9	42.4
2.00	45.9	44.1	45.9	44.8	40.4	45.4	45.4	43.9
3.00	43.4	45.0	48.4	45.9	42.1	45.0	45.9	45.1
4.00	44.1	48.9	48.1	48.4	45.4	48.9	48.1	47.9
5.00	48.4	50.4	50.4	48.9	48.9	50.4	50.4	50.4
<b>Leq Day</b>	<b>54.6</b>	<b>54.0</b>	<b>55.6</b>	<b>52.9</b>	<b>54.1</b>	<b>53.0</b>	<b>54.9</b>	<b>52.2</b>
<b>Leq Night</b>	<b>43.9</b>	<b>44.9</b>	<b>44.6</b>	<b>42.6</b>	<b>43.6</b>	<b>41.9</b>	<b>45.6</b>	<b>42.0</b>
<b>Leq Day &amp; Night</b>	<b>56.0</b>	<b>55.6</b>	<b>57.0</b>	<b>54.0</b>	<b>55.9</b>	<b>54.8</b>	<b>56.0</b>	<b>53.7</b>

Time (May)	N-1	N-2	N-3	N-4	N-5	N-6	N-7	N-8
<b>Day time</b>	<b>RESULTS dB (A)</b>							
6.00	53.9	51.0	47.1	48.0	50.0	45.0	47.8	48.1
7.00	51.4	53.1	45.9	50.4	48.9	48.9	50.4	48.9
8.00	60.8	54.4	48.1	52.8	52.4	50.4	48.1	51.0
9.00	57.0	55.8	50.4	51.4	50.1	48.1	51.0	50.8



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

66

140



PROJECT: EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 3 DESCRIPTION OF ENVIRONMENT
CLIENT: JYOTI STRIPS PRIVATE LIMITED	
PROJECT NO.: EESPL/JSPL/IND/EC/2022-23/119	

10.00	61.1	53.1	52.5	53.1	51.5	50.0	51.1	52.0
11.00	54.4	51.0	51.1	50.4	50.0	51.1	52.8	51.1
12 Noon	51.4	52.4	53.8	52.1	53.4	50.4	53.0	50.9
13.00	52.0	53.0	52.1	50.4	51.9	51.0	52.4	51.5
14.00	53.9	53.9	53.9	51.9	53.0	52.1	53.0	52.2
15.00	58.1	50.4	54.4	54.1	50.1	51.8	50.4	50.0
16.00	59.8	52.9	52.1	53.9	51.4	53.1	52.8	48.8
17.00	61.1	53.1	50.4	51.0	50.6	50.4	51.1	52.4
18.00	60.0	51.0	51.8	52.9	51.7	51.0	50.9	50.0
19.00	59.4	52.8	52.4	50.4	50.9	50.9	52.1	50.9
20.00	57.8	53.1	50.1	48.8	51.0	48.9	50.9	48.1
21.00	50.9	50.4	47.8	45.1	48.1	47.4	48.8	47.4
<b>Night time</b>	<b>RESULTS dB (A)</b>							
22.00	48.4	48.8	45.1	44.9	45.6	45.1	47.5	45.8
23.00	45.1	47.7	43.4	42.5	44.8	44.9	45.4	43.4
24.00	44.0	43.1	42.0	40.1	42.9	42.4	43.9	42.0
1.00	43.0	43.1	40.1	42.1	43.9	38.9	39.1	40.4
2.00	42.9	45.9	42.9	43.4	42.1	42.1	40.4	42.1
3.00	44.1	47.8	43.1	44.1	44.9	42.8	42.9	43.9
4.00	47.9	48.4	42.5	45.9	45.1	43.4	44.1	44.8
5.00	48.0	52.9	44.4	47.8	48.4	45.1	45.9	47.9
<b>Leq Day</b>	<b>57.2</b>	<b>53.7</b>	<b>52.4</b>	<b>51.7</b>	<b>51.0</b>	<b>50.7</b>	<b>49.6</b>	<b>52.0</b>
<b>Leq Night</b>	<b>42.9</b>	<b>43.5</b>	<b>42.9</b>	<b>43.5</b>	<b>43.8</b>	<b>41.9</b>	<b>41.5</b>	<b>44.5</b>
<b>Leq Day &amp; Night</b>	<b>59.1</b>	<b>54.3</b>	<b>53.3</b>	<b>53.6</b>	<b>52.9</b>	<b>51.8</b>	<b>51.7</b>	<b>54.0</b>

### 3.7.2 INTERPRETATION OF RESULT

#### a) Day Time Noise Levels (Leqday)

The daytime (Leqday) noise levels are observed in Pirthala to be in the range of 61.1 dB(A) which are within the prescribed limit of 75 dB(A) and in residential areas to be in the range of 45.9 – 61.1 dB(A) which are within the prescribed limit of 55 dB(A).

#### b) Night time Noise Levels (Leqnight)

The nighttime (Leqnight) noise levels are observed in Plant Site to be in the range of 39.1 dB(A) which are within the prescribed limit of 70 dB(A) and in residential areas to be in the range of 39.1 – 48.4 dB(A) which are within the prescribed limit of 45 dB(A).

Category of Zones	Leq in dB(A)	
	Day	Night
Industrial	75	70
Commercial	65	55



Residential	55	45
Silence	50	40
<p>1. Day time if from 6.00am to 10 pm</p> <p>2. Night time if from 10.00 pm to 6 am</p> <p>3. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority.</p> <p>4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority</p>		

### 3.8 BIOLOGICAL ENVIRONMENT

#### 3.8.1 OBJECTIVE

The purpose of this Biological Study is to prepare a checklist of Flora & Fauna present in the study area (Core and Buffer Zone). The basic objective of the study is to effect on the flora and fauna in the vicinity of the project area. For this we have studied the plant community structure of both core and buffer zone using quadrat methods.

Desktop literature review was also conducted to identify the representative spectrum of threatened species, population and ecological communities listed by IUCN, WCMC, ZSI, BSI and Indian Wild Life Protection Act, 1972.

The objectives of the present study were as follows:-

1. To identify the floral and faunal diversity;
2. To identify the endangered species of flora and fauna, if any
3. To prepare conservation plan for Schedule- I, if any
4. To mark eco-sensitive areas in the study area, if any.

We cannot recreate a species if it is extinct. So, biological/ ecological impact assessment is an integral and important component of Environmental Impact Assessment (EIA). Baseline information/ data on the flora and fauna of the particular area are important form for inferring the impact of an existing cement project. The ultimate aim of an ecological assessment is to avoid or minimize the impacts of a proposed development. They are therefore related to the aim of Nature Conservation which, in broad terms, is to maintain and where possible increase, biodiversity.

The present work also envisaged to assess the likely impacts of project activities and streamline the recommendations to assist minimizing the impact on biodiversity.

#### 3.8.2 PERIOD OF THE STUDY & DELINEATION OF THE STUDY AREA

The study area for the project is restricted within 10.0 km radius around the proposed project area based on approved ToR No SEIAA/HR/2023/426 dated 27.10.2023. Baseline study, for the assessment of the floral and faunal biodiversity of the terrestrial



environment of the study area, within 10 km radius from the plant site has been conducted during 1<sup>st</sup> March to 31<sup>st</sup> May 2023. The project study area was delineated into two zones for biodiversity inventory. The proposed project site boundary was considered as Core Zone, while, the area encompassing 10 km radius from the periphery of the project boundary was designated as Buffer Zone.

### 3.8.3 SAMPLING METHODOLOGY

**Table 3.24: Methods used for study of flora & fauna**

Taxa	Sampling Methods
Plants	Inventerization and quadrat sampling
Butterflies	
Amphibians	Visual encounter survey (search)
Reptiles	Visual encounter survey (search)
Birds	Point count, opportunistic observation
Mammals	Tracks and signs, and visual encounter survey

#### 3.8.3.1 Flora

Floral status was assessed in different habitat types and project site of the study area. Quantitative data was collected using standard quadrat method followed by Mueller-Dombois and Ellenberg 1967, Kershaw, 1973.

Floral enumeration was done following standard sampling techniques. Random quadrates were laid in order to quantify the vegetation of the study area. Quadrat size for trees was 10 x 10 m, for shrubs it was 5 x 5 m and for herbs it was 1 x 1m. Plots of 1 x 1 m were laid within the tree quadrat at each corner to record grasses. In each of the quadrates, species and their number were recorded.

#### 3.8.3.2 Fauna

##### Avifauna

Standard methods were followed to survey the avifauna. Opportunistic surveys were carried out with respect to avifaunal checklist. Identification by calls was also made for species which were not directly encountered or were hidden in the vegetation or canopy (Sridharan 1989, Bhupathy 1991, Bibby et al., 1992 and Hutto et al., 1986).

##### Herpetofauna

Sampling for these species involved capturing individuals by hand or observation through binoculars and aural surveys.

##### Mammals

Presence of mammals was documented by using both direct and indirect evidences. Opportunistic sightings were also included. Circular Plots were used to search indirect evidence i.e. animal burrows/ holes, scat, pellets, feeding signs, and tracks. Photographic



(colored pictorial guide) field guide were used for interviews with local residents (Burnham et al. 1980, Rodgers 1991, Sale and Berkmuller, 1988, Daniel, 1992)

The data collected in the field was analyzed for secondary parameters such as density, frequency and abundance following standard phyto-sociological methods. Shannon-Wiener diversity index (Shannon and Wiener, 1963) was calculated for all life forms as following:-

**Table .....: Estimation of phyto-sociological parameters**

1	Frequency (%) = (Nos. of quadrates of occurrence of the species X 100) / Total No. of quadrates sampled
2	Abundance = Total Nos. of individuals of the species / No. of quadrates of occurrence
3	*Density = Total Nos. of individuals of the species / Total No. of quadrates sampled
4	Relative Frequency= (Frequency of the given species X 100) / Sum of all frequencies
5	Relative Density= (Density of the given species X 100) / Sum of all densities
6	Relative Abundance= (Abundance of species X 100) / Sum of all abundances
7	Important Value Index (I.V.I.)= Relative Density + Relative Frequency + Relative abundance

Note: \*Density refers to the number of individuals per unit area of a site.

#### Limitations of the methodology

- Complete flora and fauna surveys can require multiple surveys, at different times of year, and over a period of a number of years, to enable observation of all species present.
- Some flora species, such as annuals, are only available for collection at certain times of the year, and others are only identifiable at certain times (such as when they are flowering). Additionally, climatic and stochastic events (such as fire) may affect the presence of plant species. Species that have a very low abundance in the area are more difficult to locate, due to above factors. Therefore, while this flora survey was relatively exhaustive, and was conducted at a time of year when the majority of the flora species would be able to be identified, there is the possibility that some species with low abundance in the area have been overlooked.
- The fauna survey undertaken was a reconnaissance survey only and thus only sampled those species that can be easily seen, heard or have distinctive signs, such as tracks, scats, diggings etc.

#### 3.8.3.3 Statistical Analysis

Shannon-Wiener diversity index (Shannon and Wiener, 1963) was calculated for all life forms following:-

$$\text{Shannon- Wiener Information Function: } D = -\sum p_i \ln p_i$$

Where: i = an index for the number of species sampled,  $p_i = n_i/N$  =percentage of species i in the entire sample (N) of individuals, and ln = natural log. Multiply the percentage (or proportion) of each species in the sample times the natural log of that same value, sum the products across all species, and then multiply by minus 1.



Sampling locations were selected on the basis of topography, land use, vegetation pattern, etc, as per the objectives and guidelines of MoEF&CC for Environmental Impact Assessment. All observations were taken in and around sampling locations for quantitative representation of different species. The sampling location for Terrestrial ecological environment is given in map.

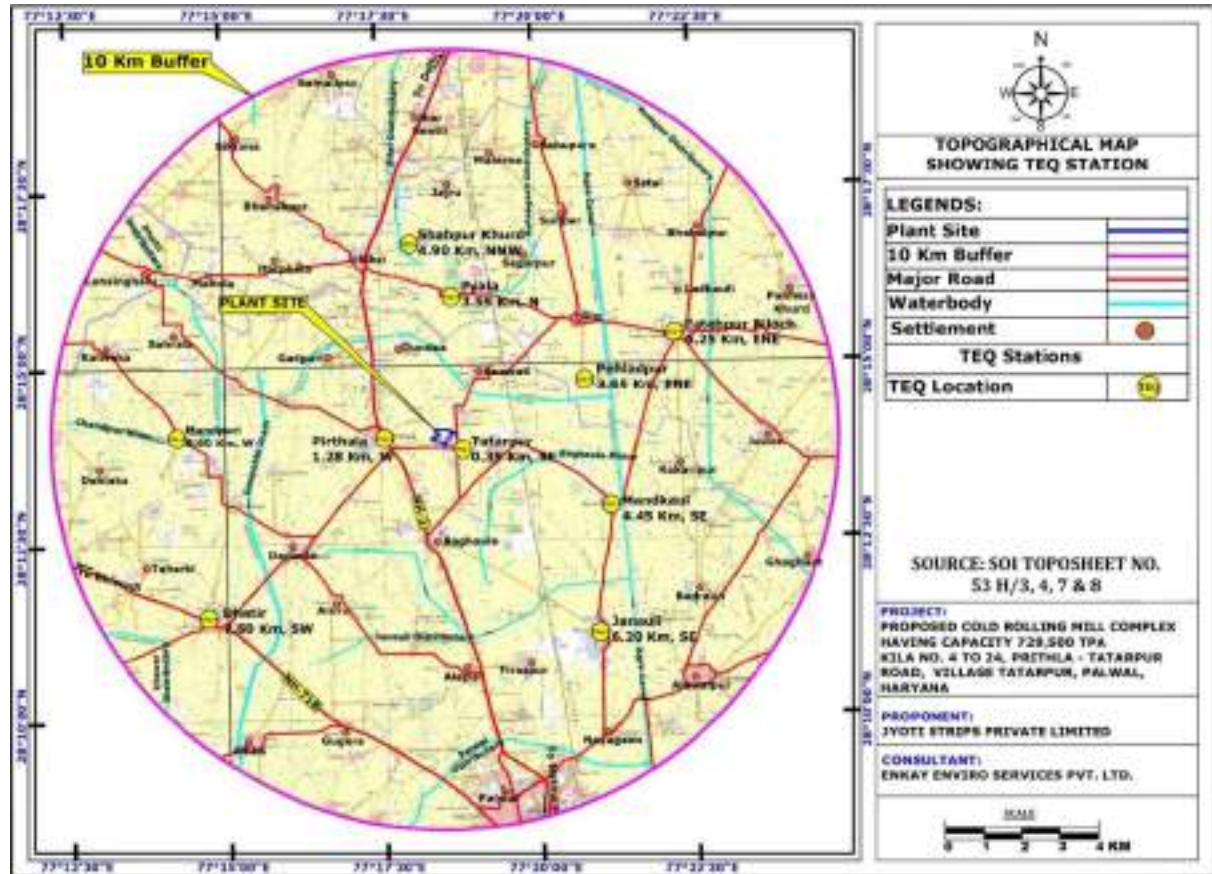


Figure 3.26: - Ecological Sampling Locations





Figure3.27: proposed project site photographs









**3.8.4 STATUS OF FLORA AND FAUNA IN PROPOSED PROJECT SITE (Core Zone)**

**3.8.4.1. Flora of Proposed Project Site**

S.No.	Scientific Name	Common Name	Family
1	<i>Azadirachta indica</i>	Neem	Meliaceae
2	<i>Dalbergia sissoo</i>	Shisham	Fabaceae
3	<i>Phoenix dactylifera</i>	Date palm	Arecaceae
4	<i>Ficus virens</i>	Pilkhan	Moraceae
5	<i>Vachellia nilotica</i>	Kikar	Fabaceae
6	<i>Syzygium cumini</i>	Jamun	Myrtaceae
The above said tree species will not be felling during course of construction			

The above said tree species will not be felling during course of construction

**3.8.4.2. Fauna of Proposed Project Site**

**Table 3.28: List of Birds reported from Core Zone**

S. No.	Common Name	Species Name	IUCN Status	Schedule According to WPA,1972	Schedule According to WPA,2022
<b>Charadriidae</b>					
1.	Red-wattled Lapwing	<i>Vanellus indicus</i>	LC	IV	II
<b>Corvidae</b>					
2.	House Crow	<i>Corvus splendens</i>	LC	V	-
3.	Black Drongo	<i>Dicrurus macrocercus</i>	LC	IV	II
<b>Muscicapidae</b>					
4.	Indian Robin	<i>Saxicoloides fulicata</i>	LC	IV	II
<b>Passeridae</b>					
5.	House Sparrow	<i>Passer domesticus</i>	LC	IV	II
<b>Pycnonotidae</b>					
6.	Red-vented Bulbul	<i>Pycnonotus cafer</i>	LC	IV	II
<b>Sylviidae</b>					
7.	Jungle Babbler	<i>Turdoides striatus</i>	LC	IV	II



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

75

**Table 3.29: List of Mammals reported from Core Zone**

S. No.	Common Name	Scientific Name	Status According to WPA,1972	Status According to WPA,2022	Status as per IUCN
1	Stripped squirrel	<i>Funamnilulus pennanti</i>	Sch. IV	-	LC
2	House rat	<i>Rattus rattus</i>	Sch. V	-	LC

**Table3.30: List of Reptiles reported from Core Zone**

S. No.	Common Name	Scientific Name	Status According to WPA,1972	Status According to WPA,2022	Status as per IUCN
1.	House Lizard	<i>Hemidactylus flaviviridis</i>	Sch. IV	-	LC
2.	Common Garden Lizard	<i>Calotesver sicolor</i>	Sch. IV	-	LC

**Floral Diversity in Buffer Zone (10 km radius of cement plant)**

**Table 3.31: Flora found in Buffer Zone**

S. No.	Botanical Name	Common Name	Family
<b>Trees</b>			
1.	<i>Acacia leucophloea</i>	Harmo	Fabaceae
2.	<i>Acacia nilotica</i>	Desibaval	Fabaceae
3.	<i>Aegle marmelos</i>	Beal	Rutaceae
4.	<i>Albizia lebbeck</i>	Siras	Fabaceae
5.	<i>Albizia procera</i>	Kala Siras	Fabaceae
6.	<i>Azadirachta indica</i>	Limdo	Meliaceae
7.	<i>Bauhinia variegata</i>	Kachnar	Fabaceae
8.	<i>Cassia fistula</i>	Garmalo	Caesalpiaceae
9.	<i>Cassia siamea</i>	Kesia	Fabaceae
10.	<i>Capparis decidua</i>	Karir	Capparaceae
11.	<i>Cordia dichotoma</i>	Gundo	Boraginaceae
12.	<i>Dalbergia sissoo</i>	Shisham	Fabaceae
13.	<i>Emblica officinalis</i>	Amla	Euphorbiaceae



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

76

14.	<i>Ficus benghalensis</i>	Vad	Moraceae
15.	<i>Ficus racemosa</i>	Umro	Moraceae
16.	<i>Ficus religiosa</i>	Piplo	Moraceae
17.	<i>Jacaranda mimosifolia</i>	Jacaranda	Bignoniaceae
18.	<i>Kigelia pinnata</i>	Kigelia	Bignoniaceae
19.	<i>Mangifera indica</i>	Aam	Anacardiaceae
20.	<i>Melia azedarach</i>	Bakayan	Meliaceae
21.	<i>Moringa oleifera</i>	Mithosaragavo	Moringaceae
22.	<i>Phoenix sylvestris</i>	Khajur	Arecaceae
23.	<i>Pithecellobium dulce</i>	Jungle jalebi	Fabaceae
24.	<i>Polyalthia longifolia</i>	Ashoka	Annonaceae
25.	<i>Pongamia pinnata</i>	Karanj, Kanji	Fabaceae
26.	<i>Prosopis cineraria</i>	Khijdo	Fabaceae
27.	<i>Prosopis juliflora</i>	Gando baval	Fabaceae
28.	<i>Syzygium cumini</i>	Jambu	Myrtaceae
29.	<i>Tectona grandis</i>	Sag	Verbenaceae
30.	<i>Tamarindus indica</i>	Imli	Fabaceae
31.	<i>Terminalia arjuna</i>	Arjunsad	Combretaceae
32.	<i>Ziziphus mauritiana</i>	Bor	Rhamnaceae
33.	<i>Zizyphus xylopyra</i>	Ghatbor	Rhamnaceae
34.	<i>Adhatoda vasica</i>	Adulsa	Acanthaceae
35.	<i>Annona squamosa</i>	Sitafal	Annonaceae
<b>Shrubs &amp; Herbs</b>			
36	<i>Argemone mexicana</i>	Pila Dhatura	Papaveraceae
37	<i>Calotropis gigantea</i>	Shivark, Akdo	Apocynaceae
38	<i>Calotropis procera</i>	Mudar	Asclepiadaceae
39	<i>Ipomoea fistulosa</i>	Beshram	Convolvulaceae
40	<i>Lantana camara</i>	Lantana	Verbenaceae
41	<i>Cassia tora</i>	Puwad, Panwar	Fabaceae
42	<i>Aloe vera</i>	Gwarpatha	Liliaceae



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

77

43	<i>Chenopodium album</i>	Goosfoot	Amaranthaceae
44	<i>Nyctanthes arbortristis</i>	Tamat, Harsingar	Oleaceae
45	<i>Opuntia dillenii</i>	Opuntia	Cactaceae
46	<i>Datura stramonium</i>	Dhatura	Solanaceae
47	<i>Parthenium hysterophorus</i>	Gajar Ghaas	Asteraceae
48	<i>Tephrosia purpurea</i>	Sarpankha	Fabaceae
49	<i>Tribulus terrestris</i>	Gokhru	Zygophyllaceae
50	<i>Crotalaria juncea</i>	Indian Hemp	Fabaceae
51	<i>Euphorbia neriifolia</i>	Thor	Euphorbiaceae
52	<i>Nerium oleander</i>	Kaner- Red	Apocynaceae
53	<i>Cascabela thevetia</i>	Kaner -Yellow	Apocynaceae
54	<i>Hibiscus rosa sinensis</i>	Gudhal	Malvaceae
<b>Climbers</b>			
55	<i>Asparagus racemosus</i>	Shatavari	Asparagaceae
56	<i>Cuscuta reflexa</i>	Amarbel	Convolvulaceae



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 3  
DESCRIPTION OF ENVIRONMENT

## Biodiversity Index and IVI of Trees of Buffer zone

S.No.	Common Name	Scientific Name	TEQ 1	TEQ 2	TEQ 3	TEQ 4	TEQ 5	TEQ 6	TEQ 7	TEQ 8	TEQ 9	TEQ 10	Total	D	A	F	R.D %	R.A %	R.F. %	IVI
1	<i>Acacia leucophloea</i>	Harmo	3	0	2	1	2	2	2	1	3	1	17	1.7	1.9	90	2.18	2.19	2.47	6.84
2	<i>Acacia nilotica</i>	Desi baval	5	3	4	5	4	3	5	7	4	5	45	4.5	4.5	100	5.78	5.21	2.75	13.74
3	<i>Aegle marmelos</i>	Beal	2	2	3	2	2	3	0	2	3	4	23	2.3	2.6	90	2.95	2.96	2.47	8.39
4	<i>Albizia lebbek</i>	Siras	1	2	0	1	2	0	4	2	2	0	14	1.4	2.0	70	1.80	2.32	1.92	6.04
5	<i>Albizia procera</i>	Kala Siras	1	0	1	1	0	2	0	1	2	1	9	0.9	1.3	70	1.16	1.49	1.92	4.57
6	<i>Azadirachta indica</i>	Limdo	4	3	2	3	4	5	3	3	5	2	34	3.4	3.4	100	4.36	3.94	2.75	11.05
7	<i>Bauhinia variegata</i>	Kachnar	0	0	1	3	1	0	1	5	1	0	12	1.2	2.0	60	1.54	2.32	1.65	5.51
8	<i>Cassia fistula</i>	Garmalo	1	0	0	2	1	1	2	1	0	1	9	0.9	1.3	70	1.16	1.49	1.92	4.57
9	<i>Cassia siamea</i>	Kesia	2	2	3	1	2	3	4	2	3	3	25	2.5	2.5	100	3.21	2.90	2.75	8.85
10	<i>Capparis decidua</i>	Karir	3	4	3	3	4	5	4	3	6	2	37	3.7	3.7	100	4.75	4.29	2.75	11.78
11	<i>Cordia dichotoma</i>	Gundo	2	1	2	4	3	4	4	5	6	4	35	3.5	3.5	100	4.49	4.05	2.75	11.30
12	<i>Dalbergia sissoo</i>	Shisham	4	3	4	3	4	5	2	3	5	2	35	3.5	3.5	100	4.49	4.05	2.75	11.30
13	<i>Emblica officinalis</i>	Amla	0	1	1	0	2	2	3	0	2	1	12	1.2	1.7	70	1.54	1.99	1.92	5.45
14	<i>Ficus benghalensis</i>	Vad	3	2	3	1	1	4	0	4	2	2	22	2.2	2.4	90	2.82	2.83	2.47	8.13
15	<i>Ficus racemosa</i>	Umro	2	1	1	4	1	1	4	3	0	1	18	1.8	2.0	90	2.31	2.32	2.47	7.10
16	<i>Ficus religiosa</i>	Piplo	1	0	3	2	3	2	4	3	2	1	21	2.1	2.3	90	2.70	2.70	2.47	7.87
17	<i>Jacaranda mimosifolia</i>	Jacaranda	2	3	1	0	2	0	5	4	0	3	20	2.0	2.9	70	2.57	3.31	1.92	7.80
18	<i>Kigelia pinnata</i>	Kigelia	2	2	3	0	2	3	0	2	3	3	20	2.0	2.5	80	2.57	2.90	2.20	7.66
19	<i>Mangifera indica</i>	Aam	2	3	1	5	4	0	3	2	2	6	28	2.8	3.1	90	3.59	3.60	2.47	9.67
20	<i>Melia azedarach</i>	Bakayan	1	2	3	3	2	1	4	2	2	0	20	2.0	2.0	100	2.57	2.32	2.75	7.63
21	<i>Moringa oleifera</i>	Mithosaragavo	2	0	0	1	2	4	1	2	0	1	13	1.3	1.9	70	1.67	2.15	1.92	5.74
22	<i>Phoenix sylvestris</i>	Khajur	2	2	1	0	2	1	2	1	0	1	12	1.2	1.5	80	1.54	1.74	2.20	5.48



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

79

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 3  
DESCRIPTION OF ENVIRONMENT

23	<i>Pithecellobium dulce</i>	Jungle jalebi	0	1	3	1	2	0	0	2	2	3	14	1.4	1.8	80	1.80	2.03	2.20	6.02
24	<i>Polyalthia longifolia</i>	Ashoka	2	2	3	1	2	3	4	2	3	3	25	2.5	2.5	100	3.21	2.90	2.75	8.85
25	<i>Pongamia pinnata</i>	Karanj, Kanji	1	2	3	3	2	1	4	2	2	0	20	2.0	2.2	90	2.57	2.57	2.47	7.61
26	<i>Prosopis cineraria</i>	Khijdo	3	4	5	2	6	5	2	2	5	3	37	3.7	3.7	100	4.75	4.29	2.75	11.78
27	<i>Prosopis juliflora</i>	Gando baval	5	6	5	4	2	4	3	4	5	4	42	4.2	4.2	100	5.39	4.87	2.75	13.00
28	<i>Syzygium cumini</i>	Jambu	1	2	2	3	1	2	5	4	3	2	25	2.5	2.5	100	3.21	2.90	2.75	8.85
29	<i>Tamarindus indica</i>	Imli	2	2	0	1	2	3	4	2	3	3	22	2.2	2.4	90	2.82	2.83	2.47	8.13
30	<i>Terminalia arjuna</i>	Arjunsad	3	0	6	1	1	0	1	3	3	4	22	2.2	2.8	80	2.82	3.19	2.20	8.21
31	<i>Ziziphus mauritiana</i>	Bor	2	4	3	4	3	2	4	5	2	4	33	3.3	3.3	100	4.24	3.82	2.75	10.81
32	<i>Zizyphus xylopyra</i>	Ghatbor	4	4	2	0	3	1	2	1	3	2	22	2.2	2.4	90	2.82	2.83	2.47	8.13
33	<i>Adhatoda vasica</i>	Adulsa	2	2	3	1	2	3	4	2	3	3	25	2.5	2.5	100	3.21	2.90	2.75	8.85
34	<i>Annona squamosa</i>	Sitaphal	1	2	0	0	1	2	3	0	0	2	11	1.1	1.6	70	1.41	1.82	1.92	5.16
<b>Total</b>			<b>71</b>	<b>67</b>	<b>77</b>	<b>66</b>	<b>77</b>	<b>77</b>	<b>93</b>	<b>87</b>	<b>87</b>	<b>77</b>	<b>779</b>	<b>77.9</b>	<b>86.3</b>	<b>2980</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>281.87</b>



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

80

**Result**

The IVI is calculated for the trees of the study area *Acacia nilotica* (13.74), *Prosopis juliflora* (13.0), *Capparis decidua* & *Prosopis cineraria* (11.78), *Azadirachta indica* (11.5) are the major tree having the maximum IVI in the study area. The Biodiversity Index (Shannon Index) is come out to be 3.44 from PAST4.03 software and is at good level. There are no rare, endangered, threatened and endemic floral species found in the study area.

**B. Faunal Diversity of Buffer Zone**

**Table3.32: List of Fauna in buffer zone**

S. No.	Common Name	Scientific Name	Status According to WPA,1972	Status According to WPA,2022	Status as per IUCN
<b>Mammals</b>					
1	House rat	<i>Rattus rattus</i>	Schedule IV		LC
2	Indian Hare	<i>Lepus nigricollis</i>	Schedule IV	Schedule II	LC
3	Five Stripped squirrel	<i>Funamnilulus pennanti</i>	Schedule IV	-	LC
4	Nilgai	<i>Boselaphus tragocamelus</i>	Schedule III	Schedule II	LC
5	common Langur	<i>Semnopithecus entellus</i>	Schedule II	Schedule II	LC
6	Indian field mouse	<i>Mus booduga</i>	Schedule V	-	LC
7	Common Mongoose	<i>Herpestes edwardsi</i>	Schedule IV	Appendix III	LC
<b>Amphibians</b>					
1	Indian pond frog	<i>Phrynomderma hexadactylum</i>	Schedule V	Schedule II	LC
2	Common Indian Toad	<i>Duttaphrynus melanostictus</i>	Not Listed	Not Listed	LC
3	Indian Bull Frog	<i>Hoplobatrachus tigerinus</i>	Schedule IV	Schedule II	LC
4	Common Frog	<i>Rana tigrina</i>	Schedule IV	Schedule II	LC
<b>Reptiles</b>					
1	House gecko	<i>Hemidactylus flaviviridis</i>	Common		LC
2	Common garden lizard	<i>Calotes versicolor</i>	Lot Listed	-	LC
3	Brahminy skink	<i>Mabuya carinata</i>	Common	-	LC
4	Indian Rat Snake	<i>Ptyas mucosus</i>	Schedule-IV	Appendix II	LC
<b>Avi fauna</b>					
1	Common Babbler	<i>Argya caudata</i>	Schedule IV	Schedule II	LC
2	Jungle Babbler	<i>Argya striata</i>	Schedule IV	Schedule II	LC



3	Blue-tailed bee-eater	<i>Merops philippinus</i>	Schedule IV	Schedule II	LC
4	Small Green Bee-eater	<i>Merops orientalis</i>	Schedule IV	Schedule II	LC
5	Red-Vented Bulbul	<i>Pycnonotus cafer</i>	Schedule IV	Schedule II	LC
6	House Crow	<i>Corvus splendens</i>	Schedule IV	-	LC
7	Cattle Egret	<i>Bubulcus ibis</i>	Schedule IV	Schedule II	LC
8	Egret little	<i>Egretta garzetta</i>	Schedule IV	Schedule II	LC
9	Indian Pond Heron	<i>Ardeola grayii</i>	Schedule IV	Schedule II	LC
10	Hoopoe	<i>Upupa epops</i>	Schedule IV	Schedule II	LC
11	Red naped Ibis	<i>Pseudibis papillosa</i>	Schedule IV	Schedule II	LC
12	Black headed ibis	<i>Threskiornis melanocephalus</i>	Schedule IV	Schedule II	LC
13	Common Iora	<i>Aegithina tiphia</i>	Schedule IV	Schedule II	LC
14	Asian Koel	<i>Eudynamys scolopaceus</i>	Schedule IV	Schedule II	LC
15	Red-wattled Lapwing	<i>Vanellus indicus</i>	Schedule IV	Schedule II	LC
16	Yellow-wattled Lapwing	<i>Vanelius malabaricus</i>	Schedule IV	Schedule II	LC
17	Common Myna	<i>Acridotheres tristis</i>	Schedule IV	Schedule II	LC
18	Rose-ringed Parakeet	<i>Psittacula krameri</i>	Schedule IV	Schedule II	LC
19	Grey francolin	<i>Francolinus pondicerianus</i>	Schedule IV	Schedule II	LC
20	<b>Peafowl</b>	<b><i>Pavo cristatus</i></b>	<b>Schedule I</b>	<b>Schedule I</b>	<b>LC</b>
21	Blue rock Pigeon	<i>Columba livia</i>	Schedule IV	Schedule II	LC
22	Common Quail	<i>Coturnix coturnix</i>	Schedule IV	Schedule II	LC
23	Indian Robin	<i>Copsychus fulicatus</i>	Schedule IV	Schedule II	LC
24	House Sparrow	<i>Passer domesticus</i>	Schedule IV	Schedule II	LC
25	Eurasian Collared-Dove	<i>Streptopelia decaocto</i>	Schedule IV	Schedule II	LC
26	White-throated Kingfisher	<i>Halcyon smymensis</i>	Schedule IV	Schedule II	LC
27	Black Drongo	<i>Dicrurus macrocercus</i>	Schedule IV	Schedule II	LC
28	Kingfisher	<i>Alcedo atthis</i>	Schedule IV	Schedule II	LC
29	Common Indian	<i>Caprimulgus asiaticus</i>	Schedule IV	Schedule II	LC





	Nightjar				
30	Baya weavers	<i>Ploceus philippinus</i>	Schedule-IV	Schedule II	LC
31	Rock Bush Quail	<i>Perdica argoondah</i>	Schedule-IV	Schedule II	LC

Nearest Tourist Places	None within the study area.
Defense Installations	None within the study area.
Archaeological Sites	None within the study area.
Eco-sensitive Zones	No National Park, Wildlife Sanctuary, Biosphere Reserve Tiger/ Elephant Reserve, Wildlife Corridor etc. is situated within 10Km radius of the Project site.
Reserved/ Protected Forest	None within 10 km from project site

### 3.10 SOCIO-ECONOMIC ENVIRONMENT

#### 3.10.1 OBJECTIVES

The broad objectives of the socio-economic impact assessment are:

- Describing/Assessing baseline environmental and socio-economic conditions of the people living in the study area.
- To assess the impact on socio-economic environment due to the project concerned.
- To evaluate the community development measures proposed to be taken up by the Project Proponent, if any.
- To suggest community development measures that needs to be taken for the study area with stakeholder engagement.

#### 3.10.2 METHODOLOGY

S. No.	Collection of Data	With Effect From
<b>Secondary Sources</b>		
I	Census of India, 2011	Latest Update available from 2012 & Extrapolated up to 2024
II	Minimum Wages Act , 1948	Latest Update available dated April 1, 2016 to September 30, 2016
III	RFCTLARR Act 2013	Not applicable
IV	www.archaeologyharyana.nic.in	The State Monuments list of Haryana Latest update as on 5 <sup>th</sup> September, 2023.
<b>Primary Sources</b>		Method / Technique
Field observations		Transect walk
Extensive site specific survey		Non-Probability Random Sampling using Questionnaire Method Target sample of people interviewed
Manner and the order of Questions		Open Questions



Survey period	1 Sub-round / per monitoring season
Type	Rural-Urban Mix frame Survey

### 3.10.3 DEMOGRAPHIC STRUCTURE OF THE STUDY AREA

#### 3.10.3.1 Population in Core Zone

No population in the core zone.

#### 3.10.3.2 Population in Buffer Zone

The study area comprises of 66 villages in the (10.0 Km) of the study area. The total population of the study area is 4,80,539 accommodating 83,592 in households with an average household's size of approx. 6 members per family.

#### 3.10.3.3 Gender Distribution

The males in the study area constitute 53.25 % and females constitute 46.75 %. The gender ratio is 877 in the study area, lower as compared to the district Palwal 879 as per the Census of India, 2011 & extrapolated up to 2024.

#### 3.9.3.4 Literacy Profile

The average literacy rate of the study area is 65.33% lower than the 75.55% of district Palwal as per Census of India, 2011. The male literacy is 73.53% with respect to male population and the female literacy is 55.99% with respect to female population. There is a high literacy gap of 17.54 % between the two genders.

#### 3.9.3.5 Occupation Profile

Occupational structure of the workforce indicates the economic activity. The occupational patterns include cultivators, agricultural labour, and household industry workers. The employment rate in the 10.0 Km periphery for main workers, marginal workers and non-workers are as follows:

The Main workers constitute 22.05%; the male worker population is (88.33%) more than seven times of the female worker (11.66%) with respect to Total Main workers.

The Marginal workers constitute 6.19% with the male workers of 8.24% and female workers of 3.86% with respect to Total Male & Female Population.



The Non Workers constitute 71.74 % and distribution of men (55.16%) and women (90.63%) workers with respect to Total Male & Female Population.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 3  
DESCRIPTION OF ENVIRONMENT

Table-3.30: Demographic Profile of the study area

S. No.	Villages	Household	Population			Literacy			Main Worker			Marginal Worker			Non-worker		
			Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>0 - 2 KM</b>																	
1	Asoati	1045	5945	3180	2765	3747	2339	1408	1311	1227	84	201	180	21	4433	1773	2660
2	Devli	448	2958	1575	1383	1979	1210	769	755	569	186	209	169	40	1994	837	1157
3	Jataula	243	1423	753	670	841	528	313	226	219	7	80	78	2	1117	456	661
4	Pirthla	1227	7009	3795	3214	4507	2853	1654	1705	1573	132	223	184	39	5081	2038	3043
5	Tatarpur	185	1018	575	443	698	438	260	219	215	4	27	27	0	772	333	439
<b>2 - 4 KM</b>																	
6	Badraula	508	2970	1551	1419	2060	1191	869	722	672	50	66	38	28	2182	841	1341
7	Dundsa	255	1543	829	714	1028	657	371	324	294	30	57	46	11	1162	489	673
8	Gadhuri	313	1639	880	759	987	636	351	147	140	7	282	247	35	1210	493	717
9	Pahladpur	112	662	339	323	396	239	157	15	15	0	169	150	19	478	174	304
10	Pyala		<b>Data Not Available</b>														
<b>4 - 6 KM</b>																	
11	Amru	289	1711	906	805	1148	697	451	308	293	15	112	86	26	1291	527	764
12	Bhurja	225	1244	659	585	719	449	270	208	195	13	160	135	25	876	329	547
13	Chhaprola	407	2411	1265	1146	1447	874	573	422	381	41	158	149	9	1831	735	1096
14	Dadula		<b>Data Not Available</b>														
15	Digh	770	4291	2317	1974	2650	1623	1027	649	599	50	635	482	153	3007	1236	1771
16	Harphali	304	1762	940	822	1107	686	421	313	273	40	219	149	70	1230	518	712
17	Mandkol	472	2808	1479	1329	1951	1128	823	760	631	129	159	28	131	1889	820	1069
18	Nagla Jogian	357	1956	1049	907	1220	767	453	341	323	18	135	119	16	1480	607	873
19	Nangla Bhiku	187	1126	599	527	736	453	283	271	235	36	14	8	6	841	356	485
20	Patli Kalan	40	252	144	108	172	115	57	73	69	4	58	0	58	121	75	46
21	Sagarpur	513	2918	1554	1364	1982	1222	760	636	608	28	65	57	8	2217	889	1328
22	Sahapur Khurd	147	838	452	386	540	351	189	193	185	8	21	15	6	624	252	372
23	Sikabdarpu r		<b>Data Not Available</b>														
24	Sikri	1035	5320	2816	2504	3481	2089	1392	1343	1220	123	114	75	39	3863	1521	2342
<b>6 - 8 KM</b>																	



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

160

86

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 3  
DESCRIPTION OF ENVIRONMENT

S. No.	Villages	Household	Population			Literacy			Main Worker			Marginal Worker			Non-worker		
			Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
25	Aghwanpur	351	1964	1039	925	1206	743	463	470	427	43	84	56	28	1410	556	854
26	Alapur	374	2206	1170	1036	1426	879	547	359	332	27	175	155	20	1672	683	989
27	Badraon	600	3171	1672	1499	1634	1056	578	556	523	33	217	202	15	2398	947	1451
28	Bhanakpur	531	3080	1663	1417	1948	1255	693	811	740	71	80	29	51	2189	894	1295
29	Dhatir	1388	8447	4513	3934	5561	3427	2134	2054	1860	194	341	169	172	6052	2484	3568
30	Fatehpur Biloch	1790	10156	5446	4710	6689	3988	2701	2522	2256	266	417	271	146	7217	2919	4298
31	Ferozepur	710	4122	2241	1881	2540	1596	944	828	721	107	244	219	25	3050	1301	1749
32	Harphola	176	945	505	440	646	388	258	233	225	8	23	22	1	689	258	431
33	Jajru	468	2677	1424	1253	1866	1118	748	612	554	58	99	77	22	1966	793	1173
34	Janauli	1200	6752	3718	3034	4275	2817	1458	1513	1438	75	156	127	29	5083	2153	2930
35	Kakripur	184	1060	566	494	719	439	280	274	256	18	3	1	2	783	309	474
36	Khandhauri		Data Not Available														
37	Ladhauri	387	2225	1199	1026	1502	921	581	515	490	25	114	44	70	1596	665	931
38	Mahola	279	1625	872	753	1024	654	370	360	332	28	78	66	12	1187	474	713
39	Malerna	359	2035	1085	950	1413	846	567	462	432	30	67	44	23	1506	609	897
40	Manduri	281	1932	1044	888	1155	743	412	308	276	32	165	157	8	1459	611	848
41	Patli Khurd	318	1982	1054	928	1233	753	480	406	391	15	404	105	299	1172	558	614
42	Sahupura	194	1090	578	512	667	436	231	402	272	130	13	9	4	675	297	378
43	Sehrala	322	1936	1027	909	1291	796	495	849	502	347	2	1	1	1085	524	561
44	Shahpur Kalan		Data Not Available														
45	Sunper	400	2353	1225	1128	1585	956	629	558	518	40	43	37	6	1752	670	1082
<b>8 -10 KM</b>																	
46	Alawalpur	1726	10093	5385	4708	6432	4011	2421	2435	2175	260	771	271	500	6887	2939	3948
47	Allika	699	4106	2205	1901	2688	1690	998	897	876	21	193	178	15	3016	1151	1865
48	Aterna	282	1791	936	855	749	518	231	490	338	152	39	20	19	1262	578	684
49	Chandpur	446	2766	1462	1304	1623	1023	600	582	553	29	132	106	26	2052	803	1249
50	Dehlaka	101	650	362	288	419	284	135	220	206	14	0	0	0	430	156	274
51	Dungarpur	55	377	201	176	268	163	105	86	85	1	13	10	3	278	106	172

ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

165

87

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 3  
DESCRIPTION OF ENVIRONMENT

S. No.	Villages	Household	Population			Literacy			Main Worker			Marginal Worker			Non-worker		
			Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
52	Firozpur Kalan	346	2253	1217	1036	1524	921	603	419	401	18	146	102	44	1688	714	974
53	Ghagot	417	2707	1487	1220	1083	757	326	158	145	13	721	454	267	1828	888	940
54	Gugera	297	1653	877	776	1039	660	379	322	286	36	250	160	90	1081	431	650
55	Jawan	946	5493	2867	2626	3551	2169	1382	1066	1014	52	319	185	134	4108	1668	2440
56	Kakrali	156	948	522	426	590	378	212	172	159	13	8	2	6	768	361	407
57	Kalwaka	550	3284	1750	1534	1501	965	536	449	410	39	582	338	244	2253	1002	1251
58	Karna	391	2441	1284	1157	1594	1000	594	299	281	18	307	261	46	1835	742	1093
59	Khajurka	301	1922	1044	878	1225	799	426	283	266	17	406	226	180	1233	552	681
60	Palwal	41461	2365	1255	1109	1578	9233	6547	5286	4623	662	144	105	3899	16920	6878	1004
61	Palwali	313	1807	997	810	1169	734	435	376	317	59	56	47	9	1375	633	742
62	Panehra Kalan	599	3382	1774	1608	2245	1371	874	752	629	123	112	91	21	2518	1054	1464
63	Panehra Khurd	598	3346	1787	1559	2199	1334	865	777	543	234	276	224	52	2293	1020	1273
64	Patli Khurd	318	1982	1054	928	1233	753	480	406	391	15	404	105	299	1172	558	614
65	Sikrona	241	1390	748	642	909	555	354	210	197	13	100	92	8	1080	459	621
66	Teharki	399	2268	1224	1044	1453	914	539	509	492	17	49	47	2	1710	685	1025
<b>Total</b>		<b>69718</b>	<b>4007</b>	<b>2134</b>	<b>1873</b>	<b>2618</b>	<b>1569</b>	<b>1049</b>	<b>8840</b>	<b>7809</b>	<b>103</b>	<b>248</b>	<b>175</b>		<b>28754</b>	<b>117</b>	<b>169</b>
<b>Total Population Extrapolated up to 2024</b>		<b>83592</b>	<b>83</b>	<b>17</b>	<b>66</b>	<b>48</b>	<b>38</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>09</b>	<b>39</b>	<b>98</b>	<b>7241</b>	<b>4</b>	<b>728</b>	<b>816</b>
<b>Total Population Extrapolated up to 2024</b>		<b>83592</b>	<b>4805</b>	<b>2558</b>	<b>2246</b>	<b>3139</b>	<b>1881</b>	<b>1257</b>	<b>1059</b>	<b>9363</b>	<b>123</b>	<b>297</b>	<b>211</b>		<b>34476</b>	<b>141</b>	<b>203</b>
<b>Total Population Extrapolated up to 2024</b>		<b>83592</b>	<b>39</b>	<b>87</b>	<b>52</b>	<b>56</b>	<b>69</b>	<b>87</b>	<b>92</b>	<b>1</b>	<b>60</b>	<b>82</b>	<b>00</b>	<b>8682</b>	<b>5</b>	<b>156</b>	<b>609</b>

\*Source: Census of India, 2011 & Extrapolated up to 2024.



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

168

88

**3.10.4 SOCIAL INFRASTRUCTURE**

The proposed project is situated at Kila No. 4 To 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana. Local works is employed by the industry in proposed project. Further, indirect means of earnings already created in the area of contractual jobs, vehicle driving, shops, construction etc. Therefore, this project is/will brought a positive impact on the adjoining society.

**Basic Amenities in the study area**

At the project site first aid centre will be set up. Industry is providing drinking water and other sanitary facilities to the workers. Canteen, washrooms, Guest houses are established for the workers.

**Table 3.31: Socio-economic snapshot of nearest habitation 5.0 km**

Particular	Distance (Km)	Direction
	(From Project Boundary)	
<b>Hospitals</b>		
Nobel Charitable Hospital - GT Road, Prithla	1.16 Km	W
ESI Dispansary Prithla	1.67 Km	WNW
Shri Hari Hospital, Tatarpur	1.67 Km	WNW
<b>Schools</b>		
Govt Primary School Tatarpur	0.48 Km	ESE
Govt. Primary School Jatola	0.58 Km	NNE
BDM Public School, Tatarpur	0.66 Km	E
GPS Prithla	1.27 Km	W
Govt.Girl High School Prithla	1.40 Km	W
Chotu Ram Public School Prithla	1.60 Km	WNW
Govt Girls Sr. Sec. School, Prithla	1.70 Km	WNW

**Field Survey**

Transportation was available in all the aspects	Bus Govt. Roadways / Private - Tractors, Scooters, Motor Cycles, (Public transport available). Bus Stop 0.43 km SE, Tatarpur Bus Stop.
Roads were observed to be	Main roads <i>Pucca</i> , Painted & Cemented connects to NH - 2 Internal roads are also cemented roads.
Electricity Supply has been	Regular with periodic power cuts.
Nearest dwellings :	Habitation is Tatarpur 0.43 km towards SE direction
Main Food	Chapatti, Sabji, Dal
Festivals	Holi, Diwali, Gangore, Rakshabandhan.
Caste/ Religion	The principal communities are the Jaat, Chauhans, Gujjar, <a href="#">Brahmins</a> , Muslims , Jains etc.

**Source: field survey and observations.**

### 3.10.5 Socio-economic conditions of the study region (Primary data)

A detailed primary survey was undertaken to assess the socio-economic conditions in the study region. The method of recall was employed by using a questionnaire. Depending on the geographical location of the village with respect to the proposal project site and its activities, 08 villages have been identified by random sampling. On the geographical location of the village with respect to the proposal project site and its activities, 08 villages have been identified by random sampling. A sample size of 15 was proportionately distributed across identified villages by taking into consideration the households of the villages. The random sampling method was followed to identify the target population to be surveyed. Household size, house status, educational level, water and sanitation facilities, employment opportunities, health facilities, awareness of the project and environmental issues associated with it, etc. were addressed in the survey. The villages surveyed and the survey results are summarized below. :

- Asoati
- Devli
- Jataula
- Pirthla
- Tatarpur
- Badraula
- Dundsa





- Gadhpuri

**Household size**

The household size is predominantly in the range of 4-8 in most of the sampled villages. The average household size works out to be five members per family. However, households smaller than six are marginal.

**Educational level**

Predominantly, households have pursued primary and secondary education. Very few dominate higher education. Every village has primary school and Palwal town has higher education,

**House status**

A large number of houses are built with RCC roof construction. However, Pirthla has a relatively better housing facility.



**Water and sanitation facilities**



Head pumps and bore wells are the primary sources of drinking water in the sampled villages. The water is used without any treatment. Sanitation facilities are missing in some of the villages. However, Pirthla, Tatarpur, and Jataula villages have good sanitation facilities. The mosquito menace is prevalent owing to poor sanitary conditions.

### **Cropping pattern**

The major *crops* of the *area* are maize and jawar in the kharif season and wheat and mustard in the rabi season. Most farmers can only grow one crop per year during the Kharif season, which is weather dependent. The farmers are using local varieties of seeds during sowing. Also grown are vegetable crops like brinjal, onion, green chillies, potato, cauliflower, carrots, green peas, etc.

### **Earning members**

The percentage of the earning members in the sampled households in the range of 1-2 is more than 55%. Unemployment is prevalent in the study region.

### **Source of income**

Industrial is the main source of income in all the villages. About 70% of the sampled villages are dependent on industrial, commercial, or petty shops. 30% of the households sampled work in Agriculture. There is very little work in the service sector. Cattle farms are also extensively seen in some of the villages.

### **Income level**

The income levels of the occupants were observed to be in the range of Rs. 10,000 to Rs. 15,000 per month. The average income levels of the farmers are comparatively low at Rs. 8,000 per month. The income status of agricultural and other laborers is very poor, with an average of Rs. 5,000 per month and even less. The pattern of income indicates industrial sectors spend more money and are both economically and socially better placed than farmers and laborers.

### **Health Facilities**

Most of the villages have medical facilities at PHC. However, the other villages have the same facility at a distance of about 3-5 km. The village's area is very near to Pirthla town,



which has all medical amenities. Most of the sampled villages are dependent on PHC, Palwal, In critical and emergency case, the villagers are sent to Palwal, for better medical facilities.



**Awareness of the project: -**

All the respondents are aware of the proposed project of Jyoti Strips Private Limited and its location.

**3.10.6 SUMMARY**

- The socio-economic expectations of the villagers in the surrounding area have minimalistic needs as the sources of employment and earnings are not significant. The plant activity will provide year-round employment to locals and contribute to the area's economic status.
- Attached Toilets in the housing structures found in most of the villages in the study area.
- Higher Education facilities for Girls are available.
- The villagers believe that, for economic growth and sustainable development, it is important to protect the environment and harmonies business activities with it. Villagers see a symbiotic relationship between the environment and business development.
- Several questions were raised regarding the adequacy of the safety precautions taken by the plant activity operations. The incumbents replied that they were indifferent towards the plant's activity. The majority of the incumbents accepted that plant activity has never harmed them.

\*\*\*\*\*



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

**CHAPTER- 4**  
**ANTICIPATED ENVIRONMENTAL IMPACT AND**  
**MITIGATION MEASURES**



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## CHAPTER- 4

### INDEX

4.1	GENERAL.....	95
4.1.1	EVALUATION OF IMPACTS.....	96
4.2	IMPACTS DURING CONSTRUCTION PHASE.....	98
4.2.7	SITE PREPARATION / ERECTION/ FABRICATION/ CONSTRUCTION STAGE IMPACT.....	98
4.2.1.1	IMPACT ON LAND USE.....	98
4.2.1.2	IMPACT ON SOIL.....	98
4.2.1.3	IMPACT ON WATER QUALITY.....	99
4.2.1.5	IMPACT ON AIR QUALITY.....	100
4.2.1.5	IMPACT ON NOISE LEVELS.....	101
4.2.1.6	IMPACT ON TERRESTRIAL ECOLOGY.....	101
4.2.7	DEMOGRAPHY AND SOCIO-ECONOMY.....	102
4.3	IMPACT DURING OPERATIONAL PHASE.....	102
4.3.1	AIR ENVIRONMENT.....	102
4.3.1.1	Impact on Air Quality.....	104
4.4	NOISE ENVIRONMENT.....	112
4.4.1	IMPACT ON NOISE.....	112
4.4.2	Noise Quality Impact Predictions.....	112
4.5	IMPACT & PREDICTION DUE TO TRAFFIC STUDY IN OPERATION PHASE.....	114
4.6	LAND ENVIRONMENT.....	115
4.6.1	Source.....	115
4.6.2	Impact Prediction & Mitigation Measures.....	115
4.6.3	Solid and Hazardous Waste.....	116
4.7	Water Environment.....	116
4.7.1	Source.....	11
4.7.2	Impact Prediction & Mitigation Measures.....	116
4.7.3	WASTE WATER TREATMENT.....	117
4.7.6	Impact on Drainage.....	121
4.8	BIOLOGICAL ENVIRONMENT.....	121
4.8.1	Impact on Biological Environment.....	121
4.9	SOCIO ECONOMIC IMPACT MATRIX.....	125



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

<b>4.9.1</b>	<b>Impact on Community Demographics.....</b>	<b>125</b>
<b>4.9.2</b>	<b>Impact on Employment.....</b>	<b>127</b>
<b>4.9.3</b>	<b>Impact on Economic Diversity and Vitality .....</b>	<b>128</b>
<b>4.9.4</b>	<b>Impact through Industrial Activity.....</b>	<b>129</b>
<b>4.9.5</b>	<b>Health &amp; Related Impacts .....</b>	<b>129</b>
<b>4.9.6</b>	<b>Socio Economic Parameter Importance Impact Unit Profile .....</b>	<b>130</b>
<b>4.9.7</b>	<b>Inference of Socio Economic Parameter Importance Impact Unit profile.....</b>	<b>132</b>
<b>4.9.8</b>	<b>Socio - Economic Impact.....</b>	<b>132</b>
<b>4.10</b>	<b>EVALUATION FOR ALTERNATIVE SCENARIOS.....</b>	<b>133</b>
<b>4.10.1</b>	<b>EIA WITHOUT EMP.....</b>	<b>133</b>
<b>4.11</b>	<b>IMPACT ON OCCUPATIONAL HEALTH &amp; SAFETY IN OPERATION PHASE.....</b>	<b>136</b>

\*\*\*\*\*



APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 4  
ANTICIPATED ENVIRONMENTAL IMPACT  
AND MITIGATION MEASURES

## CHAPTER- 4

### ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

#### 4.1 GENERAL

This chapter deals with identification and appraisal of various impacts due to the proposed Cold Rolling Mill Complex with Galvanizing and colour coating line of Jyoti Strips Private Limited. Prediction of impacts is the most important component in the Environmental Impact Assessment studies. Several scientific techniques and methodologies are available to predict impacts of developmental activities on physical, ecological and socio-economic environments. Such predictions are superimposed over the baseline (pre-project) status of environmental quality to derive the ultimate (post-project) scenario of environmental conditions. The prediction of impacts helps to minimize the adverse impacts on environmental quality during pre and post project execution. Generally, the environmental impacts can be categorized as either primary or secondary. Primary impacts are those, which are attributed directly by the project and secondary impacts are those, which are indirectly induced and typically include the associated investment and changed patterns of social and economic activities by the proposed actions.

The proposed project activities may cause both direct and indirect environmental impacts on various environmental attributes during pre-operational, operational and post-operational phase. The project is likely to create impact on the environment in two distinct phases: -

- During the construction phase which may be regarded as temporary or short terms;
- During the operation phase which would have long -term effects.

Identification of possible impacts specific to an activity is an important task since this helps in focusing attention upon relevant environmental parameters and relating them with the activities involved. The following parameters are of significance in the Environmental Impact Assessment and are being discussed in detail.

1. Land Environment.
2. Water Environment.
3. Air Environment.
4. Noise Environment.



PROJECT DRAPTEI/A/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX		CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED		
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119		

5. Solid Waste.
6. Biological Environment.
7. Socio-Economic.

## 4.2 IMPACTS DURING CONSTRUCTION PHASE

### 4.2.1. SITE PREPARATION/ ERECTION / FABRICATION / CONSTRUCTION STAGE IMPACT

#### 4.2.1.1 IMPACT ON LAND USE

During the construction phase of the proposed project, some temporary impacts on environment are likely to occur due to:-

S. No.	Aspect	Impact	Mitigation Measures
1.	Material Extraction and Transportation	The excavation of soil and their transportation to the construction site can have implications for land use.	<ul style="list-style-type: none"> <li>➤</li> <li>➤ The excavated soil will be used for leveling and plantation.</li> <li>➤ The temporary kacha road will be developed for internal transportation of excavated soil in dumpers and will be maintained.</li> <li>➤ Transportation routes will be optimized to minimize environmental impact.</li> </ul>
2.	Erosion and Soil Compaction	Soil erosion and compaction. This may have implications for agriculture or natural ecosystems in the area	<ul style="list-style-type: none"> <li>➤ Erosion control measures such as silt fences and erosion-control blankets will be implemented.</li> <li>➤ Disturbed areas will be Re-vegetate promptly to stabilize soil.</li> </ul>
3.	Dust and Noise Pollution	Construction activities can generate dust and noise, impacting the surrounding environment and potentially affecting nearby residential and commercial areas	<ul style="list-style-type: none"> <li>➤ Dust control measures such as water spraying, dust screens, and dust suppressants will be proposed.</li> <li>➤ Noise barriers and insulation where necessary.</li> <li>➤ Use of quieter construction equipment.</li> </ul>





APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 4  
ANTICIPATED ENVIRONMENTAL IMPACT  
AND MITIGATION MEASURES

With taking effective mitigation measures and proper implementation there will not be any significant impact due to construction phase. Apart from localized constructional impacts at the proposed project site, no significant adverse impact on the land in the surrounding area is anticipated.

**4.2.1.2 IMPACT ON SOIL**

Topsoil will be scrapped prior to initiation of earthwork and will be used for plantation purpose.

No vegetation is found on the proposed area except some shrubs. Hence, no vegetation removal is envisaged. Except for local constructional impacts at the proposed site, no significant adverse impact on the soil in the project site as well as in the surrounding area is envisaged.

S. No.	Aspect	Impact	Mitigation Measures
1.	Site Development	Soil Degradation due to unscientifically storage of the soil	Project area is flat in nature. Hence soil loss is negligible. Top Soil will be scrapped and store separately for use in plantation.
2.	Construction of building and foundation work	Unwanted debris and construction material	The debris and left construction material will be disposed off as per Construction and demolition waste rules' 2016 and levelling of the site.
3.	DG set operation for use of construction equipment	Oil Spillage and mixed with soil and degrade the soil quality	It will ensure no spillage of oil on land or soil while transferring the oil. Liner or sheet will spread to avoid contamination of soil.  If any reason, soil get contaminated, it will be sent to TSDF site for proper disposal.
4.	Vegetation removal	Loss of habitat	No vegetation is found on the proposed area except some perennial shrubs.
5.	Unplanned and unscientifically disposed off Solid & Hazardous waste generated	Nuisance created at project site and hazardous for human health and Environment such as on air, water.	Solid & Hazardous waste generated will be disposed off as per norms.
6.	Unscientific disposal of sewage waste water	Untreated sewage water discharge on land during	No sewage water will be discharge on soil as during construction phase as modular



APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 4  
ANTICIPATED ENVIRONMENTAL IMPACT  
AND MITIGATION MEASURES

	construction phase	Toilets will be used.
With taking effective mitigation measures and proper implementation there will not be any significant impact due to construction phase. Apart from localized constructional impacts at the proposed project site, no significant adverse impact on the soil in the surrounding area is anticipated.		

**4.2.1.3 IMPACT ON WATER QUALITY**

Impact on water quality during construction phase are given below:

S. No.	Aspects	Impact	Mitigation Measure
1.	Discharge of domestic waste water (Bathing, washing, and sewage waste water”) from the construction site by labours stationed at the site	Contamination of Ground and Surface water	It will ensure not to discharge domestic waste water and sewage waste water on ground or surface body. Sock pit followed by septic tank will be set-up for disposal of sanitary sewage generated by the work force.
2.	Surface runoff from construction site and labor sheds from project site	Contamination of water bodies if not properly storm water drainage is planned.	Surface run off during rainy season will be collected in to rain water harvesting structure inside the project premises as per drainage under storm water management. Paved surfaces will minimize the storm water runoff volume. Following measure for the storm water management will be adopted. <ol style="list-style-type: none"> <li>1. The run-off from the proposed site to enter the drain/nallah only through designated points.</li> <li>2. The storm water channels based on the contour of the land will be constructed for channelizing the run-off from the site and from the upstream side outside the project site.</li> <li>3. The storm water channels before</li> </ol>



PROJECT DRAPTEI/A/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX		<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED		
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119		

			disposal from the site will be passed through de-siltation traps attached with oil separator.
3.	Oil/ fuel and waste spills; improper debris disposal	Ground and surface water contamination	The contaminated soil will be scraped and will send for treatment and disposal to TSDF site.
4.	Ground water withdrawal	Decline of water table through Ground water abstraction	Ground water will be abstracted for the construction phase after obtaining permission from CGWA. The rain water harvesting pits will be constructed.

The construction equipment will be washed properly only at designated washing area will be monitored. The identified impacts on water during the construction phase will be managed by implementation of proper and effective Environmental Management Plan to minimize the temporary effects by proper conservation and sanitation practices.

The impacts will be temporary and limited to the construction phase only. These measures will ensure that the run-off from the site after development will not have significant impact or chances of flooding or water logging in the stream, within the site or in the downstream areas.

**4.2.1.5 IMPACT ON AIR QUALITY**

S. No.	Aspects	Impact	Mitigation Measure
1.	Site development	Dust generation	To mitigate these impacts, regular sprinkling of water will be done at the construction site. However, the impact of such activities would be temporary and restricted to the construction phase and will be confined to the project boundary and is expected to be negligible outside the project boundaries.
2.	Vehicular movement	Concentration of NOx and CO may also be slightly increased due to increased vehicular traffic movement	The approach roads will be paved and vehicles will be kept in good order to minimize automobile exhaust. Proper up-keep and maintenance of vehicles, sprinkling of water on roads, providing sufficient vegetation and PUC certified vehicles etc., are some of the measures



APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 4  
ANTICIPATED ENVIRONMENTAL IMPACT  
AND MITIGATION MEASURES

that would greatly reduce the negative impacts during the construction phase.

#### 4.2.1.5 IMPACT ON NOISE LEVELS

S. No.	Aspects	Impact	Mitigation Measure
1.	Vehicular traffic, Construction equipment like dozers, scrapers, concrete mixers, cranes, generators, pumps, compressors, rock drills, pneumatic tools, saws, vibrators etc	Noise level may increase, hearing problem, loss of concentration due to more exposure in noisy area.	The construction equipment may have high noise levels, which can affect the personnel operating the machinery as operation of this equipment will generate noise ranging between 70-85 dB (A).  The major work will be carried out during the daytime. Use of proper personal protective equipment will mitigate any significant impact of the noise generated by such equipment.

#### 4.2.1.6 IMPACT ON TERRESTRIAL ECOLOGY

S. NO.	Aspects	Impact	Mitigation Measure
1.	Proposed Project	Loss of vegetation, habitat loss	There is no ecological sensitive area within 10 km of area and the proposed project. Impact on flora and fauna during the construction phase is not significant. Beneficial impacts due to the plantation development is envisaged. Therefore, the impact on terrestrial ecology will be insignificant.  No adverse impacts on the ecology/ biological environment due to the construction of proposed project is envisaged
2.	Migration of workers	Population changes in the surrounding area	During construction phase nearby local people will be employed hence no marginal movement is envisaged.
3.	Vehicular movement	Increased traffic on the	The local transport will be used by



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

100

186

PROJECT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX		<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED		
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119		

	regional road network	workers. Hence no impact envisaged.
--	-----------------------	-------------------------------------

**4.2.7 DEMOGRAPHY AND SOCIO-ECONOMY**

S. NO.	Aspects	Impact	Mitigation Measure
1.	Construction	Positive impact on employment generation	Around 350 people will be hired from nearby areas as per the suitability Skilled/Un skilled workers for the proposed expansion apart from indirect employment opportunities. Consequently, this will lead to additional economic upliftment of the area. Supply of raw materials & auxiliary facilities as indirect employment will generate. It would marginally improve the economic status of the people. The increased traffic will be only day time and will be intermittent. Hence no impact due to traffic increased is envisaged.

**4.3 IMPACT DURING OPERATIONAL PHASE**

**4.3.1 AIR ENVIRONMENT**

Prediction of air pollution impact is the most important component in the Environmental Impact Assessment studies. Several scientific techniques and methodologies are available to predict impacts of developmental activities on physical, ecological and socio-economic environments. Such predictions are superimposed over the baseline (pre project) status of environmental quality to derive the ultimate (post project) scenario of environmental conditions. The prediction of impact helps to identify the Environmental Management Plan required to be executed during and after commissioning the proposed project to minimize the adverse impacts on environmental quality. The details of the emission and management during operation phase are given below:-



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

Aspect	Mitigation Measure										
<p><b>A. Air Emission From equipment i.e.</b></p> <p><b>1. Boiler (10 Ton/hr)</b> <b>2.Pickling plant</b></p>	<ul style="list-style-type: none"> <li>Boiler (LNG Fired) having capacity of 10 TPH is attached to 30 m. stack height.</li> <li>Flue gases during pickling are routed into a Twin type fume scrubber through 30.0 m stack height.</li> <li>The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> </ul>										
<b>B. DG Sets-10 kVA</b>	DG Set having capacity of 2Nos.1000 KVA is attached to 30m stack height (DG sets Natural Gas )										
<b>C. Vehicular Emission</b>	<p>Emissions of vehicle exhausts include SO<sub>x</sub>, NO<sub>x</sub>, CO from combustion of fossil fuels will envisaged for transportation of raw material and finished goods. 3000 Nos. (1500 for Raw Materials + 1500 for Finished Goods) of Vehicles is being/will be used for the project. Transportation details for existing project is given below:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="background-color: #f2f2f2;">Transportation Details</th> <th style="background-color: #f2f2f2;">Total (No's)/month</th> </tr> </thead> <tbody> <tr> <td>Truck/ Trailer (20 MT &amp; 40MT) for Raw materials</td> <td>1500 (Diesel)</td> </tr> <tr> <td>Trucks/ Trailer (20 MT &amp; 40MT) for finished goods</td> <td>1500 (Diesel &amp; CNG)</td> </tr> </tbody> </table> <p><b>Management:</b></p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="background-color: #f2f2f2;">Source</th> <th style="background-color: #f2f2f2;">Management</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">Transportation</td> <td> <ul style="list-style-type: none"> <li>➤ PUC certified vehicles is being /will be used;</li> <li>➤ Vehicles used for transporting raw materials are driven by High Speed Diesel and vehicles used for transporting finished goods are driven by CNG &gt;50% of vehicles.</li> <li>➤ Speed limit of 10Km/hr. is/will be maintained in the plant premises.</li> <li>➤ The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> <li>➤ Good House Keeping is/ will be maintained.</li> <li>➤ Dry fogger is proposed.</li> </ul> </td> </tr> </tbody> </table>	Transportation Details	Total (No's)/month	Truck/ Trailer (20 MT & 40MT) for Raw materials	1500 (Diesel)	Trucks/ Trailer (20 MT & 40MT) for finished goods	1500 (Diesel & CNG)	Source	Management	Transportation	<ul style="list-style-type: none"> <li>➤ PUC certified vehicles is being /will be used;</li> <li>➤ Vehicles used for transporting raw materials are driven by High Speed Diesel and vehicles used for transporting finished goods are driven by CNG &gt;50% of vehicles.</li> <li>➤ Speed limit of 10Km/hr. is/will be maintained in the plant premises.</li> <li>➤ The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> <li>➤ Good House Keeping is/ will be maintained.</li> <li>➤ Dry fogger is proposed.</li> </ul>
Transportation Details	Total (No's)/month										
Truck/ Trailer (20 MT & 40MT) for Raw materials	1500 (Diesel)										
Trucks/ Trailer (20 MT & 40MT) for finished goods	1500 (Diesel & CNG)										
Source	Management										
Transportation	<ul style="list-style-type: none"> <li>➤ PUC certified vehicles is being /will be used;</li> <li>➤ Vehicles used for transporting raw materials are driven by High Speed Diesel and vehicles used for transporting finished goods are driven by CNG &gt;50% of vehicles.</li> <li>➤ Speed limit of 10Km/hr. is/will be maintained in the plant premises.</li> <li>➤ The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> <li>➤ Good House Keeping is/ will be maintained.</li> <li>➤ Dry fogger is proposed.</li> </ul>										
Fugitive Emissions from materials handling including	<p><b>Material Handling</b></p> <p>Dust particles are main pollutants handling of Fines, loading and unloading point, transfer points and storage area.</p>										



33/08/2024/SECTION PALWAL

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

storage or transport (other raw materials)	<p><b>Transportation</b></p> <p>Dust generation is envisaged as all the internal roads inside the plant premises.</p> <p><b>Management</b></p> <ul style="list-style-type: none"> <li>➤ Transfer, loading, unloading of the raw material will be done in a closed circuit to reduce fugitive emission.</li> <li>➤ Water sprinkling will be done in dust prone area.</li> <li>➤ Proper housekeeping will be done. Sweeping of roads will be done.</li> <li>➤ All paved roads will be developed inside the plant premises.</li> <li>➤ Periodically, water sprinkling on paved road will moisten the surface to prevent the fugitive dust.</li> <li>➤ Speed limit will be restricted up to 10 km/hr.</li> </ul>
--	--



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

#### 4.3.1.1 Impact on Air Quality

The impact on air quality is assessed based on emissions of the process stacks & DG sets in the proposed activity. PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO and Acid Mist will be the important pollutants emitting from the point and line sources.

Prediction of impacts on air environment has been carried out employing mathematical model based on a steady state Gaussian plume dispersion model designed for multiple point sources for short term. In the present case, **Aermod View** dispersion model for different stability state Gaussian plume dispersion, designed for multiple point sources for short term and developed by United States Environmental Protection Agency [USEPA] has been used for simulations from point and line sources.

#### Model Input Data

##### Point Source:

For the modeling purpose, all pollutants as described above are considered. The details of stack emissions envisaged from the project are given in **Table-4.2**.

**TABLE-4.2: STACK EMISSION DETAILS (Proposed)**

S. No.	Parameters	Units	Stack-I (BOILER 10TPH) (Fuel-LNG)	Stack II (PICKLING)	Stack - III (DG SET 1000KVA) (fuel-NG)	Stack - IV (DG SET 1000KVA) (fuel-NG)
1	Stack Height	m	30	30	30	30
2	Top diameter of flue	m	0.85	0.6	0.3	0.3
3	Flue gas velocity	m/s	10	8	10	10
4	Exit Flue gas temperature	K	433	323	453	453
5	Flue gas flow rate	m <sup>3</sup> /s	5.67	2.26	0.707	0.707
6	Emission rate at stack exit					
A	PM <sub>10</sub> emission rate	g/s	0.15	0.04	0.024	0.024
B	PM <sub>2.5</sub> emission rate	g/s	0.1	0.03	0.02	0.02
C	NO <sub>x</sub>	g/s	0.78	--	0.14	0.14
D	CO	g/s	0.39	--	0.07	0.07
E	Acid Mist	g/s	--	0.0315	--	--
7	APCM attached	---	N/A	FUME SCRUBBER	N/A	N/A

#### Line Source

Emission Source	Emission Factor	Emission rate
Line emissions	PM <sub>10</sub> - 0.055 kg/VKmT	PM <sub>10</sub> - 2.3 x10 <sup>-4</sup> g/s/m
	PM <sub>2.5</sub> - 0.022 kg/VKmT	PM <sub>2.5</sub> - 9.3 x 10 <sup>-5</sup> g/s/m





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	NO <sub>x</sub> – 3.5 g/Km-hr	NO <sub>x</sub> – 1.46 x 10 <sup>-5</sup> g/s/m
	CO – 1.5 g/Km-hr	CO – 6.3 x 10 <sup>-6</sup> g/s/m

### Presentation of Results

In the present case, model simulations have been carried out for the study period. The Ground level concentrations are computed for 24-hr average for all parameters except CO (8hrly). Maximum Ground level concentrations of PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, Acid mist and CO for study period were 0.813 µg/m<sup>3</sup>, 0.588 µg/m<sup>3</sup>, 2.408 µg/m<sup>3</sup>, 0.265 µg/m<sup>3</sup> and 2.808 µg/m<sup>3</sup> respectively. The obtained GLC's are well within the stipulated CPCB standards. The incremental ground level concentrations and its occurrence for various pollutants for the given meteorological conditions are given in **Table-4.3(a)**.

**TABLE-4.3 (a):**

#### Predicted 24-Hourly Short Term Maximum Incremental Concentrations

Pollutant	Maximum Incremental Concentration (µg/m <sup>3</sup> )	Distance (m)
PM <sub>10</sub>	0.813	Within project boundary
PM <sub>2.5</sub>	0.588	
NO <sub>2</sub>	2.408	
HCL Mist	0.265	
CO (8 hrly)	2.808	

### Resultant Concentrations after Implementation of the Project

The maximum incremental GLCs due to the proposed project for PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO are superimposed on 98 percentile baseline concentrations recorded during the study period. The cumulative concentrations (baseline+incremental) after implementation of the project are tabulated below in **Table-4.3 (b)**. The isopleths showing predicted ground level concentration for various parameters during study period is given in **Figure- 4.1(i) to 4.1(v)**.

**Table-4.3 (b):**

#### Details of incremental concentration of pollutants on sensitive locations like habitations

Location	Ground Level Concentrations of PM <sub>10</sub> in µg/m <sup>3</sup>			
	Predicted	Background (98 percentile)	Total Expected	CPCB Standard
Project Site	0.813	84.2	85	100
Devali	0.27	80.1	80.4	100
Asawati	0.2	76.8	77	100
Pyala	0.06	75.8	75.9	100
Dundsa	0.14	77.4	77.5	100



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

Gadpuri	0.05	73.5	73.6	100
Pirthala	0.14	73.8	73.9	100
Baghaura	< 0.1	76.8	76.8	100
<b>Location</b>	<b>Ground Level Concentrations of PM<sub>2.5</sub> in µg/m<sup>3</sup></b>			
	<b>Predicted</b>	<b>Background (98 percentile)</b>	<b>Total Expected</b>	<b>CPCB Standard</b>
Project Area	0.59	52.3	52.9	60
Devali	0.15	46.3	46.5	60
Asawati	0.1	46.2	46.3	60
Pyala	< 0.1	45.9	45.9	60
Dundsa	0.1	47.1	47.2	60
Gadpuri	< 0.1	54.5	54.5	60
Pirthala	0.1	43.5	43.6	60
Baghaura	< 0.1	46.9	46.9	60
<b>Location</b>	<b>Ground Level Concentrations of NO<sub>2</sub> in µg/m<sup>3</sup></b>			
	<b>Predicted</b>	<b>Background (98 percentile)</b>	<b>Total Expected</b>	<b>CPCB Standard</b>
Project Area	2.41	11.9	14.3	80
Devali	0.84	13.5	14.3	80
Asawati	0.6	11.7	12.3	80
Pyala	0.29	14.5	14.8	80
Dundsa	0.54	17	17.5	80
Gadpuri	0.23	13	13.2	80
Pirthala	0.53	14.7	15.2	80
Baghaura	0.17	16	16.2	80
<b>Location</b>	<b>Ground Level Concentrations of CO in µg/m<sup>3</sup></b>			
	<b>Predicted</b>	<b>Background (98 percentile)</b>	<b>Total Expected</b>	<b>CPCB Standard</b>
Project Area	2.81	500	503	2000
Devali	0.8	570	571	2000
Asawati	0.42	600	600	2000
Pyala	0.2	510	510	2000
Dundsa	0.7	550	551	2000
Gadpuri	0.24	630	630	2000
Pirthala	0.5	590	591	2000
Baghaura	0.2	610	610	2000

*\* indicates the projection of the values and doesn't indicate the expected as already the project is operational and the present proposal is applied for regularization without change in its configuration or its allied activities.*

It is seen from the above table, the resultant GLC's obtained at various locations are well within the CPCB standards (dated 18th November, 2009). Thus, there is no or minimal impact on air environment.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX
APPLICANT: JYOTI STRIPS PRIVATE LIMITED
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
---

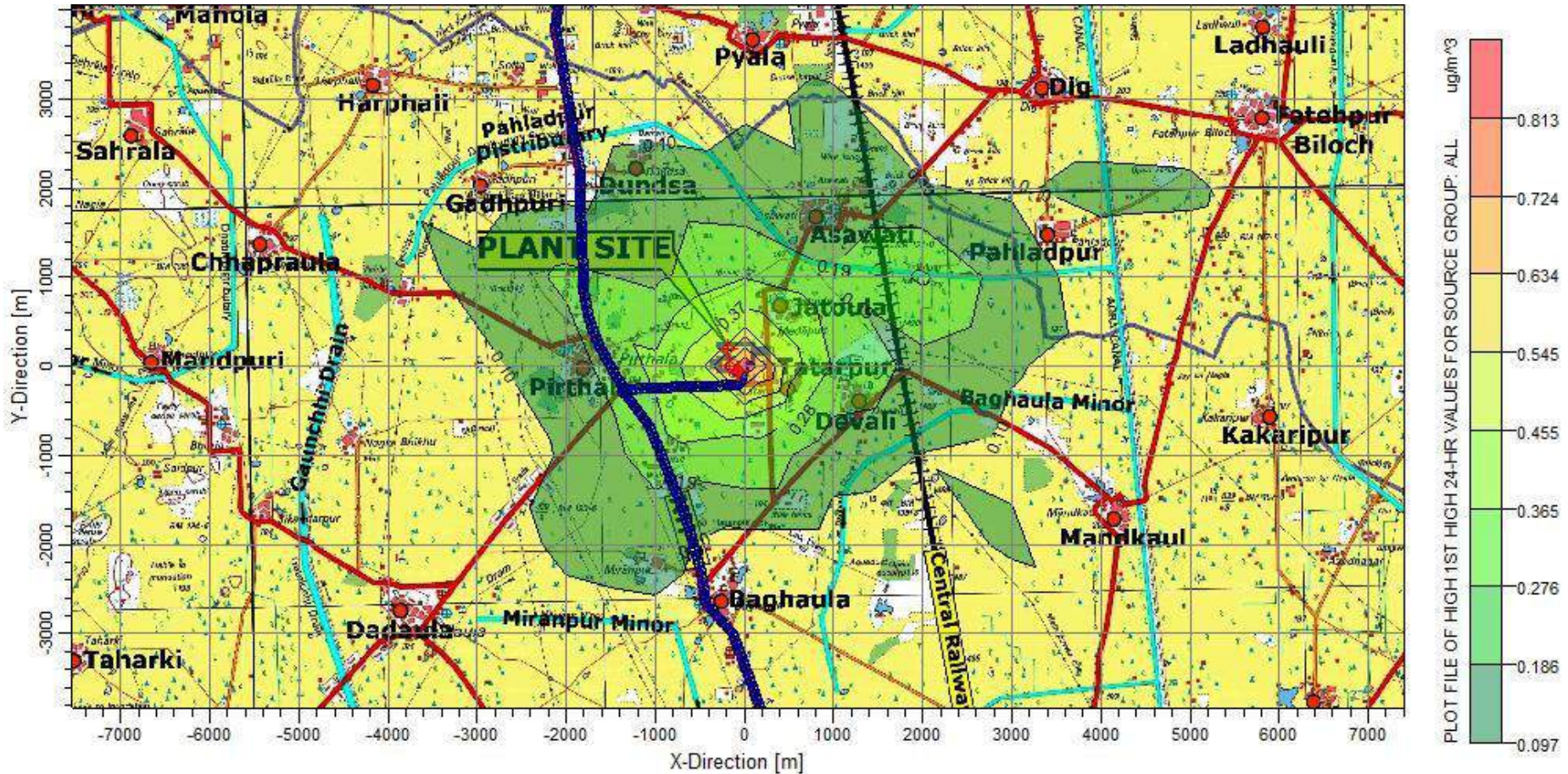


Fig 4.1(i): Isopleths showing maximum incremental ground level concentrations of PM<sub>10</sub>



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL/2024  
183

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

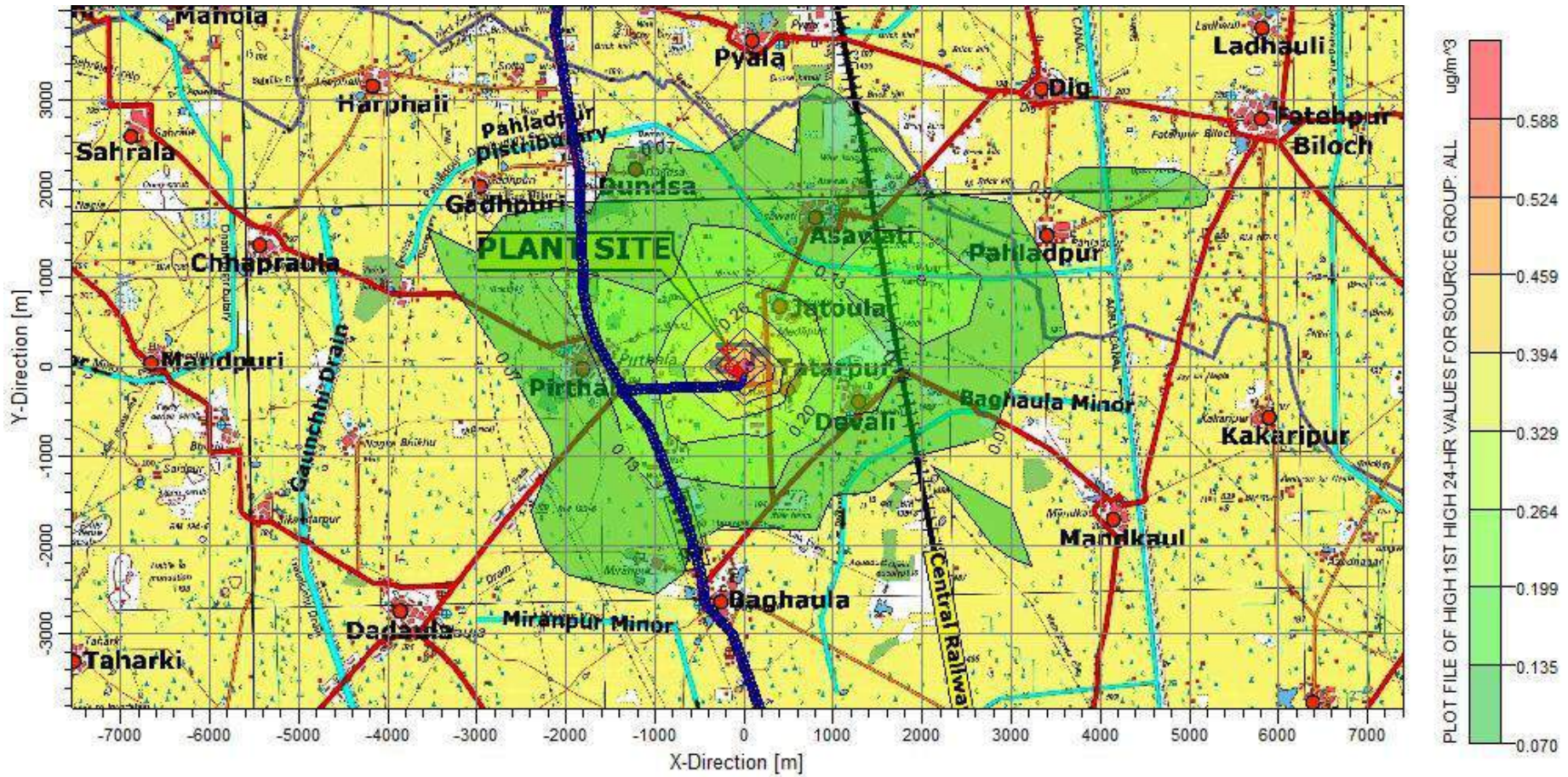


FIG. 4.1(ii):Isopleths Showing Maximum Incremental Ground Level Concentrations of PM<sub>2.5</sub>



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL 2024  
188

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX
APPLICANT: JYOTI STRIPS PRIVATE LIMITED
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
---

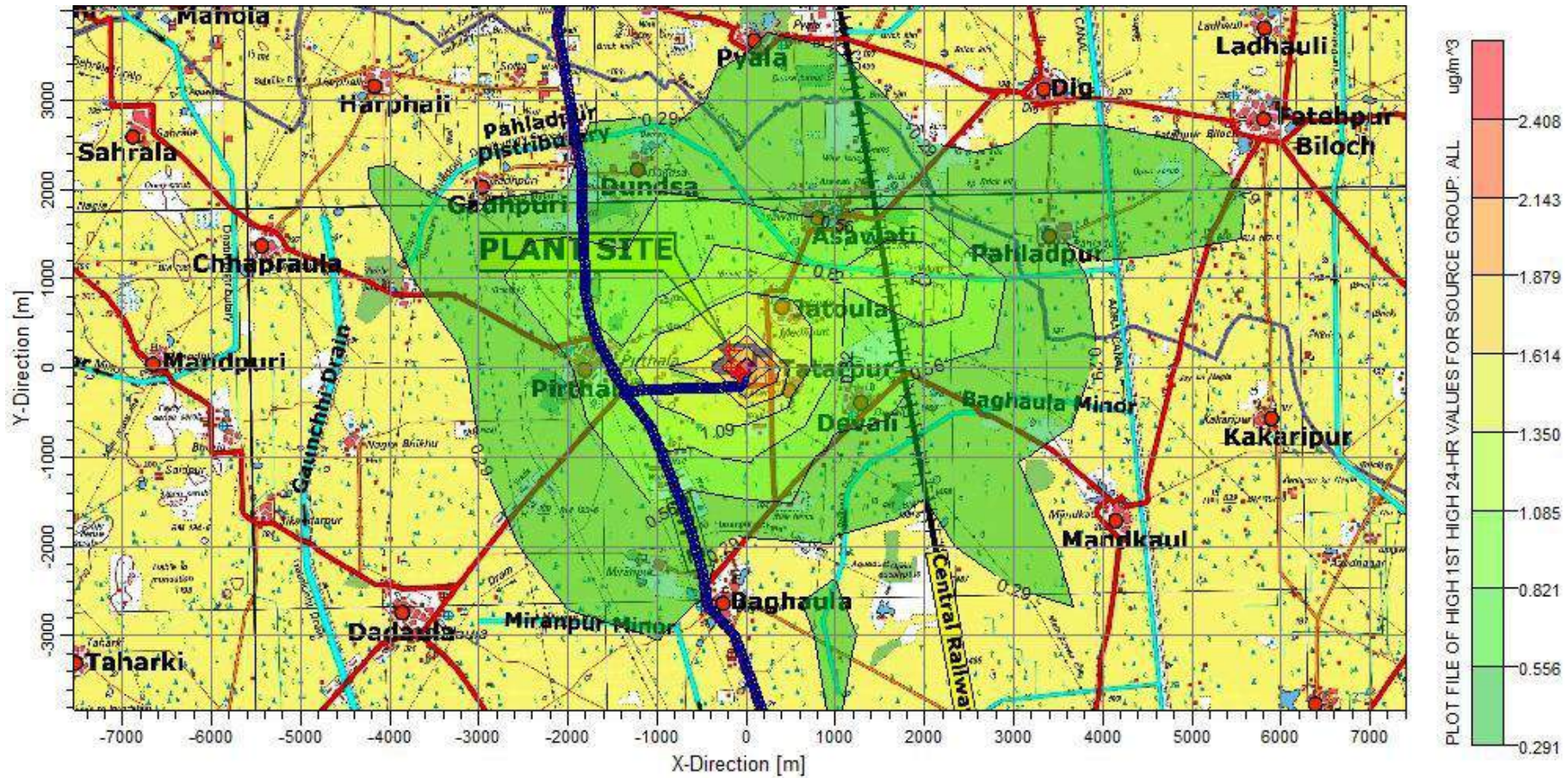


FIG. 4.1(iii): Isopleths Showing Maximum Incremental Ground Level Concentrations of NO<sub>2</sub>



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL 2024  
189

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

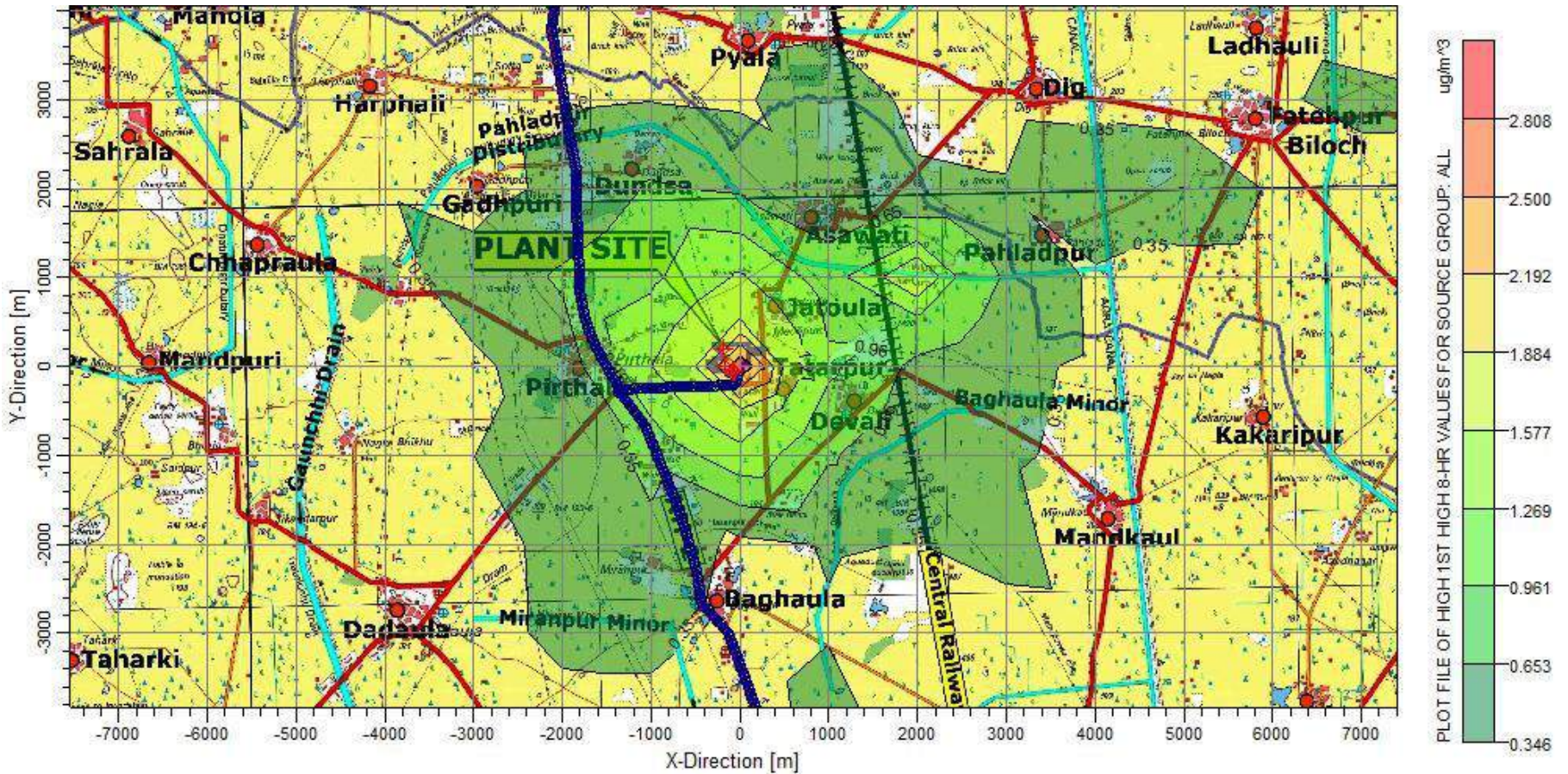


FIG. 4.1 (v): Isopleths Showing Maximum Incremental Ground Level Concentrations of CO (8 hourly)



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL/2024  
190

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

#### 4.4 NOISE ENVIRONMENT

##### 4.4.1 IMPACT ON NOISE

Noise Generating Sources		
Aspect	Impact	Mitigation Measure
Noise generating equipment are Blowers, Compressors, F.D fan operation of DG set for emergency power supply and vehicular movement etc.	<ul style="list-style-type: none"> <li>➤ Prolonged exposure to high levels of industrial noise can lead to various health issues, including hearing loss, sleep disturbances, stress, anxiety, and increased risk of cardiovascular diseases.</li> <li>➤ It can also interfere with communication and concentration.</li> <li>➤ It can adversely affect wildlife by disrupting their natural behaviors, communication patterns, and migration routes</li> </ul>	<ul style="list-style-type: none"> <li>➤ Use of silencers for fans.</li> <li>➤ Acoustic enclosure for DG set.</li> <li>➤ Adopt Personal Protective Equipments (Ear Plugs/ Muffs) in high noise zone.</li> <li>➤ The propagation of noise way will be prevented by creating barrier in form of the proposed greenarea all around the project area boundary.</li> <li>➤ Proper lubrication, modernization of equipment will be done to reduce the noise.</li> <li>➤ The plantation development will help in reducing noise levels in the campus as a result of attenuation of noise generated due to plant operations and transportation.</li> </ul>

##### 4.4.2 Noise Quality Impact Predictions

To understand the combined effect of these noise levels on the nearby community, Cusic 3.2 (Lakes Environmental – USEPA approved) scientific model has been used to estimate the noise levels at different distances from different sources. All the major noise generating sources from the plant is considered in this model. The noise level at various locations due to different sources is calculated based on the following formula:



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

111

107

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

$$Lp2 = Lp1 - 20 \log (r2 / r1) - Ae1, 2$$

where, Lp1 and Lp2 are sound levels at points located at distance r1 / r2 from the source and Ae1,2 is the excess attenuation due to environmental conditions.

The predicted noise levels based on the above analysis in the nearby villages, considering that there is no attenuation on account of barriers (without EMP) and with EMP will be as follows:

LOCATION	EXISTING		MAXIMUM PREDICTED	RESULTANT Without EMP		RESULTANT With EMP	
	Leq(day)	Leq(night)		Leq(day)	Leq(night)	Leq(day)	Leq(night)
Project Site	57.8	45.6	58	60.9	58.2	58.8	52.9
Devali	51.4	42	40.5	57.7	44.3	51.4	42.7
Asawati	50.7	41.9	38	50.9	43.3	50.7	42.3
Pyala	50.7	42.6	31.9	50.7	42.9	50.7	42.6
Dundsa	52.9	42.7	36	52.9	43.5	52.9	42.9
Gadpuri	50.8	40.1	32.9	50.8	40.8	50.8	40.3
Pirthala	51.7	41.9	39.9	51.9	44	51.7	42.5
Baghaula	50.9	43.1	34.4	51	43.6	50.9	43.1

*Note: All values are in dB(A) ; '\*' indicates the resultant values which is same as existing values as the proposal is only meant for regularization without change in configuration and its allied activities.*

**From the above, it is clearly seen that there will be no significant impact on the surrounding community due to noise from the proposed activity considering EMP measures in place.**

Further due to design / maintenance of machines, enclosures of process plant, provision of PPE's, greenarea development, etc., the impact on noise levels will be minimal. The isolines showing the incremental noise levels due to the proposed activity are given in below figure..





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

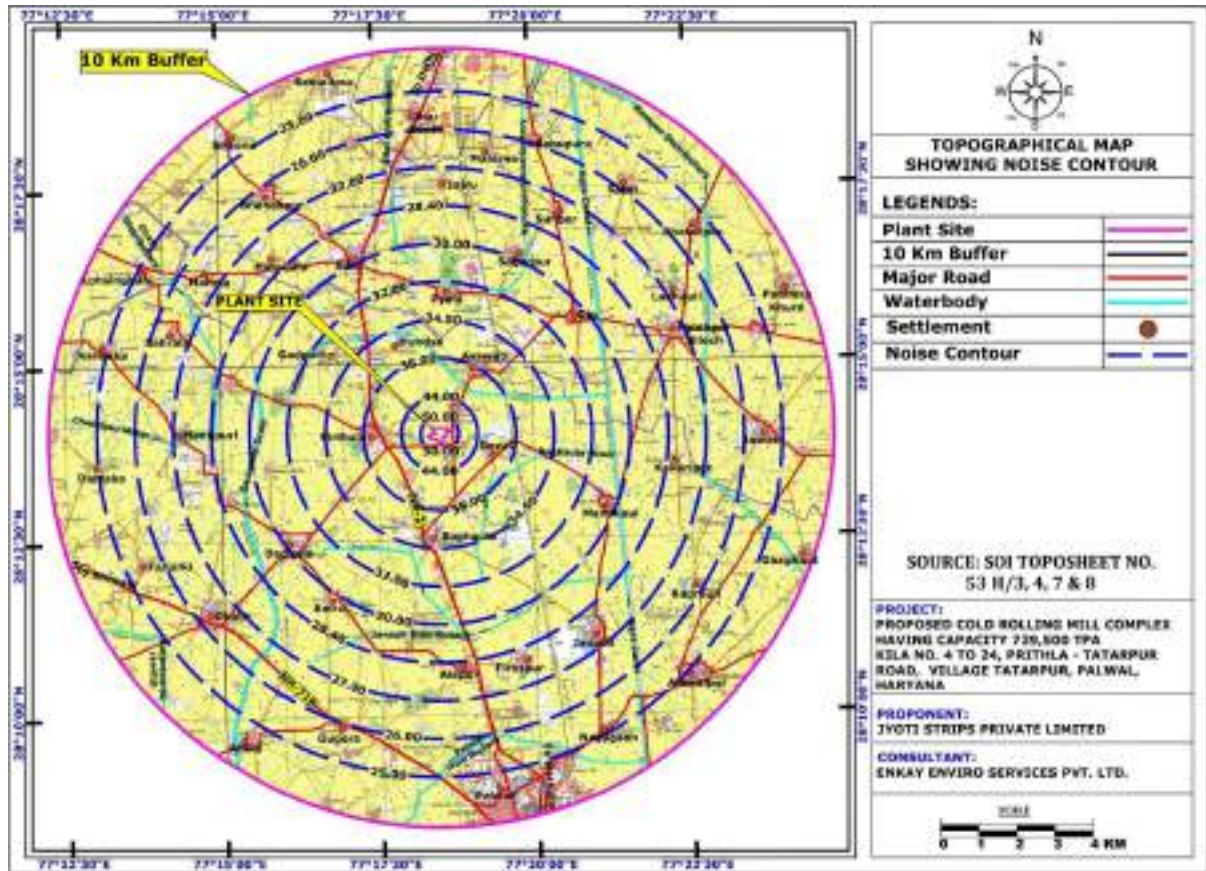


Figure 4.2: Isolines showing Incremental noise levels due to the proposed activity

**4.5 IMPACT & PREDICTION DUE TO TRAFFIC STUDY IN OPERATION PHASE**

**Traffic Scenario and LOS before establishment of project**

Phase	Road	V (Volume in PCU/Day)	C (Capacity in PCU/DAY)	Existing V/C Ratio	LOS
Before Establishment of the project	NH-2	2043	5400	0.37	B

**Modified Traffic Scenarios and LOS due to proposed Project**

Road	Increased PCU's- National Highway	V (before plant establishment+ after plant operation)	C	Modified V/CRatio	LOS
NH-2	100	2043 + 100 = 2143	5400	0.39	B



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

V/C Ratio	LOS	Performance
0.0-0.2	A	Excellent
0.2-0.4	B	Very Good
0.4-0.6	C	Good/Average/Fair
0.6-0.8	D	Poor
0.8-1.0	E	Very Poor

The LOS value from the proposed project almost same as earlier value "Very Good" for National highway-2. So the additional load on the carrying capacity of the concern roads is not likely to have any significant adverse effect.

#### 4.6 LAND ENVIRONMENT

##### 4.6.1 Source

- Change in Land Use/ Land Cover;
- Change in topography.

##### 4.6.2 Impact Prediction & Mitigation Measures

S. No.	Aspect	Impact	Management
1.	Change of Land Use/ Land Cover	No impact on land use	➤ The project site is already converted for industrial use. Hence, no impact on Land use pattern is envisaged.
i.	Impact on Hydrology	No impact on hydrology is envisaged as no additional water will be withdraw from the plant premises.	<ul style="list-style-type: none"> <li>➤ Rain water harvesting will be carried out in order to improve ground water table of the area.</li> <li>➤ <b>Six</b> RWH structures will be capable of recharging rainwater volume @ 32.4 m<sup>3</sup>/hr. having dimension of 4 m length x 3 m width x 2 m depth with 8" dia.</li> <li>➤ Storm water drains will be developed and connected to settling tanks which will be further connected to rain water harvesting pits.</li> <li>➤ Fresh water requirement will be</li> </ul>



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

			minimized. ➤ With suitable mitigation measures, impact will be negligible on hydrogeology.
2.	Change in Topography.	The proposed project will not cause any change in the topography at the project site.	The highest and lowest elevation of the project site is 416 MSL and 415 MSL it shows almost flat terrain of the proposed project site.

#### 4.6.3 Solid and Hazardous Waste

**Table 4.4: Details of waste Generation**

Aspect	Impact				Mitigation Measure
Generation of hazardous waste;	Improper handling and storage, or leaks and spills could result in impacting Soil quality, water quality, air quality and workers health.				<p>➤ The generated Hazardous waste will be stored in designated storage area with the display board.</p> <p>➤ The generated Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 is being/will be sent to the CPCB authorized recycler.</p>
<b>Hazardous Waste Quantity in TPA</b>					<b>Treatment/ disposal</b>
<b>Type of Waste</b>	<b>Schedule</b>	<b>Code</b>	<b>Proposed</b>	<b>Total</b>	
Chemical Sludge from waste water treatment (TPA)	1	35.3	16000	16000	
Used Oil or Spent Oil	1	5.1	200	200	
Iron oxide	1	5.2	4000	4000	Send to registered recyclers
Disposal of municipal solid wastes (MSW's) onto land/on	<ul style="list-style-type: none"> <li>• Water contamination,</li> <li>• Solid waste generation</li> <li>• Create foul odor and Nuisance in surrounding</li> </ul>				No solid waste will be disposed on land or



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

soil quality.	area thereby adversely impacting the receptors.	outside the plant premises. The solid waste generated will be sent to Municipal Council, Palwal.
---------------	---	--

Particulars	Waste Quantity in TPD			Treatment/ disposal
	Type of Waste	proposed	Total	
Sludge TPA	STP Sludge	0.5	0.5	Used as manure for plantation
Municipal Solid Waste (@0.125 Kg/ day	Biodegradable	0.25	0.25	Sent to Nearest Municipal site
Scrap from Process	Scrap	181.81	181.81	Sold to Local market

## 4.7 Water Environment

### 4.7.1 Source

- Industrial Waste Water;
- Domestic Waste Water.

### 4.7.2 Impact Prediction & Mitigation Measures

Aspect	Impact	Mitigation Measure
Surface Water	No significant impact is envisaged.	No prominent stream or seasonal nallah is passing through the project area. Pahladpur Distributary is at a distance of 1.15 Km towards NNE from the project site, it is not a non-perennial river.  No water will be discharge to the water body. Hence no impact is envisaged.
Ground water	<ul style="list-style-type: none"> <li>➤ Ground water contamination, foul smell, air nuisance .</li> <li>➤ Soil contamination : Acidification of soil, loss of nutrients/fertility, formulation of gases</li> </ul>	<p>No solid waste will be disposed on land or outside the plant premises. The solid waste generated will be sent to Municipal Council, Palwal.</p> <ul style="list-style-type: none"> <li>➤ No water will be discharged on land and water bodies as ZLD will be maintained. No water will be</li> </ul>



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

				discharged outside from the plant premises. ➤ Rain water harvesting structure will be installed within the plant.
S. No.	Liquid Effluents	Quantity	Unit	Mode of Treatment/ Disposal
1	Domestic Sewage	75	KLD	Domestic waste water 75KLD will be treated in STP (Capacity-100KLD) and 37.5 KLD of Treated water will be reused in plantation. And 30 KLD will be recycled for flushing purposes.
2	Trade Effluent	318.75	KLD	Stage-1: The effluent generation from industrial process (127.5 KLD) will be treated in ETP-1 (160KL capacity) of low COD and low TDS Stage-2: spent and coolant waste water of 48.75KL will be treated in ETP-2 (65KL Capacity) of high COD and high TDS  Treated water from ETP 1 and ETP 2 will be sent to WRP-RO followed by MEE (ZLD plant)  The overall treated water of 270KLD is reused after treatment in COC to Cooling Tower.  No waste water will be disposed of on ground outside the plant premises.

### 4.7.3 WASTE WATER TREATMENT

#### A. Domestic Waste Water Management

Domestic sewage 75 KLD which will treated in STP (capacity-100 KLD). Treated water will be used in plantation purpose and recycled water will be used for flushing purposes.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

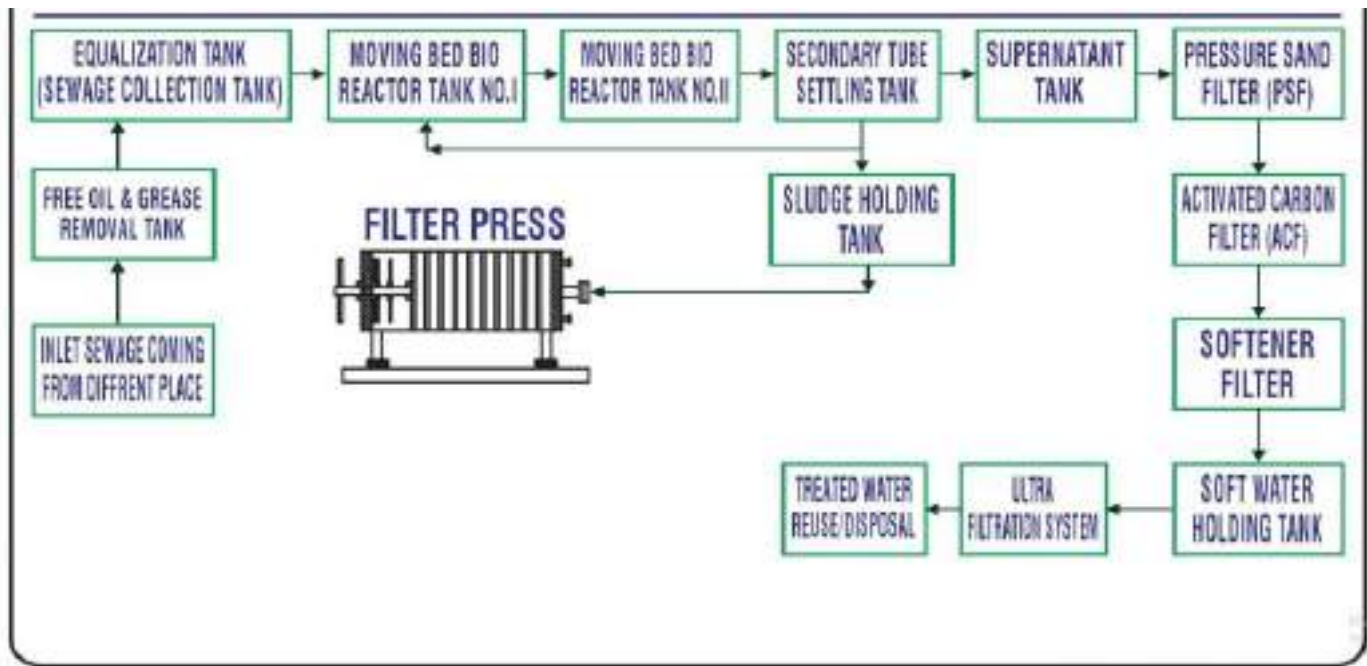


Figure 4.3 Flow Diagram of Sewage Treatment Plant

**A. Characteristics of Treated Effluent**

The characteristics of treated waste water are given below: -

Table 4.5: Characteristics of Treated Waste Water.

Characteristics	Treated	G.S.R. 1265(E) Concentration not exceed
pH	6.0 to 8.0	6.5-9.0
Appearance	Clear	-
Suspended Solids (Mg/l)	<100	<100
BOD (3 days at 27°C)	<30	30
Fecal Coliform (FC)(MPN/100ml)	--	<1000

**Technology Based On:** – Sequence Batch Reactor (SBR) Technology

**Process Description:**

For the purpose of Sewage water treatment, the various Influent from the generation units shall be collected at one central location and STP will be installed for treating this sewage with the following equipment.

- 1.Inlet Sewage Tank
- 2.Oil and Grease Removal Chamber
- 3.Equalization Tank
- 4.Moving Bed Bio Reactor -1



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

5. Moving Bed Bio Reactor -2

6. Tube Settling Tank

7. Supernatant water Tank

8. Pressure Sand Filter

9. Activated Carbon Filter

10. Softener

11. Ultra Filer

12. Treated Water Tank

13. Sludge Holding Tank

14. Filter Press

#### **Process and Technology**

- The incoming sewage will be Pumped to equalization Tank from the underground Inlet Sewage collection Tank.
- From Equalization Tank the sewage will be overflown to two numbers Moving Bed Bio Reactors in series where continuous aeration is done for germination of Sewage reducing Bacteria. Bacteria separate out the sewage into clear water and sludge.
- Over flow of MBBR will be sent to Tube settler where sludge will be collected as underflow in sludging holding tank and supernatant water will be overflown to supernatant water tank. Part of the underflow sludge of tube settler will be circulated to first MBBR to increase concentration of bacteria.
- From supernatant water tank the primary treated water will be pumped to PSF and ACF for filtration and deodorization. And then will be sent to Softener.
- Softened water is pumped to UF unit which will further reduce the Odor and BOD up to acceptable norms of PCB.
- Finally treated water can be used for gardening and make up water for the Fire Hydrant storage Tank.
- Sludge from the sludge holding tank will be pumped into the Filter Press for obtaining Dry sludge. And this dry sludge will be utilized for the gardening in plant premises.

#### **4.7.4 Industrial Waste Water Management**

The effluent generation from industrial process is 127.5 KLD will be treated in ETP-1 (160KL capacity) of low COD and low TDS. spent and coolant waste water of 48.75KL will be treated in ETP-2 (65KL Capacity) of high COD and high TDS.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

Treated water from ETP 1 and ETP 2 will be sent to WRP-RO followed by MEE (ZLD plant).

The overall treated water of 270KLD is reused after treatment in COC to Cooling Tower.

No waste water will be disposed of on ground outside the plant premises.

#### 4.7.5 Rain water Harvesting Scheme

##### Storm Water Management

In the present area, most of rainwater goes as runoff & a small portion of total rainfall (6%) meets the underground water as per hydraulic parameters. Therefore, a wise solution to enhance water availability is to collect most of the water drops falling from the sky. In designing any Rainwater harvesting structure, capturing rainfall and runoff for local use is the key concept. Hard surface such as roof pavements that decrease groundwater percolation constitute good catchment and generate high runoff which has to be diverted in to the storage tank and used by the plant or into the harvesting pit to recharge the ground water. In view of above, rainwater-harvesting structures at this point can serve the purpose of arresting roof top rainwater and runoff generated through roads in the area. The design is based on average annual rainfall, peak rainfall intensity.

##### DESIGN OF RAINWATER HARVESTING:

For good design of rainwater harvesting, following points are to be kept under consideration:

- Ideal location with good ground slope.
- The location which can store maximum rainwater through storage tank.
- Ground water pollution does not take place.

##### Average runoff coefficient taken for the area is as under: (As per CGWA guideline):

- Average runoff coefficient for rooftop = 85%
- Average runoff coefficient for Road, Cemented area & Paved area = 65%
- Average runoff coefficient for Lawn & Green belt area= 15%
- Average runoff coefficient for Open Area village = 20%

##### CALCULATION OF PEAK DISCHARGE:

S.No.	Particulars	Area (sq. m.) [A]	Run off Coefficient [C]	Average Rainfall [I2] (m/annum)	Annual Discharge Q2=C * I2 * A
1	Roof Top of building/Shed/	55219.97	0.85	0.542	25439.84



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

120

206



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

2	Road/Paved area	35,997.62	0.65	0.542	12681.96
3	Green Belt	36077.1	0.15	0.542	2933.07
	<b>Total (sqm)</b>	<b>127294.69</b>			<b>41054.87</b>

### **DESIGN OF RAINWATER HARVESTING TANK**

The recharge pond with have percolation pits based on the design for 15 mm/hour peak rainfall intensity (Ref. Indian Institute of tropical metrology Pune). Considering 15 minutes of peak rainfall, runoff volume in a single storm should be:

- For Rooftop:  $55219.97 \text{ m}^2 \times 0.542 \times 0.015 \text{ m}/4 = 112.23 \text{ m}^3$
- For Road/Paved area :  $35,997.62 \text{ m}^2 \times 0.542 \times 0.015 \text{ m}/4 = 73.16 \text{ m}^3$
- Total runoff generated from roof top and road paved area:  $185.39 \text{ m}^3$
- by taking the peak intensity rainfall of 15 mm

As per recharge considered as 60% of yield @  $54 \text{ m}^3/\text{hr}$ , the recharge capacity of one RWH structure will be @  $32.4 \text{ m}^3/\text{hr}$ . **Six** RWH structures will be capable of recharging rainwater volume @  $32.4 \text{ m}^3/\text{hr}$ . having dimension of 4 m length x 3 m width x 2 m depth with 8" dia. injection well of 30 m depth with slotted pipe below water level having gravel packing and compressor development.

The schematic diagram of proposed RWH structure is given below:



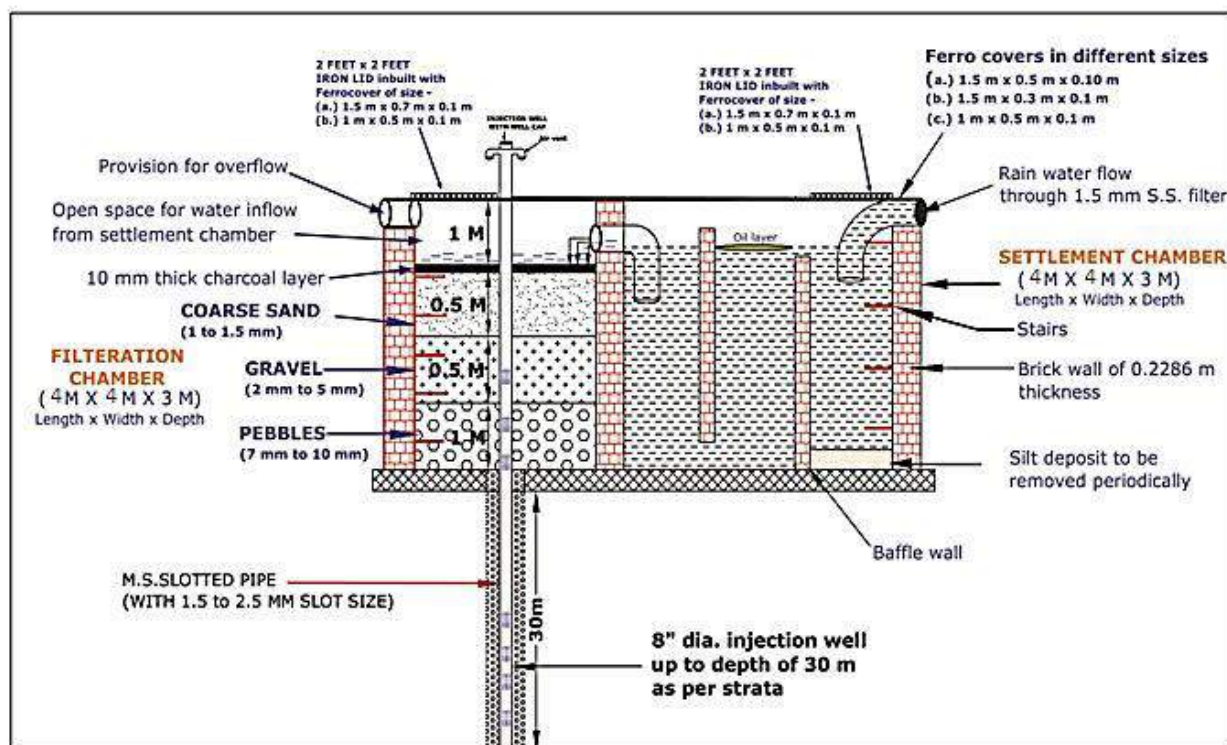


Figure 4.4: Design of Open Type of Rain Water Harvesting Structure

#### 4.7.6 Impact on Drainage

Topographically, the proposed unit area is almost flat. The natural drainage of the project site is east direction to west direction and will be unaltered and remain same.

No impact on surface water drainage is envisaged.

#### 4.8 BIOLOGICAL ENVIRONMENT

The potential impact of fugitive emissions (dust) may impact on terrestrial flora, as settled dust on plant surfaces can hinder the efficiency of photosynthesis by obstructing light absorption. Additionally, dust accumulation may smother leaf surfaces, blocking stomata and leading to reduced transpiration, which can further affect plant health and productivity.

##### Mitigation measures

- To control dust emissions, dust suppression techniques like watering down roads and stockpiles, covering materials, and using vegetation barriers. These efforts aim to minimize dust dispersion and deposition on plant surfaces, thereby safeguarding the health and productivity of terrestrial flora.
- Regular maintenance and servicing of construction equipment will be conducted to ensure they operate as quietly as possible. This can include lubricating moving parts, repairing or replacing worn components, and tuning engines for optimal performance.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

- Where feasible, noise barriers will be installed around construction sites to minimize the spread of noise beyond the immediate area. These barriers can be constructed using natural materials like earth berms or vegetation.
- Total 12 nos of trees are present in the proposed plant site and during the course of construction no trees will be uprooted therefore; the impact on terrestrial ecology would be minimum.

#### 4.8.1 Impact on Biological Environment

<b>Construction Phase</b>		
<b>Aspect</b>	<b>Anticipated Impact</b>	<b>Mitigation</b>
Site clearing and leveling 1. Cutting of bushes in the core zone 2. Stripping Excavation 3. Levelling of the surface 4. Movement of heavy earth moving vehicles and equipment's	1. Loss of top soil 2. Compaction of soil and decreasing of pore and particle size  Dust generation leading to 1. Deposition on leaves and hampering photosynthesis 2. Respiratory issues to the workers	The top soil will be preserved and used for plantation.  <ul style="list-style-type: none"> <li>• To counter the said situation, proper landscaping and tree plantation shall be done from beginning of construction activities.</li> <li>• The industry will develop a plantation on the surrounding periphery.</li> </ul>
	Loss of existing vegetation	<ul style="list-style-type: none"> <li>• There is no forest land in the project site.</li> <li>• The project proponent shall follow the process of environmental preservation by plantation at the site and its surroundings right from the commencement of construction phase. Therefore, significant ecological impact is not</li> </ul>



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

		envisaged during construction phase of the proposed project.
	The land-use of the area is changed for industrial purpose.	<ul style="list-style-type: none"> <li>The incremental emission level of air pollutants due to this project is not likely to induce any significant changes in the ecology because the pollution dispersion will remain confined within the limits of the plant</li> <li>There will not be any cutting of the Trees at the site. The industry will develop a plantation on the surrounding periphery of the proposed project.</li> </ul>
Working of construction machinery, heavy vehicles, dumpers, and trucks	Impact of noise on the faunal species (particularly on avifauna and small mammals)- Loss of local faunal species	<ul style="list-style-type: none"> <li>The plantation will be developed in exclusion zone in construction phase which will act as barrier to noise and dust generated during construction.</li> <li>The regular maintenance and up keeping of construction machinery, heavy vehicles, dumpers, and trucks will be helpful in reducing noise.</li> </ul>

<b>OPERATION PHASE</b>		
<b>Aspect</b>	<b>Anticipated Impact</b>	<b>Mitigation</b>
Dust and gaseous Emission from the stack	Fugitive emissions may cause: Obstruct photosynthesis and	Air Pollution Control Equipment (APCE) like Bag Filter at various



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	growth of plants	material handling & transfer points will be installed to keep the emissions within the permissible limits.
Fugitive dust generation by material handling, loading unloading	Dust may cause migration of animals and birds	Regular use of water sprinkler on the haul road to control fugitive emissions in the surrounding environment. Construction of paved roads for transportation to minimize fugitive emissions
Generation of Domestic waste	Improper domestic waste disposal may lead to un-hygienic situation and water born diseases- that may affect the workers and the fauna of the surrounding	Domestic waste will be treated in STP and treated water will be utilized for plantation.
Working of machinery and equipment's during the operational phase. Noise on the faunal species (particularly on avifauna and small mammals) -	Loss of local faunal species	<ul style="list-style-type: none"> <li>• The proposed plantation will act as bio-filters and future reduce the level of pollutant concentration and also will improve the overall ambient air quality (air and noise) in and around the project environment.</li> <li>• It is proposed to include <i>Azadirachta indica</i>, <i>Cassia fistula</i>, <i>Ficus religiosa</i>, in the plantation program as they serve as sinks for emissions.</li> <li>• The regular maintenance machinery and heavy vehicles will be helpful in reducing noise.</li> </ul>
Vehicular movement	Fugitive dust emission and spillage of fuel/ oil	<ul style="list-style-type: none"> <li>• Regular maintenance of vehicles</li> <li>• The paving of roads and movement area.</li> <li>• Clean the road on regular basis.</li> </ul>
	Road accidents and mortality of wildlife.	Orientation training will be imparted to the plant employees to



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

125

205

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	develop a sense of sympathy towards fauna. Instructing the drivers of transport vehicles to allow the fauna to cross the road by slowing down the speed of the vehicle.
--	---

### Plantation

The main objective of the plantation is to provide a barrier between the source of pollution and the surrounding areas. The green area helps to capture the fugitive emission and to attenuate the noise generated. By planting trees, we can achieve the dual purpose of bio-aesthetics as well as mitigation of pollution. Proper planning and plantation scheme depends upon the magnitude and type of pollution, selection of pollution tolerant and dust capturing plants.

### Selection of Plant Species

Selection of plant species shall be done carefully considering the project activity; pollutants to be generated; local climatological conditions; ecological structure etc. The following characteristics are to be considered while selecting plant species for green area development/ afforestation:

- Fast growing and quick canopy development.
- They should have strong branches, thick and durable canopy which can withstand storm.
- They should have dense foliage for better trapping of pollutants.
- The species should be Indigenous.
- Selection according to the mitigation measure proposed (like- dust and noise attenuation, SO<sub>x</sub> and NO<sub>x</sub> control)
- Able to maintain the ecological and hydrological balance of the region.
- Leaves with hairy, resinous, scaly, and coarse surfaces could capture more particles than smooth leaf.
- Plant species have long life span.

### Protection, care and monitoring of plantation:

- Tree guards will be provided for the protection of plantation, from grazing, etc. for at least 3 years. (outside the plant)



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

- In order to protect the plants from sun burn and heat stress during summer, jute bags and agro net will be used.
- After Care: timely and sufficient after care is required such as soil manuring, weeding, proper watering etc.
- Proper fencing will be done to protect the plants from animals.
- Proper monitoring of the plantation will be made.

## 4.9 SOCIO ECONOMIC IMPACT MATRIX

### 4.9.1 Impact on Community Demographics

S. No.	Existing variables/ situations Socio-economic Issues.	Predict (adverse/ favorable) impacts (reasons for variations of representative data).	Mitigation measures. In numbers.
1	Habitation in the Core Zone: - There is no habitation in the Core Zone.	<b>Zero (0)</b> Loss of habitation. No displacent due to the project. The villagers in area have a high ecological integrity and support human life by giving direct or indirect benefits and services. The region is rich with high social capital and interpersonal ways of meeting and interacting with each other are harmonious.	All measures are being taken to ensure the safety with a team of security guards posted at the various entry & exit gates. Also to restrict & maintain safety, a dedicated road for public approaching the NH-2 ensures safer movement.
2	Habitation in the Buffer Zone:- There are habitations in the Buffer Zone and the nearest habitations include <ul style="list-style-type: none"> <li>• Tatarpur ~ 0.45 Km, ESE</li> <li>• Prithla ~ 1.407 km W</li> </ul>	The wind direction is predominantly between west to east directions. Nearest habitation is Tatarpur ~ 0.45 Km, ESE not in the predominant wind direction However the magnitude of emission impact will be localized to the Plant site.	<ul style="list-style-type: none"> <li>• Periodic maintenance and emission check of vehicles shall be ensured.</li> <li>• Adequate measures of air quality &amp; noise management etc. are adopted and various other instruments like water sprinklers etc. are being done twice a day, every day.</li> <li>• So also industrial emission are mitigated through PCM and the plantation &amp; landscaping inside &amp; around the project premises are done.</li> </ul>



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

3	Immigration/ Emigration of workers. Large number of population commutes to R.IA Hamirgarh in search of work. Labour migration (mainly Males) from smaller villagers to urban/ developing areas in search of work is a general problem.	The labour migration in J.S.L needs to be checked through creating employment opportunities in the district Palwal. project aims to control emigration of 300* workers at least.	The probable non - emigrating population, due to the proposed project, contribute in the regional growth.																		
			<table border="1"> <thead> <tr> <th>Particular</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Permanent</td> <td>300</td> <td>300</td> </tr> <tr> <td>Skilled</td> <td>650</td> <td>650</td> </tr> <tr> <td>Semi- skilled</td> <td>350</td> <td>350</td> </tr> <tr> <td>Unskilled</td> <td>700</td> <td>700</td> </tr> <tr> <td><b>Total</b></td> <td><b>2000</b></td> <td><b>2000</b></td> </tr> </tbody> </table>	Particular	Proposed	Total	Permanent	300	300	Skilled	650	650	Semi- skilled	350	350	Unskilled	700	700	<b>Total</b>	<b>2000</b>	<b>2000</b>
Particular	Proposed	Total																			
Permanent	300	300																			
Skilled	650	650																			
Semi- skilled	350	350																			
Unskilled	700	700																			
<b>Total</b>	<b>2000</b>	<b>2000</b>																			

#### **\*Probability analysis of non - emigrating population**

*Hypothesis based on field study:- Migration chances are more among male workers as compared to women workers. Migration among the women workers is dependent on the job shifts of their male counterparts.*

- *Emigration of the literate population:- With a likely occurrence of 6 in every 10 literate men migrate in search of work, from the study area.*
- *Emigration of the illiterate population:- With a likely occurrence of 5 in every 10 illiterate men migrate in search of Skilled/ Semi - Skilled work, from the study area.*

*The proposed project providing opportunities to a total sum of 2000 workers. Hence in an experiment, to calculate the likely occurrence of Illiterate people not leaving the study area in search of work due to the opportunities provided by the proposed project = **1000** Local people (300 local people as staff and 700 local people as workers).*

#### **4.9.2 Impact on Employment**

S. No.	Existing variables/ situations of Socio-economic Issues.	Predict (adverse/ favorable) impacts (reasons for variations & bias of representative data).	Mitigation measures.
4	<b>Direct, (Local), long term, Employment generation.</b>	Approx. 200 Residents of the local region and tehsil will be put on roll	• Semi-skilled (local) will be trained to work in Steel





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	Magnitude of impact is moderate. A direct positive impact due to -better jobs & commercial activity. The proposed project generates employment for around 2000 people. Priority for employment is given to local persons.	for the proposed activity. Therefore, a minimum of approx. Rs. 1842.06 lacs of additional direct money incomes could be generated by the local people in the region through the operation of the project.	Plants as per their qualification and certifications. • A proper direction given to the villagers would help route the savings for growth.
5	<b>Indirect Employment</b> A permanent addition through industrial activities and logistics analysis of value chain will lead to commercial sales for end use. This would create Indigenous technologies for sustainable development. The transportation of the raw material & Finished goods will be carried out by using approx. 540 trucks / day.	Additional Indirect employment/ income : Value chain involving warehousing & Retail. <b>Logistics:</b> Approx. 50 trucks per day contributing additional employment to 3 locals by each Truck, (A trucker, navigator and helper) per truck. <b>CSR:</b> Developmental and social sustainable activities undertaken by Rounak Engineering Innovations Private Limited at the district level will indirectly involve employment of locals.	A total of approx. 150 people will find indirect employment/ income opportunities in the region both through logistics, up to retail thus creating the employment opportunity for the truck drivers and their helpers. And also through performing social responsibilities at the grass root level by the Project.

Employment Opportunity	No.	*Minimum earnings #(Rs.)
Unskilled	700	Rs. 5,84,43,000 (Calculated at the minimum wage rate for Skilled/day, Haryana last revised and applicable w.e.f. July,2022)253/Day
Semi skilled	350	Rs. 30,72,3000 (Calculated at the minimum wage rate for Skilled/day, Haryana last revised and applicable w.e.f. July,2022)266/Day
Skilled	650	Rs. 6,30,63,000 (Calculated at the minimum wage rate for Skilled/day, Haryana last revised and applicable w.e.f. July,2022)294 Rs/Day
Highly skilled	300	3,19,77,000 (Calculated at the minimum wage rate for Skilled/day, Haryana last revised and applicable w.e.f. July,2022)323Rs/day



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

129

209

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

<b>Total</b>	<b>200</b> <b>0</b>	<b>1842.06 Lakhs/- (Only Consider Operation Phase Employment Figure)</b>
--------------	------------------------	--

#### 4.9.3 Impact on Economic Diversity and Vitality

S. No	Existing variables/ situations of Socio-economic Issues.	Predict (adverse/ favorable) impacts (reasons for variations of representative data).	Mitigation measures.
1.	The socio-economic expectations of the villagers in the surrounding have minimalistic needs as the sources of employment and earning are not significant.	The project will contribute in regional economic growth through proposed industrial activity. Building social utility permanent structures, in the study area will contribute in regional up gradation.	The project will contribute in regional economic growth through proposed industrial activity
2.	Gross State Domestic Product Steel manufacturing activity is a major revenue generating sector of the region, to state and central Government. The proposed and associated activities in the Plant bearing areas bring about gains in gross state domestic product.	The project will continue contributing, though in a small measure, in bridging the gap between the supply and the demand of sponge iron in the region and the state of Haryana. Minor gains in GSDP*.	The manufacturing activity work would instill a sense of growth and opportunity. Optimum supply of domestic production required for building up of national infrastructure.

#### 4.9.4 Impact through Industrial Activity

S. No	Variables/ situations of Socio-economic Issues.	Predict (adverse/ favorable) impacts (reasons for variations & bias of representative data).	Mitigation measures. In numbers.
1.	Overexploitation of any natural resource, land or labor?	Labour Safety & welfare, Workers promotion and benefits are as per norms and the work environment in which the labour works are up to the industrial standards of Plant guidelines.	Labour employed will be constantly under health surveillance and remuneration with all concerned benefits and other policies will be as applicable to the Plant worker.
2.	Noticeable <b>Good will of the proponent and</b> Permanent Social Infrastructures.	Permanent structures and facilities with local people involvement are done by the PP on a daily basis and are to be continued. Revisable benefits for desirable positive impacts in the region and on the people are covered under the	The project is fulfilling its corporate social responsibilities as per its applicability w.r.t. to Section 135 of The Companies Act, 2013 and the activities area as per the Notification



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

		<p>following thrust areas on the need based assessment.</p> <ul style="list-style-type: none"> <li>• Water &amp; Sanitation (WASH)</li> <li>• School/ Education;</li> <li>• Social &amp; Cultural Harmony among various communities;</li> <li>• Infrastructure work;</li> <li>• Environment</li> <li>• Employment Opportunities</li> </ul>	<p>dated 27<sup>th</sup> February, 2014 in the Section 467 of the said act. Jyoti Strip Limited is investing in exemplary social responsibilities and doing the good work with public faith. has been in cooperation with the local govt. for various Corporate Social responsibilities as given in <b>Chapter- 6</b></p>
3.	<p>Commercial activity</p> <p>The socio-economic expectations of the villagers in the surrounding have minimalistic needs as the sources of employment and earning are not significant.</p>	<p>The manufacturing activity will foster trade &amp; commerce employment (round the year) to local people and contribute in the economic status of the area leading to more hopefulness and security.</p> <p>Leads to economic and psychological growth in the region.</p>	<p>More opportunities for placement of local youth will be identified by the CSR division of the Plant to provide income generation opportunities in the region.</p>

#### 4.9.5 Health & Related Impacts

S. No.	Variables/ situations of Socio-economic Issues.	Predict (adverse/ favorable) impacts (reasons for variations & bias of representative data).	Mitigation measures.
1.	Loss/ gain of health & fitness in short term (>1) or long term (<1).	No loss to human health is assessed in the short run (>1), long run (<1). Adequate measures of Human safety will be taken as per the Factories Act, Guidelines.	Medical camp will be organized for the Plant workers periodically.
2.	Human Rights It is clearly stated in as per the Human Rights, that the obligation of states is to promote universal respect for, and observance of, culture & religion.	No violation of Human Rights. The proposed project is/will follow universal respect for, and observance and protection of, human rights and fundamental freedoms for all.	The proposed project is/will promote neither selective, nor relative, but universal respect through contribution in various festivities, equal observance and protection among employees and societies at large in all activities.
3	Loss/gain of culture and religion	No loss of culture and religion is assessed.	--



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

4	Loss/ gain of political institutions	No loss of political institutions is assessed.	--
5	Loss/gain of view by study area inhabitants.	No loss of view to the passerby around the area.	Adequate landscaping and green belt development is and will be maintained in and outside the plant premises.
6	Loss/gain of psychological impact	Use of knowledge in commercial activities, bring hope in students at the learning stage for higher studies.	The Steel Plant and other plant activities instills a sense of employability and opportunity in local youth.

#### 4.9.6 Socio Economic Parameter Importance Impact Unit Profile

##### SPIU Matrix

Socio Economic Components	Parameter	Degree of Importance			Magnitude of Impact		
		High (3)	Medium (2)	Low (1)	High (+3)	Medium (+2)	Low (+1)
No loss of habitation as it is proposed project	30	3	:	:	+3	:	:
Nearest Habitation not in the Buffer Zone with respect to Wind flow direction	25	:	2	:	:	:	-1
Direct & Indirect Employment opportunities	25	3	:	:	:	+2	:
Other Local Commercial Opportunities	10	3	:	:	:	:	+1
Local, Regional Growth and Development	10	3	:	:	:	:	+1
No impact Archeological or protected monuments in 10.0 km	10	:	2	:	:	:	+1
Contribute to meet the rising Steel demand at regional level.	5	:	:	1	:	:	+1
No Loss/ gain of culture and religion. No Mixing up of Religious & Cultures Project not inviting	10	3	:	:	+3	:	:



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

Immigration of ethnic groups				
No Loss of self esteem of locals	5	:	:	1 - - +1
Project not delineating Emigration of ethnic groups	10	3	:	:
Project in Oneness with society/ No Isolation/ No Solitude of people/ Favors Social Interactions amongst human settlement	5	:	2	:
CSR/CER done Brand Equity with Locals Noticeable Good Will Commitment towards Proposed CER	10	:	2	:
<b>Total</b>	<b>155</b>			<b>+670</b>

SIU: +670

PIU: 1395

SPIU: +48.02

**TABLE-4.7: showing SPIU and its effects on Social Environment**

SPIU Score	Impacts/Effects	SPIU Score	Impacts/Effects
<b>Positive</b>		<b>Negative</b>	
0 to 25	Slightly Positive or Slightly Beneficial	0 to -25	Slightly Negative
+25 to 50	Moderately positive or Moderately Beneficial	-26 to -50	Moderately Negative
+50 to 75	Highly Positive or Highly Beneficial	-50 to -75	Highly Negative
+75 to 100	Extremely positive or Extremely Beneficial	-75 to -100	Extremely Negative

**4.9.7 Inference of Socio Economic Parameter Importance Impact Unit profile**

As there is zero (0) socio-economic threat and no negative impact assessed the proposed project is not harmful. As per the analysis of SIU profile, the regularization of proposed project leads to a Moderately Beneficial Impact with an average **48.02** SE PIU. The project expansion has a social importance, for the society and local commerce, and will have average positive impact on the socio- economic aspects.

<b>SIU</b>	<b>Inference</b>
------------	------------------



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

133

209

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

+25 to +50	<p><b>Moderately Beneficial Impact (MB)/ Moderate positive Impact (MP)</b></p> <p>These are actions that create or have a potential to create benefits in the community due to its long-term effect. Generally the beneficial impacts are of permanent nature with significant quantities.</p>
------------	--

#### 4.9.8 Socio - Economic Impact

- The project is investing in social responsibilities and doing the good work with public faith.
- Approx 62 local workers is/will get employment opportunities alongwith periodical training to generate local skills due to the proposed project.
- New patterns of indirect employment/ income through value chain involving warehousing, logistics, and CER.
- Permanent structures for employment creation with local people involvement through establishment of income generating activities.

The major thrust areas are	Activities as per the Notification
<ul style="list-style-type: none"> <li>➤ Medical &amp; Health</li> <li>➤ School/ Education</li> <li>➤ Livelihood Promotion</li> <li>➤ Infrastructure work</li> <li>➤ Drinking Water</li> <li>➤ Environment</li> <li>➤ Social</li> </ul>	<ul style="list-style-type: none"> <li>➤ Eradicating hunger, poverty and malnutrition, promoting preventive health care and sanitation and making available safe drinking water.</li> <li>➤ Promoting education, including special education and employment enhancing vocation skills, especially among children, women, elderly, and the differently - abled and livelihood.</li> <li>➤ Rural development projects.</li> <li>➤ Ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agro-forestry, conservation of natural resources and maintaining quality of soil, air and water.</li> </ul>

#### 4.10 EVALUATION FOR ALTERNATIVE SCENARIOS

##### 4.10.1 EIA WITHOUT EMP

**Table 4.8: Anticipated Environmental Impacts due to Operation Phase (without EMP)**

	<b>Project activities likely to affect environmental components</b>
--	---



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

Environmental components likely to be affected		Transportation of Raw Material /Finished Goods	Raw material use & Handling	Emission from processes	Emission from Machinery	Emission from DG Sets	Energy demand	Industrial Effluent from processes	Solid wastes from processes	Water extraction for processes	Greenbelt Development	Employment generation	Total impact
Air quality	M	-3	-2	-2	-1	-2	-2	-1	-1	-1	2	-1	<b>-31</b>
	I	3	2	3	2	2	3	1	1	1	2	1	
Noise and Vibration	M	-1	-1	-1	-1	-1	-1				2	-1	<b>-3</b>
	I	1	1	1	1	1	1				2	1	
Traffic	M	-2									2	-1	<b>1</b>
	I	1									2	1	
Surface water	M	-1							-1			-1	<b>-3</b>
	I	1							1			1	
Ground water	M						-2			-3			<b>-13</b>
	I						2			3			
Soil quality / erosion	M	-1	-1		-1				-1	-1	1		<b>-5</b>
	I	1	1		1				1	1	1		
Land use pattern	M	-1	-1		-1				-1	-1			<b>-6</b>
	I	1	1		1				1	1			
Terrestrial and Aquatic Habitat	M	-1					-1		-1	-1	1	-1	<b>-4</b>
	I	1					1		1	1	1	1	
Flora and Fauna	M	-1	-1	-1	-1		-2	-1	-1		2	-1	<b>-9</b>
	I	2	1	2	1		2	1	1		2	1	
Aesthetics	M	-2	-1	-2	-1		-2	-1	-1	-2	2		<b>-17</b>
	I	2	1	2	1		2	1	2	2	2		
Occupation Health and Safety	M	-1	-1	-2	-2	-1	-2	-1	-1		2	-1	<b>-14</b>
	I	2	1	2	2	1	2	1	1		2	1	
Resettlement & Rehabilitation	M												<b>0</b>
	I												
Socio-	M	-2	-1	-1	-1		-1	1	1		2	2	<b>-1</b>



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL 2024

135

215

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

<b>economic Environment</b>	<b>I</b>	2	2	2	2		2	1	2		2	2	
<b>Economy, trade and commerce</b>	<b>M</b>	2	2				2	1	1	1		2	<b>23</b>
	<b>I</b>	3	2				2	1	1	1		3	
<b>Total action impact</b>		<b>-22</b>	<b>-8</b>	<b>-19</b>	<b>-13</b>	<b>-6</b>	<b>-2</b>	<b>-6</b>	<b>-16</b>	<b>30</b>	<b>3</b>	<b>-81</b>	

This scenario was based upon the assumption that the proposed development would go ahead without any environmental management options being implemented. The total project impact for the scenario, as can be seen in above, was found to be -81 on a scale of (+/-) 2464. The score on a scale of (+/-) 100 for this scenario was found to be -3.29, which is on the minimally adverse side. This shows that if the project goes ahead without an EMP, the adverse impact on the existing environment would be several times that of the impact without the project. Thus, the EMP described in chapter 6 will have to be implemented to minimise the potential negative impact due to the proposed activity.

**4.10.2 EIA WITH EMP**

**Table 4.9: Anticipated Environmental Impacts due to Operation Phase (with EMP)**

Environmental components likely to be affected		Project activities likely to affect environmental components										Total impact
		Transportation of Raw Material /Finished Goods	Raw material use & Handling	Emission from processes	Emission from Machinery	Energy demand	Industrial Effluent from processes	Solid wastes from processes	Water extraction for processes	Employment generation	Green Area Development	
<b>Air quality</b>	<b>M</b>	-1	-1	-1	-1	-1	-1		-1	-1	2	<b>-3</b>
	<b>I</b>	1	1	1	2	1	1		1	1	3	
<b>Noise and Vibration</b>	<b>M</b>	-1	-1	-1	-1	-1				-1	2	<b>0</b>
	<b>I</b>	1	1	1	1	1				1	3	
<b>Traffic</b>	<b>M</b>	-1								-1	2	<b>4</b>
	<b>I</b>	1								1	4	
<b>Surface water</b>	<b>M</b>	-1						-1		-1		<b>-3</b>





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 4</b> <b>ANTICIPATED ENVIRONMENTAL IMPACT</b> <b>AND MITIGATION MEASURES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

	I	1						1		1		
<b>Ground water</b>	<b>M</b>					-2			-3			<b>-13</b>
	<b>I</b>					2			3			
<b>Soil quality / erosion</b>	<b>M</b>	-1			-1			-1	-1		<b>1</b>	<b>-2</b>
	<b>I</b>	1			1			1	1		<b>2</b>	
<b>Land use pattern</b>	<b>M</b>	-1			-1			-1	-1			<b>-4</b>
	<b>I</b>	1			1			1	1			
<b>Terrestrial and Aquatic Habitat</b>	<b>M</b>	-1				-1		-1	-1	-1	<b>1</b>	<b>-2</b>
	<b>I</b>	1				1		1	1	1	<b>3</b>	
<b>Flora and Fauna</b>	<b>M</b>	-1	-1	-1	-1	-2	-1	-1		-1	<b>2</b>	<b>-5</b>
	<b>I</b>	1	1	1	1	2	1	1		1	<b>3</b>	
<b>Aesthetics</b>	<b>M</b>	-2	-1	-2	-1	-2	-1	-1	-2		<b>2</b>	<b>-13</b>
	<b>I</b>	1	1	2	1	2	1	2	2		<b>3</b>	
<b>Occupation Health and Safety</b>	<b>M</b>	-1	-1	-2	-2	-2	-1	-1		-1	<b>2</b>	<b>-12</b>
	<b>I</b>	2	1	2	2	2	1	1		1	<b>3</b>	
<b>Socio-economic Environment</b>	<b>M</b>	2	1	-1	-1	-1	1	1		2	<b>2</b>	<b>12</b>
	<b>I</b>	2	2	2	2	1	1	2		2	<b>2</b>	
<b>Economy, trade and commerce</b>	<b>M</b>	3	2			2	1	1	1	3		<b>29</b>
	<b>I</b>	3	2			2	1	1	1	3		
<b>Total action impact</b>		<b>1</b>	<b>1</b>	<b>-13</b>	<b>-13</b>	<b>-16</b>	<b>-2</b>	<b>-5</b>	<b>-16</b>	<b>6</b>	<b>4</b> <b>7</b>	<b>-12</b>

If the environmental management strategies discussed in Chapter 6 is fully implemented, the adverse impact of the project would be reduced, and there will be an overall improvement in physical, chemical, biological and socio-economic environment of the region. This is reflected in the total project impact score of -12 on scale of (+/-) 2080, as shown in the Table with EIA, for this scenario. The score on a scale of (+/-) 100 for this scenario was found to be -0.57, which is on the minimally adverse. Therefore, the proposed activity will be beneficial for the environment of the area, provided the EMP is in place.

### Conclusions

With EMP, is/ will strictly adopted and implemented, the adverse impacts will be reduced and the overall environmental quality of the area would improve.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 4 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

#### 4.11 IMPACT ON OCCUPATIONAL HEALTH & SAFETY IN OPERATION PHASE

In operational phase, the all possible measures will be taken for the occupational health and safety. The PPE's, Medical checkups will be periodically in operational phase. Hence no impact is envisaged.

\*\*\*\*\*



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSP/IND/EC/2022-23/119

CHAPTER- 5  
ANALYSIS OF ALTERNATIVES

# CHAPTER-5

## ANALYSIS OF ALTERNATIVES

DRAFT FOR PH



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

139

219

**CHAPTER - 5****INDEX**

<b>5.1 INTRODUCTION .....</b>	<b>141</b>
<b>5.2 PROJECT SCENARIO .....</b>	<b>141</b>
<b>5.3 ALTERNATIVE SITE.....</b>	<b>141</b>
<b>5.4 TECHNICAL &amp; SOCIAL CONCERN .....</b>	<b>141</b>
<b>5.5 ALTERNATE TECHNOLOGY .....</b>	<b>142</b>
<b>5.6 CONCLUSION .....</b>	<b>142</b>

\*\*\*\*\*

DRAFT FOR PH



## CHAPTER- 5

### ANALYSIS OF ALTERNATIVES (TECHNOLOGY AND SITE)

#### 5.1 INTRODUCTION

This chapter illustrates an alternative analysis, including site and technology, considered for the proposed project.

#### 5.2 PROJECT SCENARIO

No other Project site was examined/considered as the project site is already converted for industrial use.

#### 5.3 ALTERNATIVE SITE

No other Project site was examined/considered as the project site is already converted for industrial use which lies is located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana. The site is suitable for proposed project based on following technical considerations:

- No Rehabilitation and Resettlement
- Flat terrain and soil strength
- Better connectivity via road, and railway line.
- Un-Interrupted power & water supply
- Availability of infrastructure
- Availability of manpower (Local people)
- No notified ecologically sensitive areas in vicinity of around 10 km radius.
- No major archaeological / Historical site is located around 10 km radius.
- No notified ecologically sensitive areas in vicinity of around 10 km radius.
- No major archaeological / Historical site is located around 10 km radius.

The proposed plant site has facilitate with infrastructure, road access to the site for ease of logistics and transportation to project site and fuel etc.

#### 5.4 TECHNICAL & SOCIAL CONCERN

The only concern technically due to the proposed operation particulate emission from the operation i.e., from Boiler and pickling plant, this is also largely controlled by air pollution control system in the form of Twin type fume scrubber which is proposed to be installed to



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 5 ANALYSIS OF ALTERNATIVES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

control the dust/ Particulate matter) and does not pose any concern to the pollution on ambient air environment. On the social front there aren't any negative concern, and if at all the existing will only have positive impact on the social fabric of the people or the region.

## 5.5 ALTERNATE TECHNOLOGY

No alternate technology is considered. The technology already adopted for cold rolling mill complex and it is one of the latest; best economically, environmentally friendly and proven technology.

## 5.6 CONCLUSION

The operation of the proposed project adopts system to have least impact on the environment, and thus have an overall positive impact on the society and the region.

\*\*\*\*\*



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

**CHAPTER- 6**  
**ENVIRONMENTAL MONITORING PROGRAMME**

DRAFT FOR PH



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

## CHAPTER - 6

### INDEX

6.1	INTRODUCTION.....	145
6.2	ENVIRONMENTAL MONITORING.....	145
6.2.1	OBJECTIVES OF MONITORING.....	145
6.2.2	MONITORING AND REPORTING PROCEDURE.....	146
6.2.2.1	Air Pollution and Meteorological Aspects.....	146
6.2.2.2	Wastewater Quality.....	146
6.2.2.3	Noise Levels.....	147
6.2.2.4	Monitoring Equipment and Consumables.....	147
6.3	ENVIRONMENTAL MONITORING DURING CONSTRUCTION PHASE.....	147
6.4	MONITORING SCHEDULE DURING OPERATIONAL PHASE.....	149
6.5	COST PROVISION FOR ENVIRONMENTAL MEASURES.....	152
6.6	INFRASTRUCTURE FOR ENVIRONMENTAL MONITORING.....	153
6.7	INSTITUTIONAL ARRANGEMENTS FOR ENVIRONMENT PROTECTION AND CONSERVATION.....	154

\*\*\*\*\*





PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

## CHAPTER - 6

### ENVIRONMENTAL MONITORING PROGRAMME

#### 6.1 INTRODUCTION

The Environmental Monitoring Programme is an integral part of Environmental Management System aimed to validate the environmental impacts, predictions and the effectiveness of mitigation measures.

Environmental Monitoring Program is execute to verify the accuracy of the environmental assessment for the Project and will be implemented during the construction and operational phase.

Depending on the nature of a project, during the construction and operation phase, environmental impacts will cause a change in the environment that is caused directly or indirectly by the activities associated with the proposed project.

In order to fully understand any potential changes in the environment, it is necessary to characterize the environmental conditions prior to any Project associated activities.

The purpose of monitoring is to compare the predicted and actual impacts, based on the scale of the impact and their prediction. The results of monitoring will be used to manage the environment, to assess the impacts so that preventive action will be taken.

#### 6.2 ENVIRONMENTAL MONITORING

The Environmental Monitoring is important in terms of evaluating the performance of Pollution Control Equipments will be installed in the plant. The sampling and analysis of the environmental parameters will be carried out as per the guidelines of Central Pollution Control Board (CPCB). The frequency of sampling and location of sampling will be as per the directives of CPCB. Regular monitoring programme of the environmental parameters is essential to take into account the changes in the environment.

##### 6.2.1 OBJECTIVES OF MONITORING

The objectives of monitoring are to: -

- To determine impact and prediction of the natural environment in order to select sampling station and frequencies;
- To determine the feasibility cost of a monitoring programme;
- Generation of baseline data to assess the potential impacts;
- To assess the effectiveness of Pollution Control Measures.

(a) Verifying the accuracy of the environmental assessment of a project, and



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

(b) Determining the effectiveness of any measures taken to mitigate the adverse environmental effects of the project”.

The attributes, which require regular monitoring, is as given below: -

1. Air quality;
2. Water and wastewater quality;
3. Noise levels;
4. Soil quality;
5. Plantation.

## 6.2.2 MONITORING AND REPORTING PROCEDURE

Regular monitoring is for crucial environmental parameters are of immense importance to assess the status of environment during operational phase. With the knowledge of baseline conditions, the monitoring program will serve as an indicator for any deterioration in environmental conditions due to operational phase and suitable mitigation steps will be taken in time to safeguard the environment. Environment Monitoring is as important as that of control of pollution since the efficiency of control measures will be determined by monitoring. The following routine monitoring program will be implemented under the post project monitoring. The proposed monitoring program is given below: -

### 6.2.2.1 Air Pollution and Meteorological Aspects

Both ambient air quality and stack emissions will be monitored. The ambient air quality will be monitored once in three months in the work zone, at the DG set location and surroundings through a reputed environmental laboratory recognized by CPCB/ NABL/ MoEF&CC. Similarly, the stack monitoring will be carried out once in three months and the results will be submitted to the Regional Office of IRO (MoEF&CC), once in a six month.

### 6.2.2.2 Wastewater Quality

The industrial and domestic waste water generated from the project will be monitored once in a three month for physico-chemical characteristics and same will be recycle in the process maintain the ZLD (Zero Liquid Discharge) from the plant site.



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

### 6.2.2.3 Noise Levels

Noise levels near at work zone and the DG sets will be monitored once in three months. The results of noise monitoring will help to implement the proper and adequate measure at plant for the effectiveness of noise reduction measures.

### 6.2.2.4 Monitoring Equipment and Consumables

A well-equipped laboratory with consumable items will be established for monitoring of environmental parameters. Alternatively, monitoring will be outsourced to a recognized laboratory.

## 6.3 ENVIRONMENTAL MONITORING DURING CONSTRUCTION PHASE

The Environmental Monitoring Cell of the construction team will be coordinating all the monitoring programs during the construction phase of the proposed project. The proposed monitoring schedule during the construction phase of the project is as given below:-

**Table No. 6.1: Environmental Monitoring Schedule during Construction Phase**

S. No.	Potential Impact	Action to be Followed	Parameters for Monitoring	Frequency of Monitoring
1	Air Emissions	All equipments are operated within specified design parameters.	Random checks of equipment logs/manuals.	Periodic
		Vehicle trips to be minimized to the extent possible	Vehicle logs	Periodic during site clearance & construction activities
		Any dry, dusty materials stored in sealed containers or prevented from blowing.	Absence of stockpiles or open containers of dusty materials.	Periodic during construction activities
		Ambient air quality within the premises of the proposed unit to be monitored.	The premises of the proposed unit to be monitored. PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC and HC.	As per CPCB requirement or on monthly basis whichever is earlier



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

2	Noise	List of all noise generating machinery onsite along with age to be prepared. Equipment to be maintained in good working order	Equipment logs, noise reading	Regular during construction activities
		Night working is to be avoided.	Working hour records	Daily records
		Generation of vehicular noise	Maintenance of records of vehicles	
		Implement good working practices (equipment selection and siting) to minimize noise and also reduce its impacts on human health (ear muffs, safe distances, and enclosures).	Site working practices records, noise reading	Periodic during construction activities
		No machinery running when not required.		Periodic during construction activities
		Acoustic mufflers/ enclosures to be provided in large engines	Mufflers/ enclosures will be in place.	Prior to use of equipment.
		Noise to be monitored in ambient air within the plant premises.	Spot Noise recording	As per CPCB requirement or on quarterly basis whichever is earlier
		All equipments operated within specified design parameters.	Random checks of equipment logs/ manuals	Periodic during construction activities
		Vehicle trips to be minimized to the extent possible	Vehicle logs	Periodic during construction activities
3	Wastewater Discharge	No untreated discharge	Domestic waste water to be Discharge though soak pit followed by septic tank	Periodic during construction activities



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

4	Soil Erosion	Minimize area extent of construction site by staying within the defined boundaries	Construction site boundaries not extended / breached as per planned document	Periodic during construction activities
5	Waste Management	Implement waste management plan that identifies and characterizes every waste arising associated with proposed construction activities and which identifies the procedures for collection, handling & disposal of each waste arising.	Integrate with waste management plan	Periodic check during construction activities
6	Non-routine events and accidental releases	Plan to be drawn up, considering likely emergencies and steps required to prevent/limit consequences.	Mock drills and records of the same	Periodic during construction activities
7	Health	Employee and migrant labour health check ups	All relevant parameters including HIV	Regular check up
8	Flora and fauna	Vegetation development as per Forest guidelines	No. of plants, species	During site clearance phase

#### 6.4 MONITORING SCHEDULE DURING OPERATIONAL PHASE

During operational stage, particulates will be main source of pollutant from both point sources and fugitive emissions. Along with the above the Boiler, Pickling plant and D.G. sets are also a potential source of emission. Following attributes which merit regular monitoring based on the environmental setting and nature of project activities are listed below:

- Source emissions and ambient air quality;
- Groundwater Levels and ground water quality;
- Water and wastewater quality (water quality, effluent & sewage quality etc);
- Soil quality;
- Noise levels (equipment and machinery noise levels, occupational exposures and ambient noise levels);
- Ecological preservation and afforestation.

The following routine monitoring programme as detailed in as under will be implemented at site. Besides to this monitoring, the compliances to all environmental



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

clearance conditions and regular permits from SPCB/MOEF&CC will be monitored and reported periodically.

**Table No. 6.2: Environmental Monitoring During Operational Phase**

S. No.	Potential Impact	Action to be Followed	Parameters for Monitoring	Frequency of Monitoring	Location
1	Air Emissions	<b>Ambient Air Quality Monitoring</b> 1 location at project site	PM, SO <sub>2</sub> , NO <sub>x</sub> & CO	Once in Quater	At least four locations
		<b>Exhaust from Vehicles</b> ➤ Use of fuel-efficient vehicles ➤ Maintenance of vehicles ➤ Use of only PUC certified vehicles.	Vehicle logs to be maintained	--	--
		Stack monitoring	PM, SO <sub>2</sub> , NO <sub>x</sub> & CO	Once in Quater	Point sources
2	Noise	Noise generated from various plant operations, vehicular to be optimized and monitored	Spot Noise Level recording; L <sub>eq</sub> (night), L <sub>eq</sub> (day), L <sub>eq</sub> (dn)	Once in a Quater	Near Main gate, Near Process area, DG etc.
		Generation of vehicular noise	Maintain records of vehicles	Periodic during operation phase	--
3	Wastewater Discharge	No untreated discharge to be made to surface water, groundwater or soil.	No discharge hoses in vicinity of watercourses.	Periodic during operation phase	--
		Take care in disposal of wastewater generated such that soil and groundwater resources are protected	Discharge norms for effluents will be maintained	Discharge norms for effluents will be maintained	ETP discharge water
		Compliance of treated wastewater usage/ discharge to standards	pH, TSS, TDS, BOD, COD, Oil & grease	Periodic during operation phase	One location (Treated Wastewater)
4	Drainage and	Ensure drainage system and specific design	Visual inspection of drainage and	Periodic during	--



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

S. No.	Potential Impact	Action to be Followed	Parameters for Monitoring	Frequency of Monitoring	Location
	effluent Management	measures are working effectively. Design to incorporate existing drainage pattern and avoid disturbing the same.	records thereof	operation phase	
5	Water Quality and Water Levels	Monitoring used water quality & groundwater quality and levels	Comprehensive monitoring as per IS : 10500 Groundwater level bgl	<b>Quality</b> -twice a year <b>Level</b> - Quarterly	Four locations surrounding project site
6	Energy Usage	Energy usage for air-conditioning and other activities to be minimized Conduct annual energy audit for the buildings	Energy audit report	Annual audits and periodic checks during operational phase	--
7	Emergency preparedness, such as fire fighting	Fire protection and safety measures to take care of fire and explosion hazards, to be assessed and steps taken for their prevention.	Mock drill records, on site emergency plan, evacuation plan	Periodic during operation phase	--
8	Maintenance of flora and fauna	Vegetation, Plantation / green cover development	No. of plants, species	Periodic during operation phase	--
9	Solid and Hazardous Waste Management	Implement waste management plan that identifies and characterizes every waste arising associated with proposed activities and which identifies the procedures for collection, handling & disposal of each waste arising.	Records of solid waste generation, treatment and disposal	Periodic during operation phase	--
10	Health	Employees and migrant	All relevant	Regular check	All workers



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

S. No.	Potential Impact	Action to be Followed	Parameters for Monitoring	Frequency of Monitoring	Location
		labour health check ups	parameters <ul style="list-style-type: none"> <li>➤ Routine Blood Examination.</li> <li>➤ Microscopic;</li> <li>➤ Biochemistry.</li> <li>➤ Routine Urine Examination.</li> <li>➤ Lung function test.</li> <li>➤ Sputum examination</li> <li>➤ Audiometry</li> <li>➤ X-ray</li> <li>➤ ECG</li> </ul>	ups	
11	Flora and fauna	Vegetation development as per Forest guidelines	No. of plants, species	During site operational phase	Project Site and nearby areas.

## 6.5 COST PROVISION FOR ENVIRONMENTAL MEASURES

For environment protection, management, pollution control, treatment and monitoring systems, appropriate budgetary provision would be made and provision for recurring expenditure for environment management of the project would be made. The details of budget allocation during functional phase are given in Table no. 6.3.

**Table No. 6.3: Cost Provision for Environmental Measures**

S. No.	Description of Item	Proposed capital cost (Lacs)	Proposed Recurring cost (Lacs)	Total proposed Capital Cost (Lacs)	Total proposed Recurring Cost (Lacs)	Remarks
1	Air Emission mitigation measure adopted for point source, area source and line source	1500	500	1500	500	Twin type fume scrubber, Water sprinkling
2	Water discharge mitigation measures to maintain ZLD with effectiveness	200	20	200	20	MEE with MBR technology will be proposed
3	Rain water Harvesting	200	20	200	20	--
4	Plantation Development	100	10	100	10	--





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

5	Fire fighting	1500	150	1500	150	Firefighting equipments as per NBC code are installed and FIRE NOC will be obtained.
6	Corporate Environmental Responsibility <i>*Any activity desired in the Final EIA /EMP report will be added.</i>	500	50	500	50	Reduction of carbon and emission trading will be projected
<b>Total</b>		<b>4000</b>	<b>770</b>	<b>4000</b>	<b>770</b>	--

## 6.6 INFRASTRUCTURE FOR ENVIRONMENTAL MONITORING

Following equipment and consumable items are already available at the project site to implement the monitoring program as given in as under: -

**Table No. 6.4: Proposed Equipment for Environmental Monitoring**

Name of Equipment	Purpose
Fine Dust Sampler/ Respirable Dust Sampler	AAQ monitoring
Automatic weather monitor	Meteorological data collection at site
Sound level meter	Noise levels
UV - Spectro photometer	Chemical analysis
pH meter	pH analysis
Pipette box	Chemical analysis
Titration set up	Chemical analysis
Relevant Chemicals	Chemical analysis
Stack monitoring kit	Stack Monitoring
CO and HC monitor	AAQ monitoring
Online VOC analyser	AAQ Monitoring



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 6 ENVIRONMENTAL MONITORING PROGRAMME
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119	

## 6.7 INSTITUTIONAL ARRANGEMENTS FOR ENVIRONMENT PROTECTION AND CONSERVATION

It is necessary to have a permanent organizational set up charged with the task of ensuring its effective implementation of mitigation measures and to conduct environmental monitoring. The major duties and responsibilities of Environmental Management Cell shall be as given below:

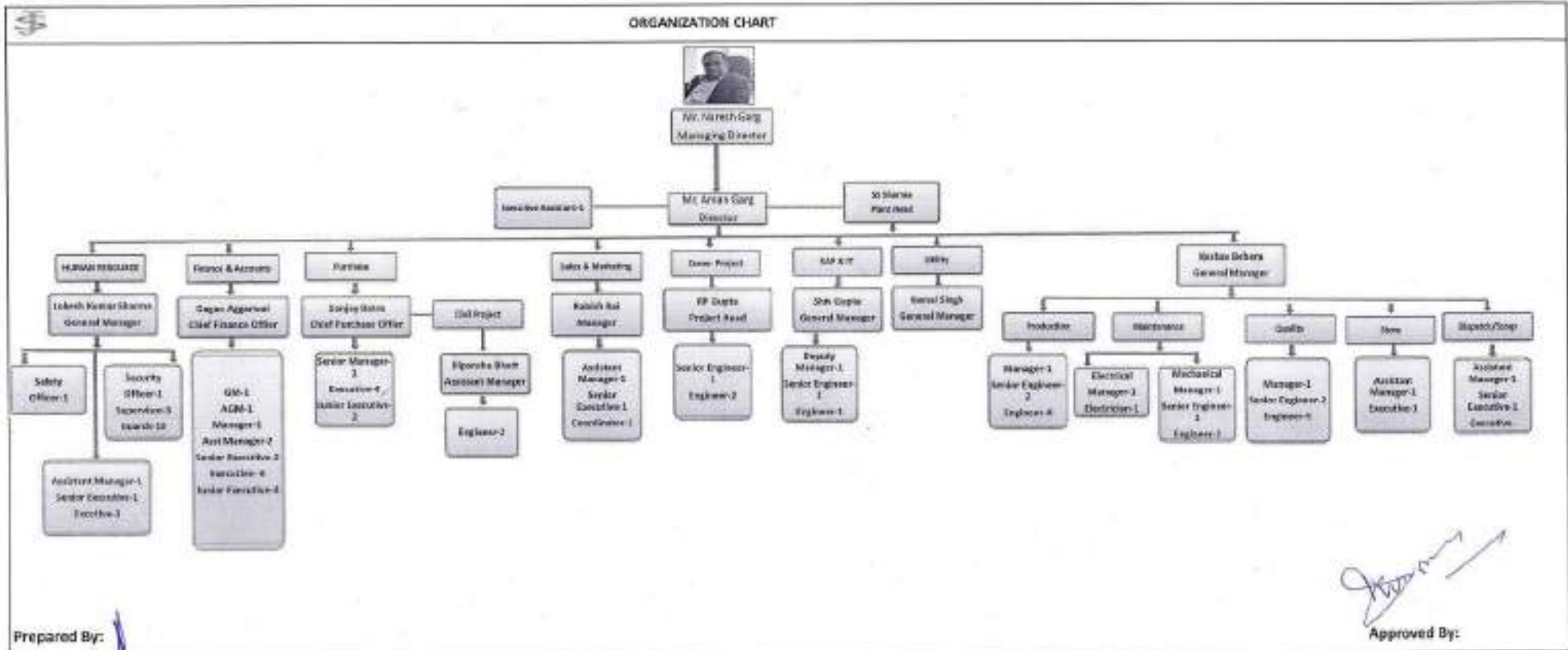
- To implement the environmental management plan,
- To assure regulatory compliance with all relevant rules and regulations,
- To ensure regular operation and maintenance of pollution control devices,
- To minimize environmental impacts of operations as by strict adherence to the EMP,
- To initiate environmental monitoring as per approved schedule.
- Review and interpretation of monitored results and corrective measures in case monitored results are above the specified limit.
- Maintain documentation of good environmental practices and applicable environmental laws as ready reference.
- Maintain environmental related records.
- Coordination with regulatory agencies, external consultants, monitoring laboratories.

Environment Management Cell is headed by a Proprietor and constitutes of Manager – EHS, Dy. Manager, chemists and helpers. The Organizational Structure of Environment Management cell is presented in Figure 6.0



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX  
 APPLICANT: JYOTI STRIPS PRIVATE LIMITED  
 DOCUMENT NO.- EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 6  
 ENVIRONMENTAL  
 MONITORING PROGRAMME



Prepared By:

Approved By:

Figure 6.0: Environmental Management Cel



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 7  
ADDITIONAL STUDIES

# CHAPTER-7

## ADDITIONAL STUDIES



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

157

238

**CHAPTER-7****INDEX**

<b>7.1 PUBLIC CONSULTATION .....</b>	<b>159</b>
<b>7.2 RISK ASSESSMENT .....</b>	<b>159</b>
7.2.1 Introduction .....	159
<b>7.3 HAZARD/RISK IDENTIFICATION .....</b>	<b>159</b>
<b>7.3 TYPE OF ACCIDENTS.....</b>	<b>160</b>
<b>7.4 RISK ASSESSMENT.....</b>	<b>162</b>
7.5 Risk Prevention Techniques.....	162
7.5.1 Safety and Health Measures .....	163
<b>7.6 DISASTER MANAGEMENT PLAN .....</b>	<b>165</b>
7.6.1 On- Site Emergency Plan .....	166
7.6.2 OFF-SITE EMERGENCY PLAN .....	175

\*\*\*\*\*



## CHAPTER- 7

### ADDITIONAL STUDIES

#### 7.1 PUBLIC CONSULTATION

This is a draft EIA/EMP report submitted for Public Hearing which will be conducted as per EIA Notification 14<sup>th</sup> September' 2006 and its subsequent amendments.

#### 7.2 RISK ASSESSMENT

##### 7.2.1 Introduction

Risk assessment study includes study of nature of hazards due to the proposed Cold rolling mill complex including operations involved in process. The study includes:

- Preliminary identification of hazardous area of the unit.
- Identification of accident sequences and consequences
- Visualization and Analysis of Maximum Credible Accidental scenarios.
- Estimation of damage criteria.
- Study of characteristics of risk levels through study of nature of exposure, pathways and consequences of maximum credible accidental scenarios and presentation of results in terms of risk contours.

Hazard identification provides information on onsite hazardous substances, their nature, quantities and details of storage. Preliminary hazard Identification is used to identify typical and often relatively apparent risk sources and damage events in a system. As each hazard is identified, the potential causes, effects, and severity of accidents and possible corrective and / or preventive measures are also listed.

#### 7.3 HAZARD/RISK IDENTIFICATION

##### **Hazardous Materials to be handled**

**Process hazards** due to loss of containment during handling of materials or processes resulting in fire, explosion, etc

**Mechanical hazards** due to "mechanical" operations such as welding, maintenance, falling objects etc. - basically those NOT connected to hazardous materials.

**Electrical hazards:** electrocution, high voltage levels, short circuit, etc. Out of these, the material and process hazards are the one with a much wider damage potential as compared to the mechanical and electrical hazards, which are by and large limited to very



small local pockets.

### 7.3 TYPE OF ACCIDENTS

#### A. Erection / Commissioning

During erection stage, most of the accidents occur due to;

- Human errors (unsafe acts and unsafe conditions)
- Improper laying of cables
- Improper Housekeeping (keeping combustible material near welding / gas cutting operations)
- Material handling
- Handling of tools
- Working at heights/elevated levels
- Material handling with equipments like crane, hydraulic pay loaders, JCB, Proclaim
- Earth moving and filling
- Unsafe electrical practices

#### B. Process Operations

The excessive pressure may lead to serious injuries at the site.

- Malfunctioning of equipment
- Power failures
- Failure to take corrective steps in time.
- Failure of utilities
- System failure
- Ageing of erection equipments
- Improper communication

#### C. Storage and Transfer Operations

- Accidents due to mechanical failure and external impacts.
- Static electricity
- Thunder and lightning
- On the job

#### 7.3.1 Accidents

- In the cold rolling industry, large amounts of material are processed, transported and conveyed by massive equipment that dwarfs that of most industries. Steel works typically have sophisticated safety and health programmes to address hazards in an



and maintenance practices, safe job procedures, worker training and use of personal protective equipment (PPE's) is usually required to control hazards.

- Burns may occur at many points in the process: at the front of the tunnel kiln
- Mechanical transport is essential in cold rolling mill but exposes workers to potential struck-by and caught-between hazards. Overhead travelling cranes are found in almost all areas of steel works. Most large works also rely heavily on the use of fixed-rail equipment and large industrial tractors for transporting materials.
- Safety programmes for crane use require training to ensure proper and safe operation of the crane and rigging of loads to prevent dropped loads; good communication and use of standard hand signals between crane drivers and slingers to prevent injuries from unexpected crane movement; inspection and maintenance programs for crane parts, lifting tackle, slings and hooks to prevent dropped loads; and safe means of access to cranes to avoid falls and accidents on crane transverse ways.
- Maintaining proper clearance for passage of large industrial tractors and other equipment and preventing unexpected start-up and movement are necessary to eliminate struck-by, struck-against and caught-between hazards to equipment operators, pedestrians and other vehicle operators. Programmes are also necessary for inspection and maintenance of equipment safety appliances and passageways.
- Good housekeeping is a cornerstone of safety in steel works. Floors and passageways can quickly become obstructed with material and implements that pose a tripping hazard. Large quantities of greases, oils and lubricants will be used and if spilled can easily become a slipping hazard on walking or working surfaces.
- Sharp edges or burns on steel products or metal bands pose laceration and puncture hazards to workers involved in finishing, shipping and scrap-handling operations. Cut-resistant gloves and wrist guards will be often used to eliminate injuries.
- Foreign-body eye hazards will be prevalent in most areas, especially in raw material handling and steel finishing, where grinding, welding and burning will be conducted.
- Programmed maintenance is particularly important for accident prevention. Its purpose is to ensure the efficiency of the equipment and maintain fully operative guards, because failure may cause accidents. Adhering to safe operating practices and safety rules is also very important because of the complexity, size and speed of process equipment and machinery.





## 7.4 RISK ASSESSMENT

Risk is assessed by: -

- Identification of potential hazard areas;
- Identification of representative failure cases;
- Visualization of the resulting scenarios in terms of fire (thermal radiation) and explosion;
- Assess the overall damage potential of the identified hazardous events and the impact zones from the accidental scenarios;
- Assess the overall suitability of the site from hazard minimization and disaster mitigation point of view;
- Furnish specific recommendations on the minimization of the worst accident possibilities; and
- Preparation of broad Disaster Management Plan (DMP), On-site and Off-site Emergency Plan, which includes Occupational Health and Safety Plan.
- Identifying potential risks to local people and local resources in the event of an emergency.

### 7.4.1 Risk Assessment Summary

The preliminary risk assessment has been completed for the proposed cold rolling mill and associated facilities and the broad conclusions are as follows:

- There will be no significant community impacts or environmental damage consequences; and
- The hazardous event scenarios and risks in general at this facility can be adequately managed to acceptable levels by performing the recommended safety studies as part of detailed design, applying recommended control strategies and implementing a Safety Management System.

## 7.5 Risk Prevention Techniques

- Education and awareness
- Training Programmes
- Best practices Risk Based Maintenance Planning
- Hazard identification
- Quantitative Hazard Assessment
- Probabilistic Hazard Assessment
- Risk Quantification



- Risk evaluation
- Setting up risk acceptance criteria
- Risk comparison
- Maintenance planning

### 7.5.1 Safety and Health Measures

#### Safety organization

- Safety organization is of prime importance in cold rolling industry, where safety depends so much on workers' reaction to potential hazards. The first responsibility for management is to provide the safest possible physical conditions, but it is usually necessary to obtain everyone's cooperation in safety programmes. Accident-prevention committees, workers' safety delegates, safety incentives, competitions, suggestion schemes, slogans and warning notices can all play an important part in safety programmes. Involving all persons in site hazard assessments, behavior observation and feedback exercises can promote positive safety attitudes and focus work groups working to prevent injuries and illnesses.
- Accident statistics reveal danger areas and the need for additional physical protection as well as greater stress on housekeeping. The value of different types of protective clothing will be evaluated and the advantages can be communicated to the workers concerned.

#### Training

- Training will include information about hazards, safe methods of work, avoidance of risks and the wearing of PPE. Before new methods or processes will be introduced, it may be necessary to retrain even those workers with long experience. Training and refresher courses for all levels of personnel are particularly valuable. They will be familiarized personnel with safe working methods, unsafe acts to be proscribed, safety rules and the chief legal provisions associated with accident prevention. Training will be conducted by experts and will make use of effective audio-visual aids. Safety meetings or contacts will be held regularly for all persons to reinforce safety training and awareness.

#### Engineering and administrative measures

- All dangerous parts of machinery and equipment will be securely guarded. A regular system of inspection, examination and maintenance is necessary for all machinery and equipment of the plant, particularly for cranes, lifting tackle, chains



and hooks. An effective lockout/tagout programme will be in operation for maintenance and repair. Defective tackle will be scrapped. Safe working loads will be clearly marked, and tackle not in use will be stored neatly. Means of access to overhead cranes will, where possible, be by stairway. If a vertical ladder must be used, it will be hooped at intervals. Effective arrangements will be made to limit the travel of overhead cranes when persons will be at work in the vicinity.

- There is a never-ending need for good housekeeping. Falls and stumbles caused by obstructed floors or implements and tools left lying carelessly. All materials will be carefully stacked, and storage racks will be conveniently placed for tools. Spills of grease or oil will be immediately cleaned. Lighting of all parts of the shops and machine guards will be of a high standard.

### Industrial hygiene

- Good general ventilation throughout the plant and local exhaust ventilation (LEV) wherever substantial quantities of dust and fumes will be generated or gas may escape are necessary, together with the highest possible standards of cleanliness and housekeeping.
- With a view to improving the work environment, induced ventilation will be installed to supply cool air. Local blowers may be located to give individual relief, especially in hot working places. Heat protection can be provided by installing heat shields between workers and radiant heat sources, Acclimatization leads to natural adjustment in the salt content of body sweat. The incidence of heat affections may be much lessened by adjustments of the workload and by well-spaced rest periods, especially if these are spent in a cool room, air- conditioned if necessary. Light meals will to be preferred during working hours. Salt replacement is needed for jobs involving profuse sweating and is best achieved by increasing salt intake with regular meals.
- Wherever possible, sources of noise will be isolated. Remote central panels remove some operatives from the noisy areas; hearing protection will be required in the worst areas. In addition to enclosing noisy machinery with sound-absorbing material or protecting the workers with sound-proofed shelters, hearing protection programmes have been found to be effective means of controlling noise-induced hearing loss.

### Personal protective equipment

- All parts of the body are at risk in most operations, but the type of protective wear



required will vary according to the location. Those working at furnaces need clothing that protects against burns-overalls of fire-resisting material, spats, boots, gloves, helmets with face shields or goggles against flying sparks and also against glare. Safety boots, safety glasses and helmets are imperative in almost all occupations and gloves are widely necessary. Strict supervision and continuous propaganda are necessary to ensure that personal protective equipment is worn and correctly maintained.

### Medical supervision

- Pre-placement medical examinations are of great importance in selecting persons suitable for the arduous work in iron and steel making. For most work, a good physique will be required: hypertension, heart diseases, obesity and chronic gastroenteritis disqualify individuals from work in hot surroundings. Special care will be needed in the selection of crane drivers, both for physical and mental capacities.
- Medical supervision will pay particular attention to those exposed to heat stress; periodic chest examinations will be provided for those exposed to dust, and audiometric examinations for those exposed to noise; mobile equipment operators will also receive periodic medical examinations to ensure their continued fitness for the job.

**Table 7.4: Details of Personnel Protective Equipment**

S. No.	Equipment
1.	Helmet
2.	Shoes
3.	Apron
4.	Ear plug
5.	Mask
6.	Goggle
7.	Gloves
8.	Spats

## 7.6 DISASTER MANAGEMENT PLAN

Rapid development has posed wide-ranging hazards threatening safety and health of people. Accidents may adversely affect the environment and the people living in the vicinity. These accidents can be minimized to a great extent by proper procedures, handling and



training but it may be difficult to reach zero risk or absolute safety level. Whenever such incidents do occur in order to prevent loss of lives and damage to property, it becomes necessary to take immediate steps to control the situation. This can be achieved through a planned advance preparation to face such a situation with respect to both on site and off site emergencies.

### 7.6.1 On- Site Emergency Plan

Name and address of the person furnishing the information

Name - Mr. Rohit Kushwaha

Designation of Occupier: Safety Officer

Address: Jyoti Strips Private Limited

Plot No. Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana **Mobile No.** -+91-9110067556

**Email:-** projectnew@jyotistrips.com

#### a) Objectives

The objective of the On-site Emergency Plan should be to make maximum use of the combined resources of the plant and the outside services to

- Effect the rescue and treatment of casualties
- Safeguard other personnel in the premises
- Minimize damage to property and environment
- Initially contain and ultimately bring the incident under control
- Identify any dead
- Provide for the needs of relatives
- Provide authoritative information to the news media
- Secure the safe rehabilitation of affected areas
- Preserve relevant records and equipment for the subsequent enquiry into the cause and circumstances of emergency

#### b) Action Plans

**The Action Plan should consist of:**

- Identification of Key Personnel
- Defining Responsibilities of Key Personnel
- Designating Emergency Control Centers and Assembly Points
- Declaration of Emergency
- Sending All Clear Signal



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 7  
ADDITIONAL STUDIES

- Defining actions to be taken by non-key personnel during emergency

**c) Key Personnel**

The actions necessary in an emergency will clearly depend upon the prevailing circumstances. Nevertheless, it is imperative that the required actions are initiated and directed by nominated people, each having specified responsibilities as part of coordinate plan. Such nominated personnel are known as Key Personnel.

The Key Personnel are:

- Site Controller (SC)
- Incidental Controller (IC)
- Liaison and Communication Officer (LCO)
- Fire and Security Officer (FSO)
- Team Leaders (TL)

**d) Site Controller (SC)**

In the emergency situation, decisions have to be taken which may affect the whole or a substantial part of the plant and even places outside. Many of these decisions will be taken in collaboration with the other officers at the plant and the staff. It is essential that the authority to make decision be invested in one individual. In this plan, he is referred to as the 'Site Controller'. The Factory Manager (however called) or his nominated deputy will assume responsibility as SC.

**e) Incident Controller (IC)**

In the emergency situation, someone has to direct the operations in the plant area and co-ordinate the actions of outside emergency services at the scene of incident. The one who will shoulder this responsibility is known as 'Incident Controller' in this plan. A Senior Operations Officer or an officer of similar rank of the unit may be nominated to act as the IC.

**f) Liaison and Communication Officer (LCO)**

Operations Officer or any other officer of deputy rank will work as LCO and will be stationed at the main entrance during emergency to handle Police, Press and other enquiries. He will maintain communication with the IC.

**g) Fire and Safety officer (FSO)**

The Fire and Safety Officer will be responsible for firefighting. On hearing the fire alarm he shall contact the fire station immediately and advise the security staff in the plant and cancel the alarm. He will also announce on PAS (public Address System) or convey



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL 2024

167

through telephones or messengers to the SC, IC and LCO about the incident zone. He will open the gates nearest to the incident and stand by to direct the emergency services. He will also be responsible for isolation of equipment from the affected zone.

A number of special activities may have to be carried out by specified personnel to control as well as minimize the damage and loss. For this purpose designated teams would be available. Each team will be headed by a Team Leader (TL). Following teams are suggested:

- Repair Team
- Fire Fighting Team
- Communication Team
- Security Team
- Safety Team
- Medical Team

#### **h) Responsibilities of Key Personnel Site Controller (SC)**

- On getting information about emergency, proceed to Main Control Centre
- Call in outside emergency services
- Take control of areas outside the plant, which are affected
- Maintain continuous communication, review situation and assess possible course of events
- Direct evacuation of nearby settlements, if necessary
- Ensure that casualties are getting enough help
- Arrange for additional medical help and inform relatives
- Liaison with Fire and Police Services and Provide advice on possible effects on outside areas
- Arrange for chronological recording of the emergency
- Where emergency is prolonged, arrange for relieving personnel, their catering needs etc.
- Inform higher officials in head office
- Ensure preservation of evidence
- Direct rehabilitation work on termination of emergency

#### **i) Incident Controller (IC)**

- On getting emergency information, proceed to Main Control Centre
- Activate emergency procedure such as calling in various teams
- Direct all operations within plant with following priorities:



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 7  
ADDITIONAL STUDIES

- ❖ Control and contain emergency
- ❖ Secure safety of personnel
- ❖ Minimize damage to plant, property and the environment
- ❖ Minimize loss of material
- Direct rescue and repair activities
- Guide fire-fighting teams
- Arrange to search affected area and rescue trapped persons
- Arrange to evacuate non-essential personnel to safe area/assembly point
- Set up communications network and establish communication with SC
- Arrange for additional help/equipment to key personnel of various teams
- Consider need for preserving all records, information for subsequent enquiries

**j) Liaison and Communications Officer**

- To ensure that casualties receive adequate attention, arrange additional help if required and inform relatives
- To control traffic movements into the plant and ensure that alternative transport is available when need arises
- When emergency is prolonged, arrange for the relief of personnel and organize refreshments/catering facility
- Advise the Site Controller of the situation, recommending (if necessary) evacuation of staff from assembly points
- Recruit suitable staff to act as runners between the Incident Controller and himself if the telephone and other system of communication fail. –Maintain contact with congregation points
- Maintain prior agreed inventory in the Control Room
- Maintain a log of the incident on tape
- In case of a prolonged emergency involving risk to outside areas by windblown materials - contact local meteorological office to receive early notification of changes in weather conditions

**k) Fire and Safety Officer**

- Announce over the PAS in which zone the incident has occurred and on the advice of the Shift Officer informs the staff to evacuate the assembly
- Inform the Shift Officer In-charge, if there is any large escape of products
- Call out in the following order:



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

169



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 7  
ADDITIONAL STUDIES

1. Maintenance Officer
2. Personnel and Administrative Officer
3. Departmental Head in whose area the incident occurred
4. Team Leaders (TL)

### l) Emergency Control Centre

The Emergency Control Centre will be the focal point in case of an emergency from where the operations to handle the emergency are directed and coordinated. It will control site activities. Emergency management measures in this case have been proposed to be carried from single control Centre designated as Main Control Centre (MCC)

MCC is the place from which messages to outside agencies will be sent and mutual aids and other helps for the management of emergency will be arranged. It will be located in the safe area. It will be equipped with every facility for external and internal communication, with relevant data, personal protective equipments to assist hose manning the centre to enable them to co-ordinate emergency control activities. CC will be attended by SC.

Following facilities would be available in the MCC:

- P&T phones, mobile phones, intercoms, and wireless
- Fax and telex
- Emergency manuals
- Blown up area maps
- Internal telephone directories
- District telephone directories
- Emergency lights
- Wind direction and speed indicator
- Requisite sets of personal protective equipment such as gloves, gumboots and aprons
- MCC will be furnished with call out list of key persons, fire, safety, first aid, medical, security, police and district administrative authorities. MCC will also contain safety data pertaining to all hazardous materials likely to cause emergency and well-defined procedures of fire fighting, rescue operations, first aid etc.

### m) Assembly Point

In an emergency, it will certainly be necessary to evacuate personnel from affected areas and as precautionary measure, to further evacuate non-essential workers, in the first instance, from areas likely to be affected, should the emergency escalate. The evacuation will



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

170

be effected on getting necessary message from i.e. On evacuation, employees would be directed to a predetermined safe place called Assembly Point. Proposed Location: Area opposite to service building will be the Assembly Point where all non-key personnel would assemble on getting direction over Public-Address System. Outdoor assembly points, predetermined and premarket, will also be provided to accommodate evacuees from affected plant area(s). Roll call of personnel collected at these assembly points, indoor and outdoor will be carried out by roll call crew of safety team to account for any missing person(s) and to initiate search and rescue operations if necessary.

#### n) Declaration of Emergency Mutual Aid

**Procedure:** All factories may not be equipped with an exhaustive stock of equipment/materials required during an emergency. Further, there may be a need to augment supplies if an emergency is prolonged.

It would be ideal to pool all resources available in the and nearby outside agencies especially factories during an emergency, for which a formal Mutual Aid scheme should be made among industries in the region.

#### Essential Elements

Essential elements of this scheme are given below:

- Mutual aid must be a written document, signed by Location In-charge of all the industries concerned
- It should specify available quantity of materials/ equipment that can be spared (not that which is in stock)
- Mode of requisition during an emergency.
- It should authorize the shift-in-charge to quickly deploy available material/equipment without waiting for formalities like gate pass etc.
- It should spell out mode of payment/replacement of material given during an emergency
- It should specify key personnel who are authorized to requisition materials from other industries or who can send materials to other industries
- It should state clearly mode of receipt of materials at the affected unit without waiting for quantity/quality verification etc.
- Revision number and validity of agreement should be mentioned
- This may be updated from time to time based on experience gained

#### Emergency Management Training



The Key Personnel would undergo special courses on disaster management. This may preferably be in-plant training. The Factory Managers, Senior Officers and Staff would undergo a course on the use of personal protective equipment. The Key Personnel belonging to various Teams would undergo special courses as per their expected nature of work at the time of emergency. The plant management should conduct special courses to outside agencies like district fire services to make them familiar with the plant layout and other aspects, which will be helpful to them during an emergency

### Mock Drills

It is imperative that the procedures laid in this Plan are put to the test by conducting Mock Drills. To avoid any lethality, the emergency response time would be clocked below 2 minutes during the mock drill.

**1st Step:** Test the effectiveness of communication system

**2nd Step:** Test the speed of mobilization of the plant emergency teams

**3rd Step:** Test the effectiveness of search, rescue and treatment of casualties

**4th Step:** Test emergency isolation and shut down and remedial measures taken on the system

**5th Step:** Conduct a full rehearsal of all the actions to be taken during an emergency

The Disaster Management Plan would be periodically revised based on experiences gained from the mock drills. The on-site emergency organization chart for various emergencies is shown in Fig 1.

### Fire Fighting System

- Fire water is sourced from the raw water storage tanks of adequate capacity.
- An exclusive pipeline connecting water storage tank and plant area (vulnerable areas) with adequate pump is envisaged to fight any fires.
- Fire water pump containing combination of diesel and electrically driven pumps.
- Portable and mobile extinguishers, such as pressurized water type, carbon dioxide type, foam type, dry chemical powder (DCP) type located at strategic locations throughout the plant.

**Table 7.5: Details of Fire Fighting Equipment**

S. No.	Particular	Quantity
1.	ABC powder type extinguishers	46 Nos
2.	CO2 Fire type extinguishers	29 Nos.
3.	Sand Bucket	16 Nos.
4.	Main fire pump	2 Nos.
5.	De Driven pump	1 Nos.



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 7  
ADDITIONAL STUDIES

6.	Jockey pump	2 Nos.
----	-------------	--------

**TABLE 7.6 :- LIST OF EMERGENCY TELEPHONE NUMBERS**

EMERGENCY CONTACT NUMBER		
Sr. No.	Particulars	Helpline Number
1	Police Station	100
2	Fire Brigade Station	101
3	Ambulance	102
4	Disaster Management	108
5	One Emergency Number	112

Apart from this, all the employees are provided with helmets and safety shoes. It is statutory on the part of the company employees to wear the appropriate safety gear given while attending duty in the factory.

#### **Other safety Measures**

Considering that fire and explosion is the most likely hazard in such installations, the plant will provided with systems to guard against such hazards. Salient among these are:

A proper layout to prevent and minimize the effects of any hazardous situation

- Provision of operating systems to conduct the process through well-established safe operating procedures
- Provision of a fire protection system to control fire
- Provision of flame-proof lighting system in the fire prone areas
- The First Aid Medical Centre is proposed. It will be fully equipped with emergency facilities. It will be open round the clock. Adequate number of first aid boxes will be kept at strategic locations. Required stock of first aid medicines will be maintained.

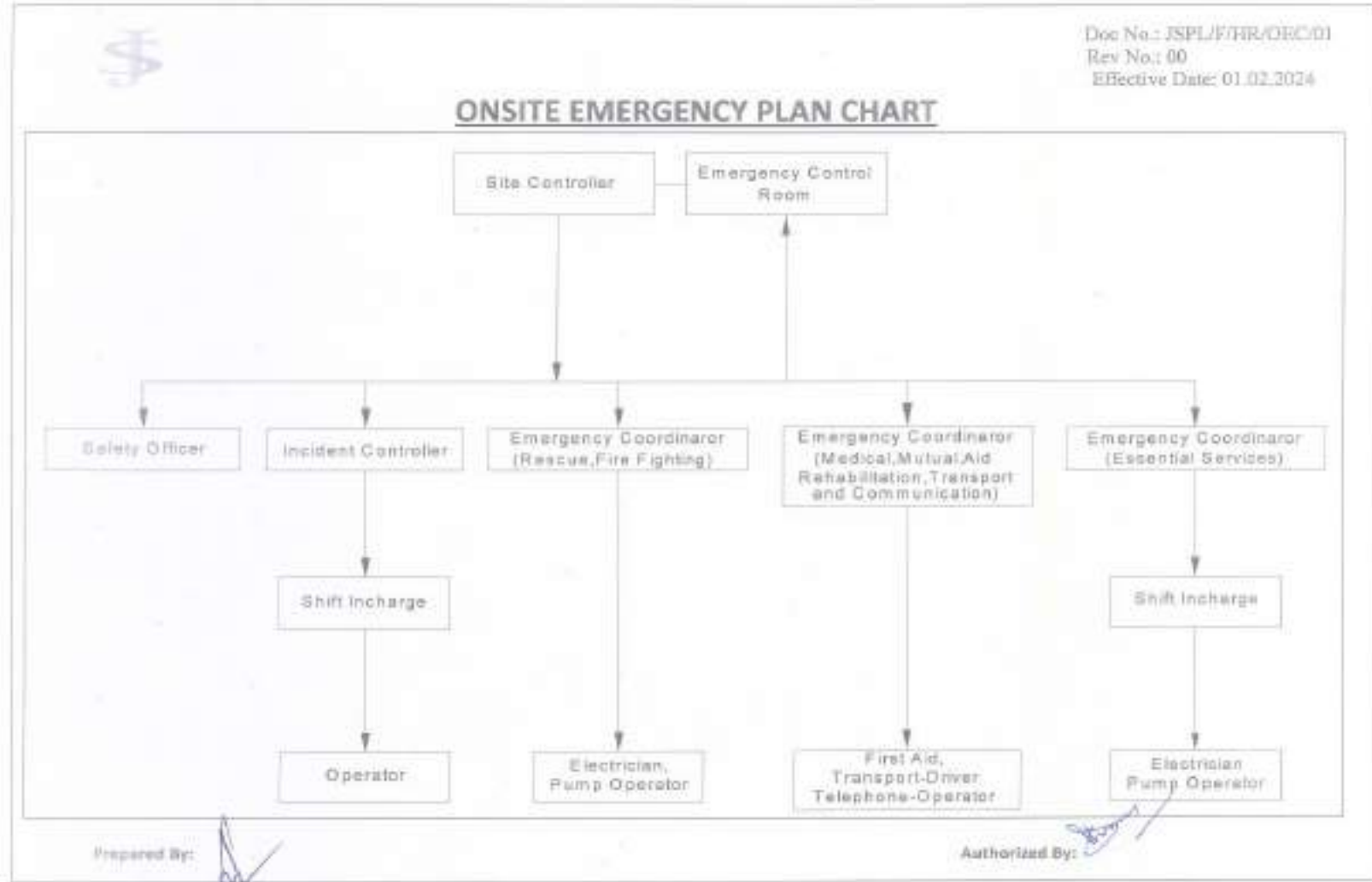


ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

173

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	<b>CHAPTER- 7</b> <b>ADDITIONAL STUDIES</b>
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	



**Figure No. 7.2.: On-Site Emergency Organization Chart**

ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR



APRIL'2024  
289

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 7 ADDITIONAL STUDIES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## 7.6.2 OFF-SITE EMERGENCY PLAN

The off-site emergency plan deals with measures to prevent and control. Emergencies within the factory and not affecting outside public or environment.

### a) Fire Services

To combat fire and carry out other emergency operations as per the need In case of fire, the fire brigade is the best help from outside. Even in a disaster not involving fire, the fire brigade could be of good help, inside the plant and outside, in view of their specialized equipments and expertise in rescue and relief.

#### Responsibilities

- To reach the accident spot as soon as possible with all necessary equipments to extinguish the fire.
- To provide all other necessary help depending on nature of emergency.

### b) Police

To manage and control the mob, violence, sabotage or outbreak if any; Cordoning of the area and help in firefighting and other emergency operations.

In case of emergency the police department has a number of functions to perform; these are:

#### Responsibilities

- Maintain law and order situation near the Depot premises.
- To control the traffic to facilitate the victims to reach hospitals as early as possible.
- To restrict entry of any unauthorized persons.
- To set up communication to assist in disaster management operation.
- To take control of surrounding transport facilities and assist in disaster management operation by shifting injured persons and casualties to nearby hospitals.
- To assist in firefighting and other emergency operations.

### c) Hospital

Prompt and efficient medical aid is important in an emergency situation. The first center inside the Depot cannot cope up with all the treatment requirements; the right approach to this problem is to have arrangements with nearby hospitals so that in case of an emergency, services and facilities available with the nearby hospitals can be utilized.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 7 ADDITIONAL STUDIES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

### Responsibilities

- Depute doctors and nurses to site with ambulance.
- To provide immediate medical relief to casualties.
- Augmentation of equipments, drugs and doctors.
- To provide first aid on the spot to casualties.
- To take all out efforts on war footing to save maximum lives.
- To continue treatment to casualties till all of them are attended and properly shifted to medical centers.

### d) Medical Facilities

The nearest medical facilities are available in palwal. The other medical facilities available from outer agencies are as follows:

#### Antidotes and emergency medicines

General medicine such as antiseptic, analgesic, Anti-Snake Venom etc available in the first aid Centre.

The other local hospitals available in nearby cities are given below and specialist doctors are available in these hospitals.

**Table-7.7: Details of hospital in nearby Plant site**

S. No.	Name	Distance (From Project Boundary)	Direction
<b>Medical Facility</b>			
1.	Nobel Charitable Hospital - GT Road, Prithla	1.16 Km	W
2.	ESI Dispansary Prithla	1.67 Km	WNW
3.	Shri Hari Hospital, Tatarpur	1.67 Km	WNW

### e) District Collectorate/ Administration

- To supervise of all off-site emergency operations; order to evacuate off-site population.
- Local administration means those who are responsible for administration of the geographical area where the Depot is located.

#### Responsibilities

- To protect the citizens.
- To assess the situation for overall control.
- To monitor the functioning and need of various agencies in rescue operation at site.
- To requisite and make available the services and facilities available in the area like hospitals, doctors, transport, police, fire brigade and so on.



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 7 ADDITIONAL STUDIES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

- To coordinate the activities outside the Depot in view of their authority and experience in coordinating rescue and relief operations.

#### f) RTO

To clear all approach roads to and from corporation area for free flow of vehicular traffic, which is engaged in combating the emergency and demarcate parking area for vehicles to evacuate population.

#### g) Controller of Explosives & Factory Inspectorate

- To provide expert advice and help in coordinating emergency operations with government agencies.
- The inspector of factories is expected to be a friend and a guide to industrial establishments. His involvement is a matter of course, since he would be officially connected with inquires after the disaster.

#### Responsibilities

- To coordinate with local govt. body e.g. collectorate, civil hospital, police department etc. as well as surrounding voluntary organizations.
- To act as Off-site emergency controlling authority.
- To inform public for precautionary measures.

#### h) Voluntary Organizations

- Voluntary organizations could help in relief and humanitarian services to victims in case of any emergency.

#### Responsibilities

- To assist in rescue operations and first aid to the victims.
- To arrange transport, refreshment and shelter.
- To take necessary assistance from social organizations like Red Cross Society, Scouts, NCC, Rotary, Lions clubs etc.

#### i) Other Installations near to the site

Industrial installations or oil installations present near the site should help to combat the fire with the firefighting equipments present in their locations.

#### Responsibilities

- To provide the strongest possible support and resources to the plant managers so that the best accident prevention and emergency preparedness procedures are in place in the industrial facility.
- To encourage their facility managers to commit themselves fully to the





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 7 ADDITIONAL STUDIES
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

awareness and preparedness for emergencies at local level process.

- To monitor the involvement of their facilities in the process.

### **Safety training of personnel and mock drill / rehearsing emergency procedures**

On appointment of every personnel it is essential to provide training to cope with all types of perceived emergencies. Training is to be provided for:

- Properties and hazards of the steel industry as given in the report.
- Knowledge, location and use of fire fighting and protective equipments.
- Emergency actions for various emergency scenarios.
- Many organizations use table-top exercises to test their emergency plans. These are very cost-effective because they do not interrupt the day today running of the plant and because the organizer of the exercise can "arrange" for a variety of difficulties to be taken.
- Full-scale exercises, providing a realistic rehearsal setting, will still be needed to complement the tabletop exercises.

### **Longer Term Clean Up**

- I. Regular cleaning and housekeeping is practiced in the Plant.
- II. Find out the causes for an accident/disaster.
- III. Calculate economical as well as material losses.
- IV. Provide the necessary facilities to the causalities.

\*\*\*\*\*



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

CHAPTER- 8

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

PROJECT BENEFITS

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

# CHAPTER-8

## PROJECT BENEFITS

DRAFT FOR PH



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL/2024

179

258

**CHAPTER-8****INDEX**

<b>8.1</b>	<b>PROJECT BENEFITS .....</b>	<b>181</b>
<b>8.2</b>	<b>ENVIRONMENTAL BENEFITS .....</b>	<b>181</b>
<b>8.3</b>	<b>IMPROVEMENTS IN INFRASTRUCTURE .....</b>	<b>181</b>
<b>8.3.1</b>	<b>IMPROVEMENTS IN THE PHYSICAL INFRASTRUCTURE.....</b>	<b>181</b>
<b>8.3.2</b>	<b>IMPROVEMENTS IN THE SOCIAL INFRASTRUCTURE .....</b>	<b>182</b>
<b>8.4</b>	<b>EMPLOYMENT POTENTIAL -SKILLED; SEMI-SKILLED AND UNSKILLED.....</b>	<b>182</b>
<b>8.4.1</b>	<b>Direct Employment .....</b>	<b>182</b>
<b>8.4.2</b>	<b>Indirect Employment.....</b>	<b>183</b>
<b>8.5</b>	<b>OTHER TANGIBLE BENEFITS .....</b>	<b>183</b>

\*\*\*\*\*



## CHAPTER- 8

### PROJECT BENEFITS

#### 8.1 PROJECT BENEFITS

The proposed project is for Proposed Cold Rolling Mill Complex which is highly demanded in the states like, Haryana, Uttar Pradesh, Gujarat, Rajasthan etc. These states are the led by development as it is facing mega infrastructure projects.

#### 8.2 ENVIRONMENTAL BENEFITS

- The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.
- Twin type fume scrubber is proposed to be installed to control emissions from the manufacturing process
- The solid waste generated from the process at plant site is Sent to Nearest Municipal Council.
- 318.75 KLD water generation in the process will be sent to ETP1 & ETP2. Treated water from ETP 1 and ETP 2 will be sent to WRP-RO followed by MEE (ZLD plant)
- The overall treated water of 270KLD is reused after treatment in COC to Cooling Tower.
- Domestic sewage 75 KLD will be treated STP (Capacity-100KLD) and 37.5 KLD of Treated water will be reused in plantation. And 30 KLD will be recycled for flushing purposes.
- No waste water will be disposed of on ground outside the plant premises.
- Installed LED Lights at admin building and street lights inside the plant premises.

#### 8.3 IMPROVEMENTS IN INFRASTRUCTURE

##### 8.3.1 IMPROVEMENTS IN THE PHYSICAL INFRASTRUCTURE

The proposed project of cold rolling mill complex will have numerous induced impacts on society such as growth in schools, hospitals, hotels & resorts, transport etc. It will also attract business, tourism and other entrepreneur to establish their venture in the region. The project will improve the physical infrastructure of the adjoining areas. This will include the following: -



- Rain water Harvesting structure is proposed to augment the water availability for plantation;
- Skill development & capacity building like vocational training to persons for income generation;
- Awareness program and community activities, like health camps, family welfare programs, immunization camp, plantation etc.

### 8.3.2 IMPROVEMENTS IN THE SOCIAL INFRASTRUCTURE

The social infrastructure will develop with the positive externalities like better educational and health facilities, Bus stations, railway stations, play grounds, stadium, religious places (temple, mosque, church, gurdwara); marriage homes, creation of new employment opportunities will be improved due to the induced impact of the proposed project of cold rolling mill complex.

Following are the benefits in specific area of social domain: -

**Socio-Economic:** - There will be positive impact in socio-economic area due to increased economic activities, creation of new employment opportunities, infrastructural development and better educational and health facilities.

**Health Care Facilities:** - Company will undertake awareness program and community activities like health, camps, family welfare camps etc.

**Employment Potential:** - There is a possibility of creation of direct and indirect employment opportunities due to working of this plant.

### 8.4 EMPLOYMENT POTENTIAL -SKILLED; SEMI-SKILLED AND UNSKILLED

#### 8.4.1 Direct Employment

During the operational phase, about 2000 people will be employed directly. Considering that some of the skilled personnel to be employed for the project will be from outside the area and un-skilled/ semi-skilled personnel will be from within the study area, the project will add to the wellbeing of the area. In addition to the workforce the indirect employment will also be generated for local persons. It will help in bringing prosperity to the area.

Category	Proposed	Total
Permanent staff	300	300
Skilled worker	650	650
Semi-skilled workers	350	350
Unskilled workers	700	700



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 8 PROJECT BENEFITS
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

Total	2000	2000
-------	------	------

#### 8.4.2 Indirect Employment

The industrial activity will provide indirect employment to the people of nearby area of project site. Some people will get engaged in some pet shops like tea shop, vehicle repair centre etc. The project also provides some need-based opportunity to the local public.

- The increased employment through transportation, warehousing, loading and unloading of container / material will provide indirect agency employment.
- Development of Ancillary industries. Transportation and warehousing in the region would eventually be needed more therefore truckers and jobs in logistical activities will increase.
- The products available will provide agency employment in the value chain analysis, which will add place utility and retail in the domestic market.

There would be additional development of ancillary industries or opportunities for example:

- Small petty businesses
- Scrap Trading
- Demand for Communication facilities.

This would create Indigenous Technologies for sustainable development.

#### 8.5 OTHER TANGIBLE BENEFITS

The other tangible benefits include demonstrating process and system cost savings, compliant inspections and customer audits, faster product approvals and manufacturing throughput, less rejected material, reduced nonconformance issues, and more efficient continuous improvement and project implementation. Intangible benefits include improved staff morale, faster, more accurate transparent decision making, less employee turnover, increased staff accountability, and an enhanced culture of quality throughout the organization.

\*\*\*\*\*



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 9 ENVIRONMENTAL COST BENEFIT ANALYSIS
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

**CHAPTER-9**  
**ENVIRONMENTAL COST BENEFITS**  
**ANALYSIS**



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

184

269

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 9 ENVIRONMENTAL COST BENEFIT ANALYSIS
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## CHAPTER-9

### INDEX

9.1	Environmental Cost Benefit Analysis.....	185
-----	--	-----

\*\*\*\*\*



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

185

260



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 9 ENVIRONMENTAL COST BENEFIT ANALYSIS
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

## CHAPTER - 9

### ENVIRONMENTAL COST BENEFITS ANALYSIS

#### 9.1 Environmental Cost Benefit Analysis

##### Environmental Concerns

It is essential to mention that emissions generated from cold rolling mill processes are mostly air emissions and solid wastes. Though this industry does not contribute to significant amount of liquid effluent, but inefficient use of water resources especially ground water in Palwal (OE Block) areas may lead to depletion of ground water resources. The other concern in the unit is release of high carbon dioxide generation.

##### POLICY ISSUES AND DIRECTIVES FOR GOOD PRACTICE

The growing pollution from the cold rolling mills units is of great concern, therefore a suitable policy should be formulated and implemented to ensure environmentally sound operation of such units.

The State Pollution Control Boards directives should be adhered for pollution control and clean operation of these units. The following guidelines will be adhered to:

1. Optimize usage of water.
2. Adopting rainwater harvesting system.
3. Ensuring effective operation of air pollution control devices.
4. Avoiding opening of After Burning Chamber cap for a considerable period during power cuts.
5. Disposing off Bag filter refuse regularly; avoiding storage of coal char, coal fines in open space.
6. Providing
7. water sprinkling arrangement at strategic points to avoid re-suspension of particulate matter.
8. Good housekeeping like paving roads inside the factory premises and regular cleaning of such road.
9. Developing adequate green area

The cost incurred as part of EMP will add benefits to the unit on running time which can be derived after proper implementation of the above measures to add to the environmental cost benefit analysis.

\*\*\*\*\*



PROJECT: DRAFT EIA/EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 10  
ENVIRONMENTAL MANAGEMENT  
PLAN

# CHAPTER-10

## ENVIRONMENTAL MANAGEMENT PLAN



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

187

268

**CHAPTER-10  
INDEX**

<b>10.1</b>	<b>INTRODUCTION .....</b>	<b>189</b>
<b>10.2</b>	<b>Description of Administrative Aspect.....</b>	<b>189</b>
10.2.1	Environment Management Cell.....	189
10.2.2	Vision, Mission & Environment Policy .....	190
<b>10.3</b>	<b>CRITICAL ACTIVITIES FOR EMP IMPLEMENTATION .....</b>	<b>190</b>
<b>10.4</b>	<b>ENVIRONMENT MANAGEMENT DEPARTMENT .....</b>	<b>190</b>
<b>10.4.1</b>	<b>Environmental department policies .....</b>	<b>190</b>
<b>10.4.2</b>	<b>Environmental department structure.....</b>	<b>191</b>
<b>10.5</b>	<b>ENVIRONMENTAL ACTION PROGRAMME.....</b>	<b>193</b>
<b>10.6</b>	<b>PLANTATION DEVELOPMENT.....</b>	<b>201</b>
<b>10.7</b>	<b>CREP GUIDELINES.....</b>	<b>203</b>

\*\*\*\*\*

**CHAPTER -10**

ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

188

263

## ENVIRONMENTAL MANAGEMENT PLAN

### 10.1 INTRODUCTION

The Environmental Management Plan (EMP) is a site specific plan developed to ensure that the project is implemented in an environmental sustainable manner where all contractors and subcontractors, including consultants, understand the potential environmental risks arising from the proposed project and take appropriate actions to properly manage that risk. It is required for formulation, implementation and monitoring of environmental protection measures during and after commissioning of projects. The plans should indicate the details as to how various measures have been or are proposed to be taken including cost components as may be required. Cost of measures for environmental safeguards should be treated as an integral component of the project cost and environmental aspects should be taken into account at various stages of the projects. EMP also ensures that the project implementation is carried out in accordance with the design by taking appropriate mitigative actions to reduce adverse environmental impacts during its life cycle. The plan outlines existing and potential problems that may adversely impact the environment and recommends corrective measures where required. Also, the plan outlines roles and responsibility of the key personnel and contractors who are charged with the responsibility to manage the proposed Plant.

#### Aims of EMP

- Overall conservation of environment.
- Judicious use of natural resources and water.
- Safety, welfare and good health of the work force.
- Ensure effective operation of all control measures.
- Vigilance against probable disasters and accidents.

### 10.2 Description of Administrative Aspect

#### 10.2.1 Environment Management Cell

JSPL Board committee periodically review compliance report of all norms, clauses, laws applicable to the company and the step taken by the company to rectify instances of non-compliance if any.

Plant head provide & support training to implementation of the environmental policy, share good practices with unit head and ensure that environmental policy is implemented as per plant procedure. Plant head provide all resources for environmental function so that the system of compliances achieved. Manager Environment department



is responsible for all the activities related to environmental issues and concerns and coordinates with unit head. Unit head shall reports to the board of director on the important environmental issues and concerns with respect to compliances, clearances, and certification etc.

### 10.2.2 Vision, Mission & Environment Policy

#### VISION

Our vision is to emerge as one of the strongest and most reliable cold rolling mill complex with a diversified product base to meet the demands of our customers.

#### MISSION

Our mission is to fulfill our promise of delivering quality to our customers and building long lasting relationships to fulfill their needs ensuring new success and sustained returns.

### 10.3 CRITICAL ACTIVITIES FOR EMP IMPLEMENTATION

1. Training and Environmental Awareness;
2. Documentation and record keeping;
3. Reporting Procedures;
4. Stakeholder/ Project Proponent engagement;
5. Auditing;
6. Responding to Non-compliance.

### 10.4 ENVIRONMENT MANAGEMENT DEPARTMENT

#### 10.4.1 Environmental department policies

The unit will ensure the following activity

##### a. Commitment & Policy

The proposed project management is/will strive to provide and implement the Environmental Management Plan that incorporates all issues related to air, land and water.

##### b. Planning

This includes identification of environmental impacts, legal requirements and setting environmental objectives. The various potential impacts are discussed under Chapter- 4 of the EIA Report.

##### c. Implementation

This comprises of resources available to the proponents, accountability of contractors, training of operational staff associated with environmental control facilities and documentation of measures to be taken.



**d. Measurement & Evaluation**

This includes monitoring, corrective actions, and record keeping.

**10.4.2 Environmental department structure****i. Environment management cell:**

- The Company has an Environment Management Cell, headed by a Manager. Trained engineers shall be responsible for incident free operation of all pollution control devices and the enforcement of any rules / laws applicable.
- The staff of the company is regularly exposed to training & refresher courses and the subject of Environment Management & Pollution Control is also dealt with in detail. The company has well equipped laboratory to regularly monitor its discharges. It is proposed to continue these practices.

**ii. Environment Monitoring Laboratory:**

- The industry has a well-equipped Quality Assurance Laboratory to consistently ensure the highest quality of products. A section of this laboratory has been dedicated to Pollution & Environment Monitoring.
- Effluent quality tests will be carried out regularly.
- The company does not have adequate facilities for Air / Stack testing, as yet. Its present monitoring is conducted by external agencies that have the approval of MOEF&CC and SPCB.

**iii. Library**

- Books on environment & monitoring
- Records/drawing
- Collection of standards/norms/guidelines/notification etc.

**iv. Safety, health, fire services and security**

- For the supervisors and workers

**v. Training facility**

- For the supervisors and workers

**vi. Maintenance**

Response time for emergency maintenance, spare availability and routine programme of maintenance

- Disaster Management Plan (DMP)
- On-site Emergency Management Plan
- Risk Assessment (RA)
- Environmental Audit (EA)



**vii. Monitoring data**

- Ambient air quality with meteorological data/information
- Ambient noise level
- Receiving water quality up-stream and down-stream of treated wastewater disposal point (if any / applicable)
- Ground water quality in and around factory
- Storm water disposal facility inside & outside the factory

**viii. Plantation development**

- Plants selection of Local species
- Plantation covered area
- Future plan, if any

**ix. Waste Management**

- Recovery,
- Recycle and
- Reuse

**x. Performance study of waste management**

- Identification of shortcomings
- Finding out proper remedial measures
- Implementation time frame

**xi. Material balance**

- Mass Balance

**xii. Identification of hazardous installations**

- list with details of hazardous installations
- measures, in case of unforeseen release of pollutants
- Was there any episode discharge of pollutants in past?
- experience
- remedial measures
- strategy to be adopted based on experience

**xiii. Prepare an environment check list to review environmental safeguard**

- House keeping
- Complaints
  - Complaints received, if any
  - Accident occurred in last two years
- Compliance of standards



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

CHAPTER- 10

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

ENVIRONMENTAL MANAGEMENT

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

PLAN

Copy of water consent

Copy of air consent

Copy of authorization of hazardous wastes

- Comply with the standards, stipulations, guidelines etc.
- If not, indicate deviations with reasons for the same
- Find difficulty in complying with the conditions of consent letters.

#### xiv. EC COMPLIANCE SCHEDULE WITH ENVIRONMENTAL STATEMENT AND AUDIT

EC Compliance will be submitted six monthly by June 1 and December 1, every year to the regional office of the Ministry of Environment and Forests and the appropriate regulatory authority.

Environmental statement (Form-V) and audit report for the financial year ending will be submitted on 31st March on or before 30th of September every year.

### 10.5 ENVIRONMENTAL ACTION PROGRAMME

The management of "Jyoti Strips Private Limited." is quite conscious of its responsibility for maintaining clean and a healthy environment. The management is also keen to modify and make more efficient measures towards suppression of pollution sources. Lot of adequate funds for Pollution Control Measures are provided as a part of overall project financing to ensure the availability of proper treatment facilities during the commissioning of the unit. The overall capital investment for the EMP activities for the proposed project will be Rs.4000 lacs (capital) and Rs. 770 Lacs (Recurring). The breakup of the proposed project cost for Environment Management Programme is given as under: - The proposed Environment Management plan for the unit is summarized in the below table:

**Table No. 10.1: Fund allocated for Environment Protection Measures**

S. No.	Description of Item	Proposed Capital Cost (Lacs)	Proposed Recurring Cost (Lacs)	Remarks
1	Air Emission mitigation measure adopted for point source, area source and line source	1500	500	Twin type fume scrubber, Water sprinkling
2	Water discharge mitigation measures to maintain ZLD with effectiveness	200	20	MEE with MBR technology will be proposed
3	Rain water Harvesting	200	20	--
4	Plantation Development	100	10	--
5	Fire fighting	1500	150	Firefighting equipments as per NBC code are installed and FIRE NOC will be obtained.
6	Corporate Environmental Responsibility <i>*Any activity desired in the Final EIA /EMP report will be added.</i>	500	50	Reduction of carbon and emission trading will be projected



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

193

268



Total	4000	770	--
-------	------	-----	----

**Table. 10.2: Environment Management Plan during Construction and Operation phase**

Construction phase				
S. No.	Source	Environmental Component	Management Plan	Remarks
1.	Excavation, construction, debris	Land	<ul style="list-style-type: none"> <li>➤ Topsoil will be conserved and used for landscaping.</li> <li>➤ Reutilization and recycling of construction debris</li> </ul>	-
2.	Dust emission from excavation, air emission from machinery	Ambient Air Quality	<ul style="list-style-type: none"> <li>➤ Regular sprinkling of the water will be done along with the construction activities.</li> <li>➤ Periodic maintenance of construction equipment.</li> <li>➤ Use of good quality fuels.</li> <li>➤ Use of Personal Protective Equipments</li> </ul>	Impacts will be temporary during construction phase and confined to short distances, as coarse particles will settle within the short distance from activities.
3.	Surface runoff from project site. Oil/fuel and waste spills. Improper debris, domestic sewage water	Water	<ul style="list-style-type: none"> <li>➤ Silt fences to reduce run-off. Altering the slope</li> <li>➤ The domestic sewage generated during the construction activity will be routed to Modular STP.</li> </ul>	No perennial surface water resource adjacent to site.
4.	Noise generated from construction activities and operation of construction equipment and DG sets	Noise	<ul style="list-style-type: none"> <li>➤ Use of well maintained equipment.</li> <li>➤ Heavy construction activity limited to day- time hours only. Use of noise mufflers in and construction vehicle.</li> <li>➤ Use of earplugs/muffs by construction staff.</li> <li>➤ Regular preventing maintenance of machinery and transportation of vehicles during construction to reduce noise pollution.</li> <li>➤ Provision of silencer, to modulate the noise generated by the machine, if required.</li> </ul>	Temporary impacts during Construction phase.



			➤ Reduce the exposure time of workers to the higher noise level by job rotation.	
5.	Construction activities and Excavation	Aesthetic & biological	➤ The impacts will be compensated by tree plantation and gardening in the premises and along the both side of roads	
6.	Construction Phase	Occupational Health and safety	➤ Construction of temporary sheds for construction workers mobilized by the contractors. ➤ Work spots will be maintained clean, provided with optimum lighting and enough ventilation to eliminate dust/fumes.	The safety department will supervise the safe working of the contractor and their employees.
7.	Construction Phase	Socio- Economic	➤ Management will give preference to local people through both direct and indirect employment	Positive impact

**Operation phase**

Particulars	Mitigation Measures						
<b>A. Air Emissions:</b> 1. Boiler (10 Ton/hr) 2. Pickling plant 3. DG Set (1000 kVA- 2 Nos)	<b>Point Sources:</b> 1. Boiler - 2. Pickling plant: - 3. DG Set; - <b>Management:</b> <ul style="list-style-type: none"> <li>Boiler (LPG Fired) having capacity of 10 TPH is attached to 30 m. stack height.</li> <li>Flue gases during pickling are routed into a Twin type fume scrubber through 30.0 m stack height.</li> <li>The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> </ul>						
<b>B. DG Sets- 1000 kVA 2 No.</b>	<ul style="list-style-type: none"> <li>DG Set having capacity of 2Nos.1000 KVA is attached to 30m stack height (Fuel- Natural Gas ).</li> </ul>						
<b>C. Vehicular Emission</b>	Emissions of vehicle exhausts include SO <sub>x</sub> , NO <sub>x</sub> , CO from combustion of fossil fuels will be envisaged for transportation of raw material and finished goods. 3000 Nos. (1500 for Raw Materials + 1500 for Finished Goods) of Vehicles will be used for the project. Transportation details for proposed project is given below:						
	<table border="1"> <thead> <tr> <th>Transportation Details</th> <th>Total (No's)/month</th> </tr> </thead> <tbody> <tr> <td>Truck/ Trailer (20 MT &amp; 40MT) for Raw materials</td> <td>1500 (Diesel)</td> </tr> <tr> <td>Trucks/ Trailer (20 MT &amp; 40MT) for finished goods</td> <td>1500 (Diesel &amp; CNG)</td> </tr> </tbody> </table>	Transportation Details	Total (No's)/month	Truck/ Trailer (20 MT & 40MT) for Raw materials	1500 (Diesel)	Trucks/ Trailer (20 MT & 40MT) for finished goods	1500 (Diesel & CNG)
Transportation Details	Total (No's)/month						
Truck/ Trailer (20 MT & 40MT) for Raw materials	1500 (Diesel)						
Trucks/ Trailer (20 MT & 40MT) for finished goods	1500 (Diesel & CNG)						



<b>Management:</b>						
Source		Management				
Transportation		<ul style="list-style-type: none"> <li>➤ PUC certified vehicles will be used;</li> <li>➤ Vehicles used for transporting raw materials are driven by High Speed Diesel and vehicles used for transporting finished goods are driven by CNG &gt;50% of vehicles.</li> <li>➤ Speed limit of 10Km/hr. is/will be maintained in the plant premises.</li> <li>➤ The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> <li>➤ Good House Keeping is/ will be maintained.</li> </ul>				
<b>Fugitive Emissions from materials handling including storage or transport (other raw materials)</b>	<b>Material Handling:</b>					
	<ul style="list-style-type: none"> <li>➤ The fugitive emission during handling of Scrap, loading and unloading point, transfer points and storage area.</li> <li>➤ Transportation</li> <li>➤ Dust generation is envisaged as all the internal roads inside the plant premises.</li> </ul>					
		<b>Management:</b>				
		<ul style="list-style-type: none"> <li>➤ Proper House Keeping will be done. Sweeping of roads will be done.</li> <li>➤ All paved roads are already developed with both side of plantation.</li> <li>➤ Periodically, water sprinkling on paved road will moisten the surface to prevent the fugitive dust.</li> <li>➤ Speed limit is also restricted up to 10 km/hr.</li> </ul>				
<b>Odors from sewage</b>	Sewage / Waste: - The domestic sewage is treated within the proposed STP by using Sequential batch reactor technology (Capacity-100 KLD) at plant site and treated water will be used for plantation and flushing purpose to reduce the fresh water consumption. Mitigation measure Good housekeeping is being practice and same practice will be adopted.					
<b>Hazardous waste generation</b>	<b>Hazardous Waste Quantity in TPA</b>					<b>Treatment/ disposal</b>
	<b>Type of Waste</b>	<b>Schedule</b>	<b>Code</b>	<b>Proposed</b>	<b>Total</b>	
	Chemical Sludge from waste water treatment (TPA)	1	35.3	16000	16000	
	Used Oil or Spent Oil	1	5.1	200	200	
	Iron oxide	1	5.2	4000	4000	Send to registered recyclers
<b>Solid waste Generation</b>	The solid waste generation and their disposal are as follows:					
	<b>Particulars</b>	<b>Waste Quantity in TPD</b>			<b>Treatment/ disposal</b>	
		<b>Type of Waste</b>	<b>proposed</b>	<b>Total</b>		
	Sludge TPA	STP Sludge	0.5	0.5	Used as manure for plantation	
	Municipal Solid Waste (@0.125 Kg/ day	Biodegradable	0.25	0.25	Sent to Nearest Municipal site	



	Scrap from Process	Scrap	181.81	181.81	Sold to Local market
--	--------------------	-------	--------	--------	----------------------

Water Environment During Operation Phase	Waste water Generation is as given under:				
	S. No.	Liquid Effluents	Quantity	Unit	Mode of Treatment/ Disposal
	1	Domestic Sewage	75	KLD	Domestic waste water 75KLD treated in STP (Capacity-100KLD) and 37.5 KLD of Treated water will be reused in plantation. And 30 KLD will be recycled for flushing purposes.
	2	Trade Effluent	318.75	KLD	<p>Stage-1: The effluent generation from industrial process is 127.5 KLD will be treated in ETP-1 (160KL capacity) of low COD and low TDS</p> <p>Stage-2: spent and coolant waste water of 48.75KL will be treated in ETP-2 (65KL Capacity) of high COD and high TDS</p> <p>Treated water from ETP 1 and ETP 2 will be sent to WRP-RO followed by MEE (ZLD plant)</p> <p>The overall treated water of 270KLD is reused after treatment in COC to Cooling Tower.</p> <p>No waste water will be disposed of on ground outside the plant premises.</p>

Noise Pollution During Operation Phase	<p><b>Sources of Noise:</b></p> <ul style="list-style-type: none"> <li>Fans, motors/engines, Loading/Unloading Scrap, Noise due to Heavy Equipment Operations.</li> </ul> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>All equipment's will be procured meeting the permissible noise standards.</li> <li>The insulation provided for prevention and loss of heat and PPE will also act as noise reducer.</li> <li>Foundations and structures will be designed to minimize vibrations and noise.</li> <li>Regular equipment maintenance and better work habits is will be adopted.</li> <li>D.G. set is housed in an inbuilt acoustic enclosure with stack height as per CPCB norms.</li> </ul>
--	--



	<ul style="list-style-type: none"> <li>Necessary safety and personal protective equipment such as ear plugs, ear muffs, helmet etc will be provided to the workers.</li> <li>Implementation of Plantation within the premises of plant will absorb the noise. Thus will help to control the noise pollution.</li> <li>Proper lubrication and housekeeping will be usually done to avoid excessive noise generation.</li> <li>Supervisor will be responsible to control the noise by maintaining conditions of machineries and silencers.</li> <li>Use of ear protective devices.</li> <li>The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019 No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</li> </ul>
<p><b>Rain water Harvesting Plan</b></p>	<ul style="list-style-type: none"> <li>The Rain water Collected from Roof Top and paved areas will be collected through Channels and Sent to Rain water Harvesting Pits.</li> <li>Six rain water harvesting structure are proposed with the capacity of 32.4 m3/hr.</li> </ul>
<p><b>Occupational Health and Safety</b></p>	<p><b>Health Hazards:</b></p> <ul style="list-style-type: none"> <li>➤ Major physical hazards in cold rolling mill plant are caused by fumes and dusts, smoke, molten metal and noise.</li> <li>➤ High priority health hazards are particulates, were identified as causes of the most significant risks in the work environment.</li> <li>➤ Fire and explosions.</li> </ul> <p><b>Hazards:</b></p> <ul style="list-style-type: none"> <li>➤ <b>Process hazards</b> due to loss of containment during handling of materials or processes resulting in fire, explosion, etc.</li> <li>➤ <b>Mechanical hazards</b> due to "mechanical" operations such as welding, maintenance, falling objects etc. - basically those NOT connected to hazardous materials.</li> <li>➤ <b>Electrical hazards:</b> electrocution, high voltage levels, short circuit, etc. Out of these, the material and process hazards are the one with a much wider damage potential as compared to the mechanical and electrical hazards, which are by and large limited to very small local pockets.</li> </ul> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>➤ Enclose and isolate potential sources of air emissions to the work zone to the extent practical;</li> <li>➤ Monitor worker exposure using personal occupational hygiene sampling devices;</li> <li>➤ Providing training and encourage good personal hygiene, and prohibiting smoking and eating at the worksite;</li> <li>➤ Automate processes and material handling to the extent practical and provide enclosures for operators;</li> </ul> <p><b>WORK AREA SAFETY &amp; HEALTH PRECAUTIONS:</b></p>



	<ul style="list-style-type: none"> <li>➤ Provision of fire-resistant gloves</li> <li>➤ Face &amp; Eye protection to prevent splashing</li> <li>➤ Approved respirators to prevent inhaling of fumes</li> <li>➤ Provision of adequate ventilation &amp; exhausts</li> <li>➤ Adequate storing facility with defined inventory</li> <li>➤ Adequate Wet scrubbing system with suitable scrubbing solution</li> <li>➤ Periodic Inspection of Equipment/Machinery.</li> </ul>
Socio-Economic Aspect	<ul style="list-style-type: none"> <li>• There is a possibility of creation of direct and indirect employment opportunities due to working of this plant.</li> <li>• Direct employment of 2000 Nos to the local people which help to sustain their livelihood.</li> <li>• During the operational phase by the implementation of certain CER activities indirect employment will also generate.</li> <li>• Apart from this, movement of trucks for carrying raw materials in, and products around 40 Persons will get employment as Driver and Cleaner, out will bring outside workers of supply chain into the area regularly, and will provide additional business to local vendors in the form providing food, and their other day to day requirements, thus generating additional income to <ul style="list-style-type: none"> <li>• the local businesses.</li> <li>• Improved livelihood.</li> <li>• Training will be provided to the local persons.</li> <li>• Awareness programme will be organized.</li> </ul> </li> </ul>
Health and Safety	<p><b>Health and Safety :</b></p> <p>Following measures will be adopted in the plant: -</p> <ul style="list-style-type: none"> <li>• Regular inspection and maintenance of Pollution Control Equipment.</li> <li>• All workers related to safety such as safety appliances, training, safety awards, posters, slogans will be undertaken.</li> <li>• The workers exposed to noisy sources will be provided PPE's.</li> <li>• Adequate facilities for drinking water and toilets will be provided to the employees.</li> <li>• The fire and safety equipment will be properly utilized and maintained regularly.</li> <li>• Company will undertake awareness program and community activities like health, camps, family welfare camps etc.</li> <li>• Regular medical check-up of workers.</li> </ul>
E-Waste Management	<ul style="list-style-type: none"> <li>• There is no generation of E-waste within the plant premises.</li> </ul>
Plastic Waste Management	<ul style="list-style-type: none"> <li>• There is no generation of plastic waste within the plant premises.</li> </ul>
Biological Environment	<ul style="list-style-type: none"> <li>➤ To mitigate adverse impact on the biodiversity and to improve habitat status of the study area:-</li> <li>➤ The proposed green area inside the plant premises is 36077.10 sq. mtr (28.35%) with 9019</li> </ul>



	<p>No.s of plants @ 2500 trees/ha. The deficit plantation of about 4.65% will be done in container plantation within the project site to achieve total 33% plantation as per norms.</p> <ul style="list-style-type: none"> <li>➤ At present total 12 no. of trees/shrubs of different species are present in area.</li> </ul>
Proposed Green Area Development	<ul style="list-style-type: none"> <li>➤ In proposed project area plantation will be developed as per the Guidelines of MoEF &amp; CC of around 2500 trees/Ha of land shall planted. Total 9019 nos. of trees will be planted.</li> <li>➤ Plantation will be done all along the road and Plant boundary and other suitable location within plant premises.</li> <li>➤ Plantation will be start along the construction work.</li> </ul>
Techniques for Green Area Development	<p>Combination of plant is selected depending upon the topographical suitability and species selected as per CPCB Guideline. The soil characteristics will be kept in mind. Based on this and environmental conditions suitable native plants species have been proposed for year wise plantation programme.</p>
Design of Green Area	<p>Selection of plants will also take into consideration of the following factors:</p> <p><b>a.</b> For absorption of gaseous emissions:</p> <ul style="list-style-type: none"> <li>➤ Tolerance towards pollutants in question, at concentrations, that are not too high to be instantaneously lethal, Longer duration of foliage,</li> <li>➤ Freely exposed foliage, through Adequate height of crown,</li> <li>➤ Openness of foliage in canopy,</li> <li>➤ Big leaves (long and broad laminar surface)</li> <li>➤ Large number of stomata apertures</li> <li>➤ Stomata well- exposed (in level will the general epidermal surface)</li> </ul> <p><b>b.</b> For the removal of suspended particulate matter:</p> <ul style="list-style-type: none"> <li>➤ Height and spread of crown</li> <li>➤ Leaves supported on firm petioles,</li> <li>➤ Abundance of surface on bark and foliage, through</li> <li>➤ Roughness of bark,</li> <li>➤ Epidermal outgrowth on petioles,</li> <li>➤ Abundance of axillary's hairs,</li> <li>➤ Hairs or scales on laminar surfaces Stomata protected (by was, arches/ rings, hairs, etc.)</li> </ul> <p>All plants selected are locally adapted, and the present site is capable of supporting their growth with suitable horticultural practices. Approx. 10 feet size (height) grown plants will be planted at a density of 2500 per Ha in suitable spacing. Around 9019 plants are proposed to be raised within first 3 years. Under proposed plantation development programme 45.09 Lacs_ budget is proposed. All plants are locally adapted and the present site is capable of supporting their growth with suitable horticultural practices. Sufficient resources and man power for development and maintenance is essential for a good plantation management. A suggested list of plant species suitable for plantation and list of Trees proposed for plantation is given below:</p>



## 10.6 PLANTATION DEVELOPMENT

### Benefits of Planting and Protecting Trees

**Environmental Value:** Trees provide a variety of environmental values, including screening of unpleasant odours, absorption of noise and reduction of pollution and temperatures in the area as described below:

**Air Quality:** Trees are an efficient and cost-effective way for a community to improve its Air quality and reduce pollution. A mature tree absorbs of small particles and gases, like carbon dioxide, which are released into the air by automobiles and industries. In addition, a single tree produces nearly three-quarters of the oxygen required for a person.

**Reduced Noise Pollution:** Noise pollution is an often-overlooked problem. Excessive or unwanted sound has negative physical and psychological effects. Noise can come from many sources, especially roads and highways. Trees can play an important role in deadening unwanted noise. Sound waves are absorbed by a tree's leaves, branches, and twigs.

**Trees (special effects):** Trees in this section should include those sufficiently individualistic, spectacular or strong in character to occupy the isolated positions, either because of these qualities or because they do not mix easily in visual sense with other trees.





PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER- 10

ENVIRONMENTAL MANAGEMENT

PLAN

**10.6.2 Details of proposed year wise Plantation**

S.No.	Scientific Name	Common Name	S. No.in CPCB Manual	HA	HT (m)	E/D	Year wise Plantation programme			No of Trees to be planted	Budget for proposed plantation		
							I Yr.	II Yr.	III Yr.		Plant cost including pitting, watering and fertilizers@ Rs. 300/sapling	Maintenance cost including causality replacement and watering @ Rs 200/ plants	Total
1	<i>Azadirachta indica</i>	Neem	A-44	Tree	20	Evergreen	235	215	212	662	198600	132400	331000
2	<i>Polyalthia longifolia</i>	Ashok	P-9	Tree	15	Evergreen	210	200	212	622	186600	124400	311000
3	<i>Albizia lebbek</i>	Siris	A-29	Tree	20	Deciduous	215	210	212	637	191100	127400	318500
4	<i>Cassia fistula</i>	Amaltash	C-7	Tree	12	Deciduous	215	210	212	637	191100	127400	318500
5	<i>Dalbergia sissoo</i>	Shisham	D-2	Tree	10	Evergreen	225	215	212	652	195600	130400	326000
6	<i>Ficus religiosa</i>	Pipal	F-7	Tree	20	Evergreen	200	215	212	627	188100	125400	313500
7	<i>Ficus bengalensis</i>	Bad	F-3	Tree	12	Evergreen	200	200	212	612	183600	122400	306000
8	<i>Terminalia arjuna</i>	Arjun	T-6	Tree	15	Deciduous	215	210	212	637	191100	127400	318500
9	<i>Syzygium cumini</i>	Jamun	S-20	Tree	20	Evergreen	230	215	212	657	197100	131400	328500
10	<i>Psidium guajava</i>	Guava	P-20	Tree	05	Evergreen	230	215	212	657	197100	131400	328500
11	<i>Bauhinia variegata</i>	Kachnar	B-10	Tree	05	Deciduous	215	215	212	642	192600	128400	321000
12	<i>Aegle marmelos</i>	Beal tree	A-22	Tree	12	Evergreen	225	210	213	648	194400	129600	324000
13	<i>Annona squamosa</i>	Sitaphal	A37	Tree	10	Evergreen	225	225	212	662	198600	132400	331000
14	<i>Mangifera indica</i>	Aam	M-5	Tree	15	Evergreen	230	225	212	667	200100	133400	333500
<b>Total</b>							<b>3070</b>	<b>2980</b>	<b>2969</b>	<b>9019</b>	<b>2705700</b>	<b>1803800</b>	<b>4509500</b>

**Protection, care and monitoring of plantation:**

- In order to protect the plants from sun burn and heat stress during summer, jute bags and agro net will be used.
- After Care: timely and sufficient after care is required such as soil manuring, weeding, proper watering etc.
- Proper monitoring of the plantation will be made.



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

202

287

**10.7 CREP GUIDELINES**

S. No.	CREP Guidelines	Action
1.	Utilization of Steel/ Melting shop (SMS)/ Blast Furnace (BF) Slag as per the following schedule: * By 2004 - 70% * By 2006 - 80% and * By 2007 - 100 %.	There is no generation of slag is from the manufacturing process
2.	Water Conservation/ Water Pollution - To reduce specific water consumption to 5 m3/t for long products and 8 m3/t for flat products by December 2005. To operate the Co-BP effluent treatment plant efficiently to achieve the notified effluent discharge standards. - by June 2003.	<ul style="list-style-type: none"> <li>➤ Total one time Water demand: 750 KLD</li> <li>➤ Proposed-Fresh water Demand-450 KLD (Industry: 382.5, Domestic: 67.5 KLD and)</li> <li>➤ Recycled Water -300 KLD</li> <li>➤ Waste water generated from process will be treated in ETP followed by WRP &amp; RO. The treated water will be reused in COC to colling tower.</li> <li>➤ Domestic waste water 75KLD treated in STP (Capacity-100KLD) and 37.5 KLD of Treated water will be reused in plantation. And 30 KLD will be recycled for flushing purposes.</li> </ul>
3.	Installation of Continuous stack monitoring system & its calibration in major stacks and setting up of the online ambient air quality monitoring stations by June 2005.	The proposed project will perform the stack emission quarterly and will update the pollution control equipment as required and the result will display at plant site.
4.	To operate the existing pollution control equipment efficiently and to keep proper record of run hours, failure time and efficiency with immediate effect. Compliance report in this regard be submitted to CPCB/SPCB every three months.	This is a proposed project.
5.	To implement the recommendations of Life Cycle Assessment (LCA) study sponsored by MoEF by December 2003.	Not Applicable
6.	Processing of the waste containing flux & ferrous wastes through waste recycling plant.	Not Applicable.
7.	To implement rainwater harvesting	Six rain water harvesting structure is proposed at plant site.



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER- 10
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	ENVIRONMENTAL MANAGEMENT
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	PLAN

8.	To set targets for Resource Conservation such as Raw material, energy and water consumption to match International Standards.	<p><b>Water Consumption Details:</b></p> <ul style="list-style-type: none"> <li>➤ Total one time Water demand: 750 KLD</li> <li>➤ Proposed-Fresh water Demand-450 KLD</li> <li>➤ (Industry: 382.5, Domestic: 67.5 KLD and)</li> <li>➤ Recycled Water -300 KLD</li> <li>➤ Waste water generated from process will be treated in ETP followed by WRP &amp; RO. The treated water will be reused in COC to colling tower.</li> <li>➤ Domestic waste water 75KLD treated in STP (Capacity-100KLD) and 37.5 KLD of Treated water will be reused in plantation. And 30 KLD will be recycled for flushing purposes.</li> </ul>
----	---	---

S. No.	Particulars	Fresh (KLD)	Recycled (KLD)	Total Water Demand (KLD)
1.	Industrial	382.5	270	652.5
2.	Domestic	67.5	30	97.5
3.	Plantation and others	---	37.5*(STP treated waste water will be used in plantation)	37.5*(STP treated waste water will be used in plantation)
<b>Total</b>		450	300	<b>750</b>

**Source: - Ground water (\*-Reuse)  
Permission for abstraction of ground water from CGWA will be applied soon.**

8.	Reduction Green House Gases by : * Reduction in power consumption * Use of by -products gases for power generation *Promotion of Energy Optimization technology including energy/ audit	The Greenhouse gases emission will be reduced by <ul style="list-style-type: none"> <li>➤ Proposing CNG Gas for Transportation of vehicles</li> <li>➤ Solar plant of 2000 KW is proposed to be installed.</li> </ul>
9.	Up- gradation in the monitoring and analysis facilities for air and water pollution. Also to impart elaborate training to the manpower so that realistic data is obtained in the environmental monitoring laboratories.	Monitoring for air and water has been done by Third Party.
10.	To Improve overall housekeeping.	Noted and measures will be taken to improve the House Keeping to reduce the fugitive emissions.

\*\*\*\*\*



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER - 11- SUMMARY & CONCLUSIONS

# CHAPTER-11

## SUMMARY & CONCLUSIONS



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

205

280

## CHAPTER-11 INDEX

<b>11.1</b>	<b>LOCATION OF THE PROJECT .....</b>	<b>207</b>
<b>11.2</b>	<b>LOCATION &amp; REGULATORY COMPLIANCE.....</b>	<b>207</b>
<b>11.3</b>	<b>DETAILS OF ESZ &amp; SENSITIVE AREAS.....</b>	<b>207</b>
<b>11.4</b>	<b>BASELINE ENVIRONMENT .....</b>	<b>207</b>
<b>11.5</b>	<b>INTERPRETATION OF BASELINE MONITORING .....</b>	<b>207</b>
<b>11.6</b>	<b>BIOLOGICAL ENVIRONMENT.....</b>	<b>209</b>
<b>11.7</b>	<b>SOCIO-ECONOMIC MANAGEMENT .....</b>	<b>212</b>
<b>11.8</b>	<b>CONCLUSION OF EIA STUDY .....</b>	<b>212</b>

\*\*\*\*\*



## CHAPTER- 11.0

### SUMMARY & CONCLUSIONS

#### 11.1 LOCATION OF THE PROJECT

Jyoti Strips Private Limited is a Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m.

The proposed project is categorized under item **3(a) Metallurgical industries (ferrous & non ferrous) of Schedule, EIA Notification dated Sep 14th, 2006 and its subsequent amendments issued by MOEF&CC.**

#### 11.2 LOCATION & REGULATORY COMPLIANCE

There is no forest land involved, and the location of the plant does not attract any government order, state or central with respect to any on the attributes, and thus does meet criteria as laid out in the siting guidelines.

#### 11.3 DETAILS OF ESZ & SENSITIVE AREAS

- No forest land is involved within the proposed project. Hence, Forest Clearance is not applicable.
- There is No National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas located within 10 km radius of the proposed project.

#### 11.4 BASELINE ENVIRONMENT

The Baseline Environment data such as air quality, water quality, soil quality, land environment, flora and fauna, and socioeconomic environment, are within standards and levels that are significantly below the permissible levels due to the Baseline Environment status's predominantly rural and urban location and lack of significant industrial operations. With regard to each parameter in their respective environmental qualities, there wasn't even a single cause for alarm except for Particulate matter (PM<sub>10</sub> & PM<sub>2.5</sub>).

#### 11.5 INTERPRETATION OF BASELINE MONITORING

##### AIR QUALITY DATA:

The analysis results for the study period are presented in above monitoring tables. Various statistical parameters like 98<sup>th</sup> percentile, average, maximum and minimum values have been computed from the observed raw data for all the AAQ monitoring



stations. These are compared with the standards prescribed by Central Pollution Control Board (CPCB) for rural and residential zone.

The observation based on the perusal of the results is summarized below: -

**PM10:** The maximum value for PM10 observed at Plant Site 84.90  $\mu\text{g}/\text{m}^3$  and minimum value for PM10 observed at **Baghaula** 64.1  $\mu\text{g}/\text{m}^3$ . The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 100  $\mu\text{g}/\text{m}^3$ .

**PM2.5:** The maximum value for PM2.5 observed at **Gadpuri** 67.4  $\mu\text{g}/\text{m}^3$  and minimum value for PM2.5 observed at Village- **Gadpuri** 35.1  $\mu\text{g}/\text{m}^3$ . The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 60  $\mu\text{g}/\text{m}^3$ .

**SO2:** The maximum value for SO2 observed at **Dundsa** 15.4  $\mu\text{g}/\text{m}^3$  and minimum value for SO2 observed at Village- Plant Site 3.13  $\mu\text{g}/\text{m}^3$ . The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80  $\mu\text{g}/\text{m}^3$ .

**NO2:** The maximum value for NO2 observed at **Dundsa** 18.1  $\mu\text{g}/\text{m}^3$  and minimum value for NO2 observed at Village- **Dundsa** 6.88  $\mu\text{g}/\text{m}^3$ . The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80  $\mu\text{g}/\text{m}^3$ .

**CO:** The maximum value for CO observed at **Payala** 0.65  $\mu\text{g}/\text{m}^3$  and minimum value for CO observed at **Plant Site** 0.21  $\mu\text{g}/\text{m}^3$ . The 8 hours applicable limit for Industrial, Residential Rural and other areas is 2000  $\mu\text{g}/\text{m}^3$ .

### Results and Conclusions

The results of the monitored data indicate that the ambient air quality of **PM10, PM2.5, Sox, NOx & CO** are within the permissible limit by CPCB at all the locations.

### Mitigation measures:

The mitigation measures prescribed by Air Commission are being adopted holistic to reduce the air pollution for which the mitigation measure are incorporated in Chapter-4 of EIA/EMP report.

### NOISE QUALITY DATA:

#### a) Day Time Noise Levels (Leqday)

The daytime (Leqday) noise levels are observed in Pirthala to be in the range of 61.1 dB(A) which are within the prescribed limit of 75 dB(A) and in residential areas to be in the range of 45.9 – 61.1 dB(A) which are within the prescribed limit of 55 dB(A).

#### b) Night time Noise Levels (Leqnight)



The nighttime (Leqnight) noise levels are observed in Plant Site to be in the range of 39.1 dB(A) which are within the prescribed limit of 70 dB(A) and in residential areas to be in the range of 39.1 - 48.4 dB(A) which are within the prescribed limit of 45 dB(A).

#### **GROUND WATER**

- The analysis results of eight ground water samples showed the pH in range of 6.92 - 7.60 indicating alkaline nature of ground water.
- Color and turbidity of the samples ranged from <1 Hazens and <1 NTU respectively.
- The total hardness of the samples ranged from 132 mg/l -180 mg/l. The minimum value was observed in (GW6) and whereas the maximum value observed at (GW7).
- Calcium and magnesium concentrations ranged from 23 -38.88 mg/l and 19.93 - 26.06 mg/l respectively.
- The dissolved solids of the samples ranged from 421mg/l -598 mg/l. The maximum value was observed at G-7 and whereas the minimum value observed at G-6.
- Range of chlorides and sulphate concentrations at all the locations 102.25 mg/l - 210mg/l and 15.72 mg/l -22.63 mg/l respectively.
- Fluoride concentration ranged from 0.25mg/l -0.84 mg/l.
- Nitrates are also found ranging in between 3.82mg/l -8.17mg/l.
- Iron concentrations in ground water varied from 0.11-0.16 mg/l.
- Zinc was observed <0.01 mg/l at all the locations.
- Aluminium concentration is observed <0.01 mg/l at all the locations which are within the limits stipulated.
- Mercury concentrations at all the locations observed is <0.001 mg/l

Based on the above results, it is evident that all of the parameters in ground water fairly meet the standard limits of IS: 10500.

#### **SURFACE WATER:**

The surface water collected from Pahladpur Distributary, Agra Canal, Village:-Pirthala Pond. The Results of Surface water are pH-7.16 - 8.05; DO-4.7 to 5.5 mg/l and BOD- 8.2 to 22.71 mg/l & COD 39.28 to 120 mg/l. The results obtained is compared with the standard IS:2296 Limits and found to be Class-C

#### **SOIL ANALYSIS:**

- It is observed that the pH of the soil in the study area ranged from 7.71 to 8.23. The maximum pH value of 8.23 is observed at S-3 and whereas the minimum value of 7.71 was observed at S-4.





- The electrical conductivity was observed to be in the range of 193 $\mu$ S/cm to 289 $\mu$ S/ cm with the maximum observed at S-2 and the minimum observed at S-8.
- The phosphorus values range between 8.7 to 16.2 kg/ha. Indicating that the phosphorus content in the study area falls in medium category.
- The potassium values range between 30.0 to 45.0 mg/100gm.

The result obtained is compared with the standard soil classification given Agriculture Soil Limits. It has been observed that the soils are Sandy loam in texture and slightly alkaline in nature. The nutrient and organic matter contents are medium to average sufficient and the soil is normally fertile.

## 11.6 BIOLOGICAL ENVIRONMENT

### YEAR WISE PROPOSED PLANTATION WITH BUDGETOERY ALLOCATION



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	CHAPTER - 11- SUMMARY & CONCLUSIONS
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

S.No.	Scientific Name	Common Name	S. No.in CPCB Manual	HA	HT (m)	E/D	Year wise Plantation programme			No of Trees to be planted	Budget for proposed plantation		
							I Yr.	II Yr.	III Yr.		Plant cost including transportation, pitting, watering and fertilizers@ Rs. 300/sapling	Maintenance cost including causality replacement and watering @ Rs 200/ plants	Total
1	<i>Azadirachta indica</i>	Neem	A-44	Tree	20	Evergreen	235	215	212	662	198600	132400	331000
2	<i>Polyalthia longifolia</i>	Ashok	P-9	Tree	15	Evergreen	210	200	212	622	186600	124400	311000
3	<i>Albizia lebbek</i>	Siris	A-29	Tree	20	Deciduous	215	210	212	637	191100	127400	318500
4	<i>Cassia fistula</i>	Amaltash	C-7	Tree	12	Deciduous	215	210	212	637	191100	127400	318500
5	<i>Dalbergia sissoo</i>	Shisham	D-2	Tree	10	Evergreen	225	215	212	652	195600	130400	326000
6	<i>Ficus religiosa</i>	Pipal	F-7	Tree	20	Evergreen	200	215	212	627	188100	125400	313500
7	<i>Ficus bengalensis</i>	Bad	F-3	Tree	12	Evergreen	200	200	212	612	183600	122400	306000
8	<i>Terminalia arjuna</i>	Arjun	T-6	Tree	15	Deciduous	215	210	212	637	191100	127400	318500
9	<i>Syzygium cumini</i>	Jamun	S-20	Tree	20	Evergreen	230	215	212	657	197100	131400	328500
10	<i>Psidium guajava</i>	Guava	P-20	Tree	05	Evergreen	230	215	212	657	197100	131400	328500
11	<i>Bauhinia variegata</i>	Kachnar	B-10	Tree	05	Deciduous	215	215	212	642	192600	128400	321000
12	<i>Aegle marmelos</i>	Beal tree	A-22	Tree	12	Evergreen	225	210	213	648	194400	129600	324000
13	<i>Annona squamosa</i>	Sitaphal	A37	Tree	10	Evergreen	225	225	212	662	198600	132400	331000
14	<i>Mangifera indica</i>	Aam	M-5	Tree	15	Evergreen	230	225	212	667	200100	133400	333500
<b>Total</b>							<b>3070</b>	<b>2980</b>	<b>2969</b>	<b>9019</b>	<b>2705700</b>	<b>1803800</b>	<b>4509500</b>

**Protection, care and monitoring of plantation:**

- In order to protect the plants from sun burn and heat stress during summer, jute bags and agro net will be used.
- After Care: timely and sufficient after care is required such as soil manuring, weeding, proper watering etc.
- Proper monitoring of the plantation will be made.



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

200

211

### 11.7 SOCIO-ECONOMIC MANAGEMENT

- The socio-economic expectations of the villagers in the surrounding have minimalistic needs as the sources of employment and earning are available owing to the Study Area. The proposed plant activity will provide employment (round the year) to local people and contribute in the economic status of the area.
- Various questions on the adequacy for safety precautions required by the plant activity operations were enquired. The incumbents replied that they were well aware of the proposed unit operations and that they work in silence & isolation, without disturbing anyone.
- Higher Education facilities for Girls are limited.
- The villagers believe that, for economic growth and sustainable development it is important to protect the environment and harmonize the business activities with it. Habitants view a symbiosis between environment and business development.

#### Expectation

- Employment of Local and only local people in the proposed project.
- The local prioritized civic facilities as follows from a Ranking from 1-5.
  1. Jobs
  2. Higher Education
  3. Sewage disposal / Sanitary pipelining
  4. Security
  5. Water

### 11.8 CONCLUSION OF EIA STUDY

As discussed, it is safe to say that the project is not likely to cause any significant impact on the ecology of the area, as adequate preventive measures will be adopted to contain the various pollutants within permissible limits. Green area development around the area would also be taken up as an effective pollution mitigative technique, as well as to control the pollutants released from the premises of Jyoti Strips Private Limited.

\*\*\*\*\*



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 12 DISCLOSURE OF CONSULTANT ENGAGED
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

# CHAPTER-12

## DISCLOSURE OF CONSULTANT ENGAGED

DRAFT FOR PH



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

213


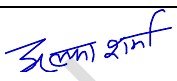
208

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 12 DISCLOSURE OF CONSULTANT ENGAGED
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	


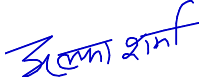
## DISCLOSURE OF CONSULTANTS ENGAGED

### Declaration by Experts contributing to the EIA of Proposed:

Draft EIA Report for proposed project of "Jyoti Strips Private Limited is a Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m. I hereby, certify that I was a part of the EIA team in the following capacity that developed the above EIA.



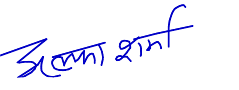
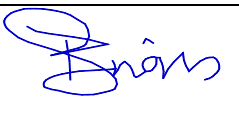
EIA Coordinator		Signature & Date
EIA Coordinator	K. N. Sudershan Rao	
EIA Coordinator	Dr. Alka Sharma	
Period of Involvement	09.09.2022 - till date	
Contact Information	0141- 4920770, 4920771	

### Functional Area Experts: -

S. No.	Functiona l Areas	Name of the Expert/s	Involvement (Period & Task**)	Signature & Date
1	AP	Sunita Mantri Dr. Alka Sharma	<ul style="list-style-type: none"> <li>➤ Selection of AAQ stations in compliance with CPCB/MoEF&amp;CC guidelines</li> <li>➤ Interpretation of baseline data w.r.t CPCB standards</li> <li>➤ Identification of sources of pollution and its inventorization</li> <li>➤ Preparation of Management plan with budgetary provision for all the sources of pollution</li> <li>➤ Suggestion of Operational monitoring program to verify and keep the levels well within the norms from time to time</li> </ul>	 






PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 12 DISCLOSURE OF CONSULTANT ENGAGED
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

2	WP	Sunita Mantri Dr. Alka Sharma	<ul style="list-style-type: none"> <li>➤ Selection of water monitoring locations in line with CPCB norms</li> <li>➤ Interpretation of baseline data w.r.t to CPCB standards</li> <li>➤ Identification of pollution sources with relevant inventorization</li> <li>➤ Preparation of Water Balance</li> <li>➤ Prediction of water pollution and its management plan.</li> </ul>	
3	SHW	Sunita Mantri Dr. Alka Sharma	<ul style="list-style-type: none"> <li>➤ Identification of nature of waste, categorization, and quantity of generated waste.</li> <li>➤ Prediction of waste pollution and preparation of its management.</li> </ul>	 
4	SE	Puran Singh Gujar	<ul style="list-style-type: none"> <li>➤ Collection of Secondary data (Census of India &amp; District Handbook)</li> <li>➤ Collection of primary data of the study area through Questionnaire method</li> <li>➤ Compilation and analysis of primary &amp; secondary data to identify the various activities required on need basis</li> <li>➤ Identification and prediction of Socio-economic impacts</li> <li>➤ Enumerating the benefits of the project in terms of employment, development, etc.</li> <li>➤ Preparation of Environmental Social Responsibility activities based on the need basis with budgetary provisions in compliance with Companies act</li> </ul>	



PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 12 DISCLOSURE OF CONSULTANT ENGAGED
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

			and MoEF&CC guidelines	
5	EB	Dinesh Bohra	<ul style="list-style-type: none"> <li>➤ Identification of samples and its size based on the present land use and land cover pattern.</li> <li>➤ Collection of primary data of flora and fauna for the study area with standard methodology and guidelines</li> <li>➤ Collection of secondary data for cross verification of the primary data</li> <li>➤ Inventorization and compilation of biological aspects of the study area</li> <li>➤ Identification and prediction of various impacts on Ecological and biodiversity</li> <li>➤ Preparation of management plan including greenbelt development plan with budgetary allocation</li> </ul>	
6	HG	Ashish Sudhakar Tadas	<ul style="list-style-type: none"> <li>➤ Collection of secondary data (Ground water Authority)</li> <li>➤ Interpretation of Water resource evaluation of the area.</li> <li>➤ Interpretation of Pre-monsoon &amp; Post-monsoon water levels &amp; quality data.</li> </ul>	
7	GEO	Ashish Sudhakar Tadas	<ul style="list-style-type: none"> <li>➤ Collection of secondary data with respect to regional and local geology from Ground water Department.</li> <li>➤ Interpretation of collected data in the report</li> </ul>	
8	AQ	K. N. Sudershan Rao	<ul style="list-style-type: none"> <li>➤ Collection of primary data</li> <li>➤ Quantification of Air pollution</li> </ul>	



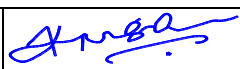
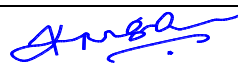

ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

216

295

PROJECT: DRAFT EIA / EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 12 DISCLOSURE OF CONSULTANT ENGAGED
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

			<p>sources (point and line sources)</p> <ul style="list-style-type: none"> <li>➤ Impact prediction using AERMOD View Modelling and its interpretation.</li> <li>➤ Delineating the Incremental load on the existing scenario</li> <li>➤ Suggesting management plan with budgetary provision</li> <li>➤ Suggestion of Operational monitoring program to verify and follow up to keep the levels well within the norms from time to time</li> </ul>	
9	NV	K. N. Sudershan Rao	<ul style="list-style-type: none"> <li>➤ Identification and selection of NAAQ monitoring locations.</li> <li>➤ Collection of primary data (noise quality of the study area)</li> <li>➤ Identification of Noise pollution sources.</li> <li>➤ Impact prediction of noise pollution sources and its interpretation</li> <li>➤ Preparation of management plan with budgetary provision</li> <li>➤ Suggestion of Operational monitoring program to verify and follow up to keep the levels well within the norms from time to time</li> </ul>	
10	LU	Ashish Sudhakar Tadas	<ul style="list-style-type: none"> <li>➤ Collection of Primary and secondary data (Topo sheet, satellite imaginary, coordinates of known vectors, etc.)</li> <li>➤ Geo-referencing the primary data with secondary data using</li> </ul>	



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR



APRIL'2024

217



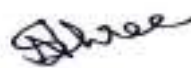
298



PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX	CHAPTER - 12 DISCLOSURE OF CONSULTANT ENGAGED
APPLICANT: JYOTI STRIPS PRIVATE LIMITED	
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119	

			<p>AutoCad, ERDAS, GIS software</p> <ul style="list-style-type: none"> <li>➤ Preparation of Land use and Land cover map</li> <li>➤ Identification and its Impact prediction (if any)</li> </ul>	
11	RH	K. N. Sudershan Rao	<ul style="list-style-type: none"> <li>➤ Identification of risk and hazards</li> <li>➤ QRA study and prediction of risks involved.</li> <li>➤ Management of Hazard controls due to chemical storage</li> <li>➤ Preparation of Disaster Management Plan with Onsite and Offsite Emergency Plan</li> <li>➤ Delineating fire fighting facilities and system</li> <li>➤ Preparation of Occupational Health and Safety Management Plan with budgetary allocations.</li> </ul>	
12	SC	Dinesh Bohra	<ul style="list-style-type: none"> <li>➤ Collection of primary data</li> <li>➤ Interpretation of existing quality of soil.</li> <li>➤ Prediction of Impact and its management (if any).</li> </ul>	

**Team member/FAA \***

S. No.	Name of Team Members	Functional Areas	Signature
1.	Yamini Singh Rathore (FAA)	EB, AP	
2.	Himanshi Shukla(FAA)	SC, AP	
3.	Neha Shree(TM)	HG, Geo	



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

218

293

PROJECT: DRAFT EIA /EMP REPORT OF PROPOSED COLD ROLLING MILL COMPLEX

APPLICANT: JYOTI STRIPS PRIVATE LIMITED

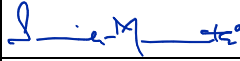
DOCUMENT NO.: EESPL/JSPL/IND/EC/2022-23/119

CHAPTER - 12

DISCLOSURE OF CONSULTANT ENGAGED

**Declaration by the Head of the Accredited Consultant Organization**

I, Sunita Mantri, hereby, confirm that the above mentioned experts prepared the EIA of Draft EIA Report For proposed project of "Jyoti Strips Private Limited is a Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m. I also confirm that I shall be fully accountable for any misleading information mentioned in this statement.

Signature	
Name	Sunita Mantri
Designation	CMD
Name of the EIA Consultant Organization	Enkay Enviro Services Pvt. Ltd., Jaipur
NABET Certificate No. & Issue Date	At S.No. 60 (as on April 2024) as per List of Accredited EIA Consultant Organizations.

\*\*\*\*\*



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

APRIL'2024

219

298

**File No.SEIAA/HR/2023/426**

Government of India

State Level Environment Impact Assessment Authority

Haryana

\*\*\*

To,

M/s JYOTI STRIPS PRIVATE LIMITED

Kila No. 4 to 24, Prithla - Tatarpur Road, Village - Tatarpur, Palwal, Haryana.,

Palwal-121102

Haryana

**Tel.No.-; Email:sanjaybatra@jyotistrips.com**

**Sub. Terms of Reference to the Jyoti Strips Private Limited "Proposed Cold Rolling Mill Complex with Galvanizing and color coating line having total Capacity of Various products 7, 80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m. (12.729 ha). , Kila No. 4 to 24, Prithla - Tatarpur Road, Village - Tatarpur, Palwal, Haryana.**

Dear Sir/Madam,

This has reference to the proposal submitted in the Ministry of Environment, Forest and Climate Change to prescribe the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the proponent had submitted online information in the prescribed format (Form-1 ) along with a Pre-feasibility Report. The details of the proposal are given below:

- 1. Proposal No.:** SIA/HR/IND1/438851/2023
- 2. Name of the Proposal:** Jyoti Strips Private Limited "Proposed Cold Rolling Mill Complex with Galvanizing and color coating line having total Capacity of Various products 7, 80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana over an area of 127294.69 sq.m. (12.729 ha).
- 3. Category of the Proposal:** Industrial Projects - 1
- 4. Project/Activity applied for:** 3(a) Metallurgical industries (ferrous & non ferrous)
- 5. Date of submission for TOR:** 11 Oct 2023

Date : 27-10-2023

Sh. Pardeep Kumar, IAS  
( Member Secretary )

Office : **Bays No. 55-58, 1st Floor, Prayatan Bhawan, Sector-2, Panchkula, Haryana**

Phone No : Mobile : **9811840212**

Email id : [seiaa-21.env@hry.gov.in](mailto:seiaa-21.env@hry.gov.in)

**Note :** This is auto tor granted letter.

In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation as follows:

### **ACTIVITY 3 (a)- METALLURGICAL INDUSTRY (Ferrous and Non-ferrous)**

#### **STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR METALLURGICAL INDUSTRY (Ferrous and Non-ferrous) AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT**

#### **GENERAL CONDITIONS-**

##### **1. Introduction**

- i. Background about the project
- ii. Need of the project
- iii. Purpose of the EIA study
- iv. Scope of the EIA study

##### **2. Project description**

###### **A. Site Details**

- i. Location of the project site covering village, Taluka/Tehsil, District and State.
- ii. Site accessibility
- iii. Adigital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).
- iv. Latest High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100m all around the project location.
- v. Environment settings of the site and its surrounding along with map.
- vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
- vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.
- viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.
- ix. Type of land, land use of the project site.
- x. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.
- xi. Engineering layout of the area with dimensions depicting existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

###### **B. Forest and wildlife related issues (if applicable):**

- i. Status of Forest Clearance for the use of forest land shall be submitted.
- ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
- iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
- iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna, if any exists in the study area.

**C. Salient features of the project**

- i. Products with capacities in **Tons per Annum** for the proposed project.
- ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
- iii. Site preparatory activities.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
- vi. Manufacturing process details along with process flow diagram of proposed units.
- vii. Consolidated materials and energy balance for the project.
- viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
- ix. Water balance diagram
- x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
- xi. Man-power requirement.
- xii. Cost of project and scheduled time of completion.
- xiii. Brief on present status of compliance (Expansion/modernization proposals)
  - a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
  - b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next three years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
  - c. Copy of all the Environment Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided.
  - d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the Regional Office of the SPCB shall be submitted.

**3. Description of the Environment**

- i. Study period
- ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
<b>A. Air Environment</b>			
<b>Micro-Meteorological</b> <ul style="list-style-type: none"> <li>• Wind speed (Hourly)</li> <li>• Wind direction</li> <li>• Dry bulb temperature</li> <li>• Wet bulb temperature</li> <li>• Relative humidity</li> <li>• Rainfall</li> <li>• Solar radiation</li> <li>• Cloud cover</li> <li>• Environmental Lapse Rate</li> </ul>	Minimum 1 site in the project impact area	1 hourly continuous	<ul style="list-style-type: none"> <li>• IS 5182 Part 1-20</li> <li>• Site specific primary data is essential</li> <li>• Secondary data from IMD, New Delhi</li> <li>• CPCB guidelines to be considered.</li> </ul>
<b>Pollutants</b> <ul style="list-style-type: none"> <li>• PM<sub>2.5</sub></li> <li>• PM<sub>10</sub></li> <li>• SO<sub>2</sub></li> <li>• NO<sub>x</sub></li> <li>• CO</li> <li>• HC</li> <li>• Other parameters relevant to the project and topography of the area</li> </ul>	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	<ul style="list-style-type: none"> <li>• Sampling as per CPCB guidelines</li> <li>• Collection of AAQ data (except in monsoon season)</li> <li>• Locations of various stations for different parameters should be related to the characteristic properties of the parameters.</li> <li>• The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests,</li> <li>• Raw data of all AAQ measurement for 12 weeks of all stations as</li> </ul>

Attributes	Sampling		Remarks
	Network	Frequency	
			per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
<b>B. Noise</b>			
• Hourly equivalent noise levels	At least 8-12 locations	As per CPCB norms	
<b>C. Water</b>			
<b>Parameters for water quality</b>	Samples for water quality should be collected and analyzed as per:		
• pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity	• IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents		
• Total nitrogen, total phosphorus, DO, BOD, COD, Phenol	• Standard methods for examination of water and wastewater analysis published by American Public Health Association.		
• Heavy metals			
• Total coliforms, faecal coliforms			
• Phyto plankton			
• Zoo plankton			
<b>For River Bodies</b>	• Surface water quality of the nearest River (60m upstream and downstream ) and other surface water	• Yield of water sources to be measured during critical season	• Standard methodology for collection of surface water (BIS standards)
• Total Carbon			
• pH			
• Dissolved Oxygen			
• Biological Oxygen Demand			
• Free NH4			
• Boron			
• Sodium Absorption Ratio			
• Electrical			



Attributes	Sampling		Remarks
	Network	Frequency	
Conductivity	bodies		
<b>For Ground Water</b>	<ul style="list-style-type: none"> <li>Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included.</li> </ul>		
<b>D. Traffic Study</b>			
<ul style="list-style-type: none"> <li>Type of vehicles</li> <li>Frequency of vehicles for transportation of materials</li> <li>Additional traffic due to proposed project</li> <li>Parking arrangement</li> </ul>			
<b>E. Land Environment</b>			
<b>Soil</b>	Soil samples be collected as per BIS specifications		
<ul style="list-style-type: none"> <li>Particle size distribution</li> <li>Texture</li> <li>pH</li> <li>Electrical conductivity</li> <li>Cation exchange capacity</li> <li>Alkali metals</li> <li>Sodium Absorption Ratio (SAR)</li> <li>Permeability</li> <li>Water holding capacity</li> <li>Porosity</li> </ul>			
<b>Land use/Landscape</b>			
<ul style="list-style-type: none"> <li>Location code</li> <li>Total project area</li> <li>Topography</li> <li>Drainage (natural)</li> <li>Cultivated, forest, plantations, water bodies, roads and settlements</li> </ul>			
<b>E. Biological Environment</b>			

Attributes	Sampling		Remarks
	Network	Frequency	
<b>Aquatic</b> <ul style="list-style-type: none"> <li>• Primary productivity</li> <li>• Aquatic weeds</li> <li>• Enumeration of phyto plankton, zoo plankton and benthos</li> <li>• Fisheries</li> <li>• Diversity indices</li> <li>• Trophic levels</li> <li>• Rare and endangered species</li> <li>• Marine Parks/ Sanctuaries/ closed areas /coastal regulation zone (CRZ)</li> </ul>			<ul style="list-style-type: none"> <li>• Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species.</li> <li>• Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site.</li> <li>• For forest studies, direction of wind should be considered while selecting forests.</li> <li>• Secondary data to collect from Government offices, NGOs, published literature.</li> </ul>
<b>Terrestrial</b> <ul style="list-style-type: none"> <li>• Vegetation-species list, economic importance, forest produce, medicinal value</li> <li>• Importance value index (IVI) of trees</li> <li>• Fauna</li> <li>• Avi fauna</li> <li>• Rare and endangered species</li> <li>• Sanctuaries / National park / Biosphere reserve</li> <li>• Migratory routes</li> </ul>			
<b>F. socio-economic</b>			
<ul style="list-style-type: none"> <li>• Demographic structure</li> <li>• Infrastructure resource base</li> <li>• Economic resource base</li> <li>• Health status: Morbidity pattern</li> <li>• Cultural and aesthetic attributes</li> </ul>			<ul style="list-style-type: none"> <li>• Socio-economic survey is based on proportionate, stratified and random sampling method.</li> <li>• Primary data collection through questionnaire</li> <li>• Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. Agencies</li> </ul>

Attributes	Sampling		Remarks
	Network	Frequency	
Education			

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:

- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment

**4. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)**

i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase
- b. Operation phase
  - Details of stack emissions from the existing as well as proposed activity.
  - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
  - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.

iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase
- b. Operation phase

iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase
- b. Operation phase

v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase
- b. Operation phase
- vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase
- vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase
- viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase
- ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase
- x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase
- xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase

## **5. Analysis of Alternatives (Technology & Site)**

- i. No project scenario
- ii. Site alternative
- iii. Technical and social concerns
- iv. Conclusion

## **6. Environmental Monitoring Program**

- i. Details of the Environment Management Cell
- ii. Performance monitoring schedule for all pollution control devices shall be furnished.
- iii. Corporate Environment Policy
  - a. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.
  - c. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.

- d. Does the company have system of reporting of non compliances / violations of environment norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

iv. Action plan for **post-project environment monitoring matrix:**

Activity	Aspect	Monitoring Parameter	Location	Frequency	Responsibility
Construction phase					
Operation phase					

**7. Additional Studies**

- i. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).
- ii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Crores)
	Name of the Activity	Physical Targets	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	

iii. Risk assessment

- Methodology
- Hazard identification
- Frequency analysis
- Consequence analysis
- Risk assessment outcome

iv. Emergency response and preparedness plan

**8. Project Benefits**

- i. Environment benefits
- ii. Social infrastructure
- iii. Employment and business opportunity
- iv. Other tangible benefits

**9. Environment Cost Benefit Analysis**

- i. Net present value
- ii. Internal rate of return
- iii. Benefit cost ratio
- iv. Cost effectiveness analysis

**10. Environment Management Plan (Construction and Operation phase)**

- i. Air quality management plan
- ii. Noise quality management plan

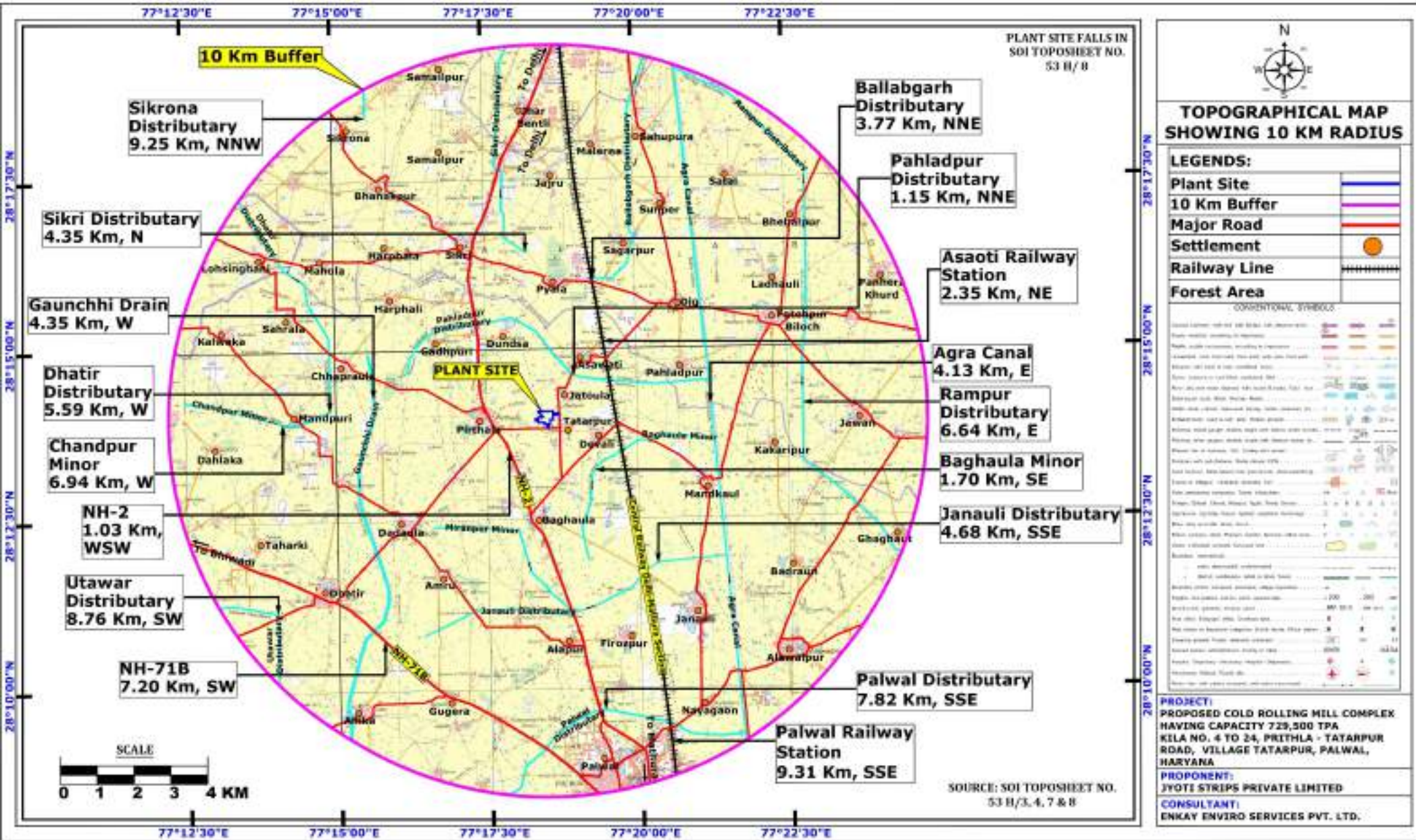
- iii. Solid and hazardous waste management plan
- iv. Effluent management plan
- v. Storm water management plan
- vi. Rain water harvesting plan
- vii. Occupational health and safety management plan
- viii. Green belt development plan
- ix. Socio-economic management plan
- x. Wildlife conservation plan (In case of presence of schedule I species)
- xi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

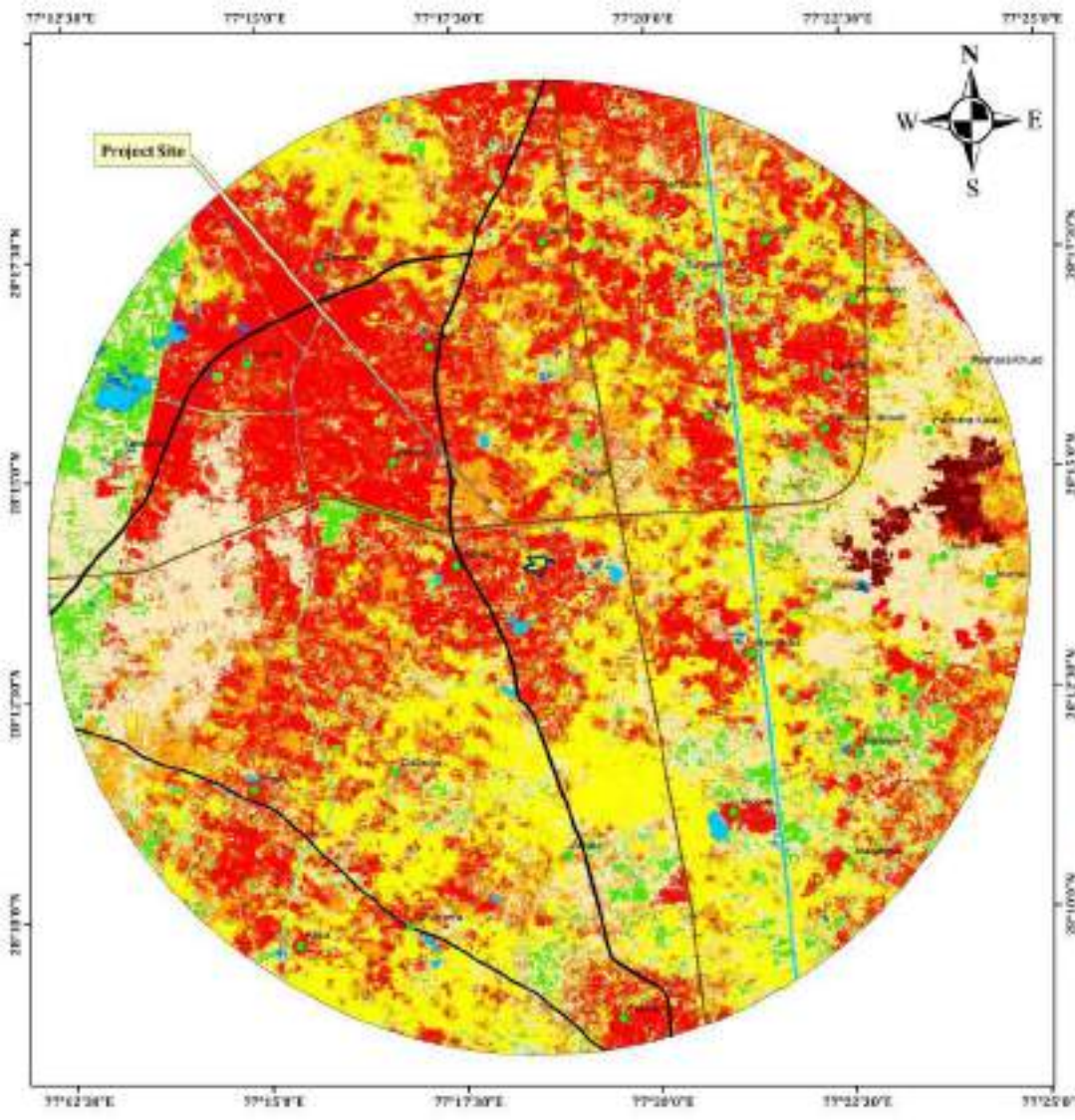
#### **11. Conclusion of the EIA study**

12. In addition to the above, any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

#### **SPECIAL CONDITIONS-**

1. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
2. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
3. Plan for solid wastes utilization
4. Plan for utilization of energy in off gases (coke oven, blast furnace)
5. System of coke quenching adopted with justification.
6. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content (TCLP), composition and end use of slag.
9. 100 % dolo char generated in the plant shall be used to generate power.
10. Fourth Hole fume extraction system shall be provided for SAF. WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
11. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
12. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019.





### LAND USE & LAND COVER CLASSIFICATION MAP

**SOURCE: INDIAN REMOTE SENSING SATELLITE, LISS-IV, RESOLUTION-5.8m, D.O.P. 9.12.2023**

**Legend**

- Habitation
- WB
- Road
- Buffer 10 KM
- Railroad
- Plant Site

LAND USE & LAND COVER CLASSIFICATION TABLE				
Category	Sub-Category	Class No.	Area	Area in %
Builtup	Brick Kiln	24639	0.74	
	Builtup	1098197	35.11	
Agricultural land	Industrial Area	243330	7.27	
	Crop Land	587680	25.78	
	Fallowland	705341	23.08	
Plantation	Plantation	170231	5.13	
Waterbods	WB	29972	0.90	
Grand Total			3346734	100

**Address:**  
Kila No.-4 to 24 Prithla Tatarpur Road,  
Village-Tatarpur, Palwal Haryana

**Proponent:**  
Proposed Coled Rolling Mill Complex

**Project:**  
Jyoti Strips Private Limited

**Consultant:**  
Enkay Enviro Services Pvt. Ltd.

**Scale:**  
0 1.25 2.5 5 7.5 10 KM





Directorate of Town & Country Planning, Haryana  
Plot No. 3, Sec-16A, Madhya Marg, Chandigarh 160018, web site:  
[www.tcpharyana.gov.in](http://www.tcpharyana.gov.in),  
Phone: 0172-2549349, e-mail: [tcpharyana7@gmail.com](mailto:tcpharyana7@gmail.com)



To

Jyoti Strips Pvt. Ltd.,  
Through its Director Sh. Naresh Kumar,  
Corp. Off. Plot no. 100 to 106, HUDA,  
Sector-59, Phase-II, Tehsil Ballabgarh  
& District Faridabad-121004

Memo No. CLU/PL-1681A/CTP/6757/2022 Dated: 11/03/2022

**Subject: Letter of Intent for grant of additional change of land use permission for setting up of Industrial Unit in the revenue estate of Village Maindapur/Jatola, Tehsil & District Palwal— Jyoti Strips Pvt. Ltd**

Reference: Your application dated 06.08.2021 on the above cited subject

Your request for grant of additional change of land use permission for setting up of Industrial Unit over an area measuring 35406.827 Sqm comprising Khasra no. 38//16/2 min, 17 min, 18/1 min, 18/2 min, 19 min, 20 min, 23/2, 24/1, 25/1, 25/2/2, 40//3/2, 4/1, 4/2/1, 4/2/2, 5/1, 5/2, 6, 8/1, 15/1 of Village Maindapur/Jatola Tehsil Hodal District Palwal has been considered and it has been decided in principle to grant permission for change of land use on the land shown on the enclosed site plan. Therefore, as per requirement of the provisions of Rule 26-C of Rules, 1965 i/we are hereby required to fulfill the following terms and conditions in accordance with Rule 26-D of Rules, 1965 and submit the following documents as prerequisite: -

1. An agreement deed on prescribed CLU-II Performa (<https://tcpharyana.gov.in/Forms/CLU-Forms/Form%20CLU-II.pdf>) on the Non-judicial Stamp Paper as required under the provisions of the Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1963 and Rules, 1965 framed there under.
2. A Sum of Rs.1770341.00 on account of Conversion Charges (refer Fees and charges at <https://tcpharyana.gov.in/>) be deposited online at [www.tcpharyana.gov.in](http://www.tcpharyana.gov.in).
3. An undertaking on Non-Judicial Stamp Paper that (I/we \_\_\_\_\_) hear by undertake and undertaking that:
  - I. I/we shall pay the additional amount of Conversion charges for any variation in area at site in lump sum within a period of 30 days as and when detected and demanded by the Director, Town & Country Planning, Haryana, Chandigarh.
  - II. I/we shall complete the demarcation at site within 7 days and will submit the Demarcation Plan in the office of concerned District Town Planner.
  - III. I/we shall pay the total external development charges as demanded by the department in case the subject land comes under organizable limit due to its extension in future.
  - IV. I/we shall give at least 75% employment to the domiciles of Haryana where the posts are not technical in nature and a quarterly statement indicating the category wise total employment to those who belong to Haryana shall be furnished to the G.M.D.I.C.
  - V. I/we shall deposit labor cess at the time of approval of building plan.
  - VI. I/we shall have no objection to land acquisition for laying/augmentation of services at any point of time in future as required by Govt./HSVP.

VII. That no other application for grant of license/CLU permission for the Khasra nos. covered under the present CLU application stand submitted by i/we which is pending for consideration/orders

VIII. I/we shall obtain occupation certificate from the department after completing the building within two years of issuance of this permission.

IX. I/we shall get the building plans for the site approved from the department before commencing the construction at site and will start the construction within six months from the date of issuance of final permission.

4. To deposit an amount of Rs. 91,25,841/- against 10% of the total EDC @ Rs. 104.305 lacs per gross acre to be deposited online at [www.topharyana.gov.in](http://www.topharyana.gov.in)

5. Submit an undertaking that I/we shall maintain the ROW of 440 KV HT line passing through the applied site

6. Submit an undertaking that I/we shall pay the 40% of the total External Development Charges at the time of acquisition of land of this sector and balance 50% in four annual installments with 15% interest of the updated rates of EDC as existing on the date of announcement of award.

7. Submit an undertaking that the EDC have been charged on the basis of EDC Indexation Mechanism Policy dated 11.02.2016, which stands approved by cabinet. If there will be any change and delay in the amendment in the Act/Rules w.r.t. the said rates, then differential amount from the original calculation will required to be deposited as and when demanded by the Department

8. Submit an undertaking that i/we are fully aware that the development/construction cost of 24/18/15 m wide road/major internal road is not included in the EDC rates and i/we shall pay the proportionate cost for acquisition of land, if any along with the construction cost of 24/18 m wide road/major internal road as and when finalized and demanded by the Director, Town & Country Planning, Haryana

9. Submit an undertaking that I/we shall obtain NOC/Clearance as per provisions of notification dated 14.09.2006 issued by Ministry of Environment & Forest, Govt. of India, if applicable before execution of development works at site.

10. I/we shall not submit any other application for CLU/License for this land and the land is free from litigation/court case/acquisition etc.

11. I/we shall not object the acquisition of land falling under road widening in future, if any.

As laid down under Rule 26-C , I/we are hereby called upon to fulfill the above said terms and conditions and submit the requisite documents within a period of 30 days from the date of issue of this letter (L.O.I). On your failure, this letter shall stand withdrawn and permission shall be refused as per the provisions of Rule 26-C(2) of Rules, 1965.

Surena  
District Town Planner  
Directorate of Town &  
Country Planning,  
Haryana

Endst No. CTP/6758-6759/2022  
1.Senior Town Planner, Faridabad.

Dated. 11/03/2022

2. District Town Planner, Palwal

*Jasraj*  
District Town Planner  
Directorate of Town &  
Country Planning,  
Haryana



Sub: - Request of grant of additional Change of Land Use permission for setting up an Industrial unit bearing kh. no. 3B//16/2 min, 17 min, 18/1 min, 18/2 min, 19 min, 20 min, 23/2, 24/1, 25/1, 25/2/2, 40//3/2, 4/1, 4/2/1, 4/2/2, 5/1, 5/2, 6, 8/1, 15/1, in the revenue estate of village Maindapur/Jatola, Tehsil & Distt. Palwal - M/s Jyoti Strips Private Ltd. (PL-1681A).

Ref: Applicant's application received through e-office bearing diary no. TCP-OFA/14041/2021 dated 30.07.2021 & Application No. CLU/PL-1681A dated 06.08.2021.

With reference to subject cited above, it is intimated that the applicant company i.e. Jyoti Strips Pvt. Ltd. has already been granted CLU permission to the subjected unit vide Directorate office memo no. PL-1443-JE(S)-2017/3660 dated 27.02.2017, bearing kh. no. 76//B, 9, 10/2, 11/1, 11/2, 11/3, 12/2, 12/1, 13, 18, 19/1, 19/2, 20, 23/2, 24, 77//15/1 min, 15/2 min, 98//4, 7 min, 8/1 min, CLU granted area 53674.79 sqm. of village Prithla, & additional CLU permission has already been granted vide Directorate office memo no. PL-1443-B-PA (SS)-2018/5405 dated 09.02.2018 bearing kh. no. 38//21, 22, 23/1, 40//2, 3/1, 8/2, 9, of village Maindapur & 40//7, CLU granted area 18714.60 sqm of village Jatola, Tehsil & Distt. Palwal. As per record of this office, building plan of the same has been approved vide Directorate office memo no. PL-1443-B/AD (RA)/2018/30979 dated 02.11.2018 (53674.79 + 18714.60 = 72389.39 sqm.) & Occupation Certificate has already been granted vide Directorate office memo no. PL-1443-B/AD (NIC)/2021/14036 dated 16.06.2021, total covered area on ground floor 10546.40 sqm. Now, the applicant has applied on the adjacent land of said CLU granted land bearing kh. no. 3B//16/2 min, 17 min, 18/1 min, 18/2 min, 19 min, 20 min, 23/2, 24/1, 25/1, 25/2/2, 40//3/2, 4/1, 4/2/1, 4/2/2, 5/1, 5/2, 6, 8/1, 15/1, in the revenue estate of village Maindapur/Jatola, Tehsil & Distt. Palwal total land bearing 69K-19M-BS or 35406.827 sqm., or 8.749 acres for industrial unit in the revenue estate of village Maindapur/Jatola Tehsil & Distt. Palwal. The applicant uploaded the requisite documents on the web portal. The CLU application alongwith uploaded documents have been examined and also the applied site has been visited/inspected. The detailed report is as under:-

1. As per the copy of revenue documents, total applicant land 81K-18M, but applied land 69K-19M-BS or 35406.827 sqm., or 8.749 acres, bearing kh. No. 38//16/2 min, 17 min, 18/1 min, 18/2 min, 19 min, 20 min, 23/2, 24/1, 25/1, 25/2/2, 40//3/2, 4/1, 4/2/1, 4/2/2, 5/1, 5/2, 6, 8/1, 15/1, in the revenue estate of village Maindapur/Jatola, Tehsil & Distt. Palwal is under the ownership of M/s Jyoti Strips Private Ltd. vide mutation no. 963, 1166, 1175, 961, 937, 935, 1039 & 1077.
2. Applied site falls in controlled area around primary school at village Jatola notified no. CGP(NCR)/EW/(KMP)/FBD/18/CAB/2008/1264 dated 31.05.2006.
3. As per published Final Development Plan Prithla 2031AD, the applied land falls in Industrial zone, sector-11.
4. As per aks sajra plan applied land is approachable through already CLU granted site.
5. The applied site falls in the urban area Prithla. Therefore no violation under section 7(i) of the Haryana Development Regulations of Urban Area Act 1975.
6. Site visited on 09.08.2021 and found vacant.
7. No Gas pipe line passes through the applied site.

8. There is a 440 KV HT Line passes through right of way the applied land as shown on the site plan.
9. The site plan has been prepared on the basis of Aka-Sajra/Site Cum Survey Plan uploaded by the applicant.
10. Applied site does not come under Notification dated 07.05.1992 of Ministry of Environment & Forest, Govt. of India and Punjab Land Preservation Act, 1900.
11. The applied site does not fall in 1 KM restricted belt of K.M.P. Expressway.
12. As per the revenue documents uploaded by the applicant company and as well as this office record, there is no acquisition proceeding on the applied land.
13. As per Revised Regional Plan NCR 2021AD, Sub Regional Plan of Haryana and ground truthing report submitted by District Level Sub Committee, on 24.06.2019 the applied site falls outside the Natural Conservation Zone.

The above report of above referred application alongwith Site Sketch Plan, Urban Area Plan Prithla, Part Copy of FDP Prithla 2031AD & Part Copy of Approved Circulation Plan are submitted for consideration and further forwarding to STP office, Faridabad, please.

Directorate of Town & Country Planning, Haryana

SCO-71-75, 2<sup>nd</sup> Floor, Sector-17-C, Chandigarh, Phone: 0172-2549349  
Web site: [tpharyana.gov.in](http://tpharyana.gov.in) - e-mail: [tpharyana3@gmail.com](mailto:tpharyana3@gmail.com)

Regd.

Form C.U.-III (See Rule 25-F)

To

Jyoti Strips Pvt. Ltd  
C/o 103-B, Singh Farm Road, Mithabpur Extension,  
Badarpur Road, New Delhi - 110044  
Email id - [md@jyotistrips.com](mailto:md@jyotistrips.com)

Memo. No. PL-1443-JE(S)-2017/ 3660 Dated: 27-02-2017

Subject: - Grant of change of land use permission for setting up of Industrial Unit in the revenue estate of village Prithla and Jatola, Sector-11, Prithla, Distt. Palwal - Jyoti Strips Pvt. Ltd.

Reference: - Your application dated 02.12.2016 on the above cited subject.

Permission of change of land use for setting up of an Industrial Unit over an area measuring 53574.79 Sqm falling in Khasra no. 40/13, 14, 17/1, 18, 17/2, 23, 24 and 42/4 of village Jatola. 76/8, 9, 10/2, 11/1, 11/2, 11/3, 12/2, 12/1, 13, 18, 19/1, 19/2, 20, 23/2, 24, 77/15/1 min, 15/2 min, 98/4, 7 min and 8/1 min of village Prithla, Sector-11, Prithla, District Palwal is hereby granted after receipt an amount of Rs. 26,83,740/- on account of conversion charges and Rs. 1,38,33,307/- on account of external development charges.

This permission is further subject to the following terms and conditions:-

1. That the conditions of agreement executed by you with the Director General, Town & Country Planning, Haryana, Chandigarh and the provisions of the Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1953 and Rules framed there under shall be complied with by you.
2. That you shall pay the 40% of the total external development charges at the time of acquisition of land of this sector and balance 50% in four annual installments with 15% interest of the updated rates of EDC as existing on the date of announcement of award.
3. The EDC have been charged on the basis of EDC Indexation Mechanism Policy dated 11.02.2016, which stands approved by cabinet. If there will be any change and delay in the amendment in the Act/Rules w.r.t. the said rates, then differential amount from the original calculation will required to be deposited as and when demanded by the Department.
4. That you are fully aware that the development/construction cost of 24/18/15 m wide road/major internal road is not included in the EDC rates and you shall pay the proportionate cost for acquisition of land, if any alongwith the construction cost of 24/18 m wide road/major internal road as and when finalized and demanded by the Director General, Town & Country Planning, Haryana.
5. That you shall pay the additional amount of conversion charges for any variation in area at site in lump sum within 30 days as and when detected and demanded by the Director General, Town & Country Planning, Haryana, Chandigarh.
6. That you shall give at least 75% employment to the domiciles of Haryana where the posts are not of technical nature and a quarterly statement indicating the category wise total employment and of those who belongs to Haryana shall be furnished to the G.M.D.I.C, Palwal.
7. That you shall get the building plans for the site approved from the Department before commencing the construction at site and will start construction within six months from issuance of change of land use permission.

8. That you shall obtain occupation certificate from the Department after completing the building within two years of issuance of this permission.
9. That you shall deposit labour cess before approval of building plans.
10. That you shall maintained the right of way along HT Line and take appropriate measures of safety as per guideline issued by the Electricity Department.
11. That you shall construct the part of 24 m wide sector road, 12 m wide service road at your own cost in concurrence with the concerned authority and handover the same to Government Authority as and when directed by this Department.
12. That this permission shall be valid for two years from the date of issue of this letter subject to fulfilment of the terms and conditions of the permission granted and agreement executed.
13. That this permission will not provide any immunity from any other Act/Rules/Regulations applicable to the land in question.

*T.L. Satyaprakash*  
23/2/24  
(T.L. Satyaprakash, IAS)  
Director, Town & Country Planning  
Haryana, Chandigarh

Encl. No. PL-1443-JE(S)-2017/

Dated:-

A copy is forwarded to the following for information and necessary action:-

1. Senior Town Planner, Faridabad.
2. District Town Planner, Palwal.
3. GM, DIC, Palwal.
4. Nodal office (website) to host the permission on website.

(Vijender Singh)  
District Town Planner (HQ)  
For-Director, Town & Country Planning  
Haryana, Chandigarh



Directorate of Town & Country Planning, Haryana

5CD-71-75, 2<sup>nd</sup> Floor, Sector-17-C, Chandigarh, Phone: 0172-2549349  
Web site tcpharyana.gov.in - e-mail: tcpharyana@gmail.com

Regd.

Form CLU-III (See Rule-26-E)

To

Jyoti Strips Pvt. Ltd  
Regd. Off: 103-B, Sindhu Farm Road, Mithabpur Extension,  
Badarpur Road, New Delhi - 110044  
Email id - md@jyotistrrips.com

Memo. No. PL-1443-B-PA (SS)-2018/ 5405 Dated: 09-02-2018

Subject: - Grant for change of land use permission for setting up of Industrial Unit (Steel strips) over an additional area in the revenue estate of village Maidapur and Jatola, Sector- 11, Palwal - Jyoti Strips Pvt. Ltd.

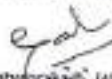
Please refer to your application dated 01.01.2018 and 06.02.2018 on the above cited subject.

Permission for change of land use for setting up of an Industrial Unit (Steel strips) over an additional area measuring 18714.60 Sqm falling in Khosra no. 38//21, 23//1, 22, 40//2, 3//1, 8//2, 9 of village Maidapur and 40//7 of village Jatola, Sector- 11, Palwal is hereby granted after receipt an amount of Rs. 9,35,730/- against conversion charges and Rs. 48,23,570/- against 10% of total external development charges.

This permission is further subject to the following terms and conditions:-

1. That the conditions of agreement executed by you with the Director General, Town & Country Planning, Haryana, Chandigarh and the provisions of the Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1963 and Rules framed there under shall be complied with by you.
2. That you shall pay the 40% of the total external development charges at the time of acquisition of land of this sector and balance 50% in four annual installments with 15% interest of the updated rates of EDC as existing on the date of announcement of award.
3. The EDC have been charged on the basis of EDC Indexation Mechanism Policy dated 11.02.2016, which stands approved by cabinet. If there will be any change and delay in the amendment in the Act/Rules w.r.t. the said rates, then differential amount from the original calculation will required to be deposited as and when demanded by the Department.
4. That you are fully aware that the development/construction cost of 24/18/15 m wide road/major internal road is not included in the EDC rates and you shall pay the proportionate cost for acquisition of land, if any alongwith the construction cost of 24/18 m wide road/major internal road as and when finalized and demanded by the Director General, Town & Country Planning, Haryana.
5. That you shall pay the additional amount of conversion charges for any variation in area at site in lump sum within 30 days as and when detected and demanded by the Director General, Town & Country Planning, Haryana, Chandigarh.
6. That you shall give at least 75% employment to the domiciles of Haryana where the posts are not of technical nature and a quarterly statement indicating the category wise total employment and of those who belongs to Haryana shall be furnished to the G.M.D.I.C, Palwal.
7. That you shall get the building plans for the site approved from the Department before commencing the construction at site and will start construction within six months from issuance of change of land use permission.
8. That you shall obtain occupation certificate from the Department after completing the building within two years of issuance of this permission.

9. That you shall deposit labour cess before approval of building plans.
10. That this permission shall be valid for two years from the date of issue of this letter subject to fulfillment of the terms and conditions of the permission granted and agreement executed.
11. That this permission will not provide any immunity from any other Act/Rules /Regulations applicable to the land in question.


  
(T.L. Satyaprakash), IAS  
Director General, Town & Country Planning  
Haryana, Chandigarh

Encl. No. PL-1443-B-PA (SS) 2024/

Dated:-

A copy is forwarded to the following for information and necessary action:-

1. Senior Town Planner, Faridkot.
2. District Town Planner, Palwal.
3. Project Manager (IT) with a request to link the permission on website.

  
District Town Planner (HQ)  
For-Director General, Town & Country Planning  
Haryana, Chandigarh

Directorate of Town & Country Planning, Haryana

SCO-71-75, 2<sup>nd</sup> Floor, Sector-17-C, Chandigarh, Phone: 0172-2549349  
Web site [tcp.haryana.gov.in](http://tcp.haryana.gov.in) - e-mail: [tcp.haryana@gmail.com](mailto:tcp.haryana@gmail.com)

Regd.

To

Jyoti Strips Pvt. Ltd  
Regd. Off: 103-B, Sindhu Farm Road, Mithebpur Extension,  
Baderpur Road, New Delhi - 110044  
Email id - [md@jyotistrips.com](mailto:md@jyotistrips.com)

Memo. No. PL-1443-B-PA(55)-2018/ 4414 Dated: 02-02-2018

Subject: - Letter of Intent for change of land use permission for setting up of Industrial Unit (Steel strips) over an additional area in the revenue estate of village Prithia and Jatola, Sector- 11, Palwal - Jyoti Strips Pvt. Ltd.

Please refer to your application dated 01.01.2018 on the above cited subject.


Your request for grant of change of land use for setting up of an Industrial Unit (Steel strips) over an additional area measuring 18714.650 Sqm falling in Khasra no. 38//21, 23//1, 22, 40//2, 3//1, 8//2, 9 of village Maldapur and 40//77 of village Jatola, Sector- 11, Palwal has been considered and it has been decided in principle to grant permission for change of land use on the land shown on the enclosed site plan. Therefore, as per requirement of the provisions of Rule 26-C of Rule, 1965 you are hereby required to fulfill the following terms and conditions in accordance with Rule 26-D of Rules 1965 and submit the following documents as prerequisite:-

1. An agreement deed on prescribed CLU-II Performa (Specimen Enclosed) on the Non-Judicial Stamp Paper as required under the provisions of the Punjab-Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1963 and Rules, 1965 framed there under.
2. An amount of Rs. 9,35,730/- against conversion charges @ Rs. 50/- per Sqm and Rs. 48,23,570/- against 10% of total EDC @ Rs. 104,305/- lacs per gross acre (125% FAR) to be deposited online at [www.tcp.haryana.gov.in](http://www.tcp.haryana.gov.in)
3. An undertaking on Non-Judicial Stamp Paper stating that:-
  - a) You shall pay the additional amount of Conversion Charges for any variation in area at site in lump sum within 30 days as and when detected and demanded by the Director, Town & Country Planning, Haryana, Chandigarh.
  - b) You shall pay the 40% of the total External Development Charges at the time of acquisition of land of this sector and balance 50% in four annual installments with 15% interest of the updated rates of EDC as existing on the date of announcement of award.
  - c) The EDC have been charged on the basis of EDC Indexation Mechanism Policy dated 11.02.2016, which stands approved by cabinet. If there will be any change and delay in the amendment in the Act/Rules w.r.t. the said rates, then differential amount from the original calculation will required to be deposited as and when demanded by the Department.
  - d) You are fully aware that the development/construction cost of 24/18/15 m wide road/major internal road is not included in the EDC rates and you shall pay the proportionate cost for acquisition of land, if any alongwith the construction cost of 24/18 m wide road/major internal road as and when finalized and demanded by the Director, Town & Country Planning, Haryana.

- e) You shall give at least 75% employment to the domiciles of Haryana where the posts are not of technical nature and a quarterly statement indicating the category wise total employment and of those who belongs to Haryana shall be furnished to the G.M.D.I.C., Palwal.
- f) You shall get the Building plans for the site approved from the Department before commencing the construction at site and will start the construction within Six months from the date of issuance of final permission.
- g) You shall obtain Occupation Certificate from the Department after completing the building within two years of issuance of this permission.
- h) You shall deposit the labour cess before approval of building plans.
- i) You shall have no objection to acquire the land, if required for road widening.
- j) You have not submitted any other application for CLU/Licence for this land and the land is free from litigation/court case/acquisition etc.

As laid down under rule 26-C, you are hereby called upon to fulfill the above said terms and conditions and submit the requisite documents within a period of 30 days from the date of issue of this letter (L.O.I.) On your failure, this letter shall stand withdrawn and permission shall be refused as per the provisions of rule 26-C (2) of Rules, 1965.

DA/ CLU-Agreement


  
(Vijender Singh)  
District Town Planner (HQ)  
For-Director, Town & Country Planning  
Haryana, Chandigarh

Dated:

Enst No. PL-1443-B-PA (SS) 2018/

A copy is forwarded to the following for information and necessary action:-

1. Senior Town Planner, Faridabad.
2. District Town Planner, Palwal.

  
(Vijender Singh)  
District Town Planner (HQ)  
For-Director, Town & Country Planning  
Haryana, Chandigarh

FORM BR-III  
(See Code 4.2 (4))  
Form of Sanction

From

Chief Town Planner, Haryana-cum- Chairman,  
Building Plan Approval Committee,  
O/o Director, Town & Country Planning Department,  
Haryana, SCO-71-75, Sector-17-C, Chandigarh.  
Tele-Fax: 0172-2548475; Tel.: 0172-2548851,  
E-mail: tcpharyana7@gmail.com  
Website [www.tcpharyana.gov.in](http://www.tcpharyana.gov.in)

To

Jyoti Strips Pvt. Ltd.  
✓ 103-B, Singh Farm Road, Mithabpur Extension,  
Badarpur Road, New Delhi-110044.

Memo No. PL-1443-B/AD (RA)/2018/ 30979 Dated:- 02-11-2018

Subject: -

Approval of Building Plans of Industrial Building over an area measuring 72389.39 Sqm. in the Revenue Estate of Village Prithla and Jatola, Sector-11, Prithla District Palwal for which CLU permission has been granted to Jyoti Strips Pvt. Ltd.

Reference your application dated 31.08.2018 for permission to erect the Industrial Building on the area measuring 72389.39 Sqm. in the Revenue Estate of Village Prithla and Jatola, Sector-11, Prithla District Palwal in accordance with the plans submitted with it.

Permission is hereby granted for the aforesaid construction subject to the provisions of the Punjab Scheduled Roads & Controlled Areas Restriction of Unregulated Development Act, 1963 and Haryana Building Code-2017 subject to the following amendments, terms and conditions: -

1. The plans are valid for a period of 2 years of the buildings less than 15.00 meters in height and 5 years for the multistoried buildings from the date of issuance of sanction, subject to validity of CLU permission.
2. The structural responsibility of the construction shall be entirely of the Owner/ supervising Architect/ Engineer of the scheme.

Further that: -

- a) The building shall be constructed in accordance to the Structure Design submitted by you and as prepared by Structure Engineer and certified by Proof Consultant on prescribed FORM BR-V (AZ), as per the provisions of NBC and relevant IS Code for all seismic load, all dead and live loads wind pressure and structural safety from earthquake of the intensity expected under Zone-IV.
  - b) All material to be used for erection of building shall conform to I.S.I. and N.B.C. standards.
  - c) No walls/ceiling shall be constructed of easily inflammable material and staircases shall be built of the fire resisting material as per standard specification.
  - d) The roof slab of the basement external to the buildings if any shall be designed/ constructed to take the load of fire tender up to 45 tones.
3. FIRE SAFETY:
- (i) The owner and the Supervising Architect of the project shall be entirely responsible for making provisions of fire safety and fire-fighting measures and shall abide by all fire safety bye laws.
  - (ii) That you shall get approved the fire-fighting scheme in accordance with the section 15 of The Haryana Fire Safety Act, 2009 and directions issued by the Director, Haryana Fire Services, before starting the construction work at site.

4. No addition and alteration in the building plans/ layout plan shall be made without the prior approval of DTCP. Further only figured dimensions shall be followed and in case of any variation in the plans, prior approval of DTCP shall be pre-requisite.
5. The revenue Rasta if any passing through the site shall be kept unobstructed.
6. If any infringement of byelaws remains unnoticed, the Department reserves the right to amend the plan as and when any such infringement comes to its notice after giving an opportunity of being heard and the Department shall stand indemnified against any claim on this account.
7. The layout showing the electric installation shall have to be got approved from the Chief Electrical Inspector before execution of work at site.
8. No person shall occupy or allow any other person to occupy any new building or part thereof for any purpose whatsoever until such building or part thereof has been certified by the Director or any person authorized by him in this behalf as having been completed in accordance with the permission granted and an occupation certificate in prescribed form has been duly issued in your favour.
9. You shall apply for occupation certificate as per the provisions of Code 4.10 of the Haryana Building Code-2017 which shall be accompanied by certificates regarding completion of works described in the plans and it shall be accompanied by:
  - (i) Structural stability certificate duly signed by the recognized Architect & Structural Engineer.
  - (ii) A clearance from Fire Safety point of view from the competent authority.
10. You shall comply with the conditions laid down in the Memo No. 188506 dated 18.09.2018 of Superintending Engineer (HQ), HSVP, Panchkula and Fire Officer Memo no. 102919 dated 17.10.2018 (copies enclosed).
11. GENERAL: -
  - (i) That the owner shall obtain the clearance/NOC as per the provisions of the Notification No. S.O. 1533 (E) dated 14.9.2006 issued by Ministry of Environment and Forests, Government of India before starting the construction/execution of development works at site, if applicable.
  - (ii) That the rain water harvesting system shall be provided as per Central Ground Water Authority norms/Haryana Govt. notification as applicable.
  - (iii) That the owner shall use only Light-Emitting Diode lamps (LED) fitting for internal lighting as well as Campus lighting.
  - (iv) That the owner shall strictly comply with the directions issued vide Notification No. 19/6/2016-5P dated 31.03.2016 issued by Haryana Government Renewable Energy Department.
  - (v) That the owner shall ensure the installation of Solar Photovoltaic Power Plant as per the provisions of order No. 22/52/2005-5Power dated 21.03.2016 issued by Haryana Government Renewable Energy Department.
  - (vi) That you shall deposit the labour cess in future, time to time as per construction of work done at site.
  - (vii) That if any, site for Electric Sub Station is required, same will be provided by you in the site.
  - (viii) That provision of parking shall be made within the area earmarked /designated for parking in the site and no vehicle shall be allowed to park outside the premises.
  - (ix) The responsibility of laying and maintaining (including quality and design etc.) of internal public health services shall be entirely of the owner/supervising architect/engineer of the scheme.


- (x) That you shall follow provisions of section 46 of 'The Persons with Disabilities (Equal Opportunities, protection of Rights and full Participation) Act, 1995' which includes construction of Ramps in public buildings, adaption of toilets for wheel chair users, Braille symbols and auditory signals in elevators or lifts and other relevant measures for Hospitals, Primary Health Centre and other medical care and rehabilitation units.
12. Environment: That you shall strictly comply with the directions of MOEF Guidelines, 2010 while raising construction. In addition, you shall comply with the instructions of Director, Town & Country Planning, Haryana, Chandigarh issued vide order dated 14.05.2015, available on the Departmental Website [www.tcpharyana.gov.in](http://www.tcpharyana.gov.in) at URL :<https://tcpharyana.gov.in/Policy/Misc392%20OA%20No.%2021%20of%202014%20Yardhaman%20Kaushik%20Vs.%20UOI.ors.pdf> in compliance of the orders dated 10.04.2015 passed by Hon'ble National Green Tribunal in OA No. 21 of 2014, which are as under:
- (i) You shall put tarpaulin on scaffolding around the area of construction and the building. You are also directed that you shall not store any construction material particularly sand on any part of the street/roads.
  - (ii) The construction material of any kind that is stored in the site will be fully covered in all respects so that it does not disperse in the Air in any form.
  - (iii) All the construction material and debris shall be carried in the trucks or other vehicles which are fully covered and protected so as to ensure that the construction debris or the construction material does not get dispersed into the air or atmosphere, in any form whatsoever.
  - (iv) The dust emissions from the construction site should be completely controlled and all precautions taken in that behalf.
  - (v) The vehicles carrying construction material and construction debris of any kind should be cleaned before it is permitted to ply on the road after unloading of such material.
  - (vi) Every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris shall be provided with mask to prevent inhalation of dust particles.
  - (vii) Every owner and or builder shall be under obligation to provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relating to dust emission.
  - (viii) It shall be the responsibility of every owner/builder to transport construction material and debris waste to construction site, dumping site or any other place in accordance with rules and in terms of Hon'ble NGT order dated 10.04.2015 referred above.
  - (ix) All to take appropriate measures and to ensure that the terms and conditions of the Hon'ble NGT order dated 10.04.2015 referred above in OA No. 21 of 2014 and the earlier orders passed in said case should strictly comply with by fixing sprinklers, creations of green air barriers.
  - (x) Compulsory use of wet jet in grinding and stone cutting.
  - (xi) Wind breaking walls around construction site.

15 of the WST Act on the principle of Polluter Pay. Such action would be in addition not in derogation to the other action that the Authority made take against such builder, owner, person and transporter under the laws in force.

- (xii) All the owners/builders shall ensure that C & D waste is transported in terms of this order to the site in question only and due record in that behalf shall be maintained by the builders, transporters and MCR of Delhi.
- (xiii) It is made clear that even if constructions have been started after seeking Environmental Clearance under the EA notification 2006 and after taking other travel but is being carried out without taking the preventive and protective environmental steps as stated in above said order dated 10.04.2015 passed by NGT and NOEF guidelines, 2010, the State Government, SPCB and any officer of any Department as afore-stated shall be entitled to direct stoppage of work.
- (xiv) The temple building within the subject cited site shall be used for in house activity by the management & staff of this Industrial Unit only, and not for general public at large and also you shall submit an undertaking in this regard within one week from the issuance of this letter.

This sanction will be void ab initio, if any of the conditions mentioned above are not complied with.

BA/As above

  
(Dilwinder Singh)  
Architect (HQ),  
Building Plan Approval Committee.

Memo No. PL-1443-G/AD (BA)/2018/\_\_\_\_\_

Dated: \_\_\_\_\_

A copy is forwarded to the following for information:-

- 1- Haryana State Pollution Control Board, Panchkula with the request that the compliance of the instructions issued by NGT shall be monitored and strict compliance to be ensured.
- 2- Senior Town Planner, Faridabad.
- 3- Superintending Engineer (HQ) HSP, Panchkula.
- 4- District Town Planner, Palwal along with one set of building plans.
- 5- Nodal Officer, Website Updation.
- 6- Fire Officer/ Civil Director, Urban Local Bodies, Haryana, Panchkula.

Encl. as above

  
(Dilwinder Singh)  
Architect (HQ),  
For: Chief Town Planner, Haryana-cum-Chairman,  
Building Plan Approval Committee.



**Directorate of Town and Country Planning, Haryana**

SCO No. 71-75, 2<sup>nd</sup> Floor, Sector-17 C, Chandigarh, web site: tcpharyana.gov.in  
Phone: 0172-2549349; e-mail: tcpharyana7@gmail.com

Regd.

To


Jyoti Strips Pvt. Ltd  
C/o 103-B, Singh Farm Road, Mithabpur Extension,  
Badarpur Road, New Delhi - 110044  
Email id - [md@jyotistrips.com](mailto:md@jyotistrips.com)

Memo. No. PL-1443-JE(SK)-2019/ 6273 Dated: 06-03-19

**Subject: -** Grant of one year extension for change of land use permission for setting up of Industrial Unit in the revenue estate of village Prithla and Jatola, Sector-11, Prithla, Distt. Palwal - Jyoti Strips Pvt. Ltd.

Please refer to your application dated 13.02.2019 on the above cited subject.

Your request for grant of one year extension of CLU permission issued vide this office memo no 3660 dated 27.02.2017 has been considered by the Director, Town and Country Planning, Haryana and I have been directed to inform you that one year extension upto 26.02.2020 is hereby granted after receipt an amount of Rs. 2,70,000/- subject to the condition that you shall apply for Occupation Certificate within extended period of CLU permission.


  
(Vijender Singh)  
District Town Planner (HQ)  
For: Director, Town & Country Planning  
Haryana, Chandigarh

Endst. No. PL-1443-JE(SK)-2019/

Dated:

A copy is forwarded to the following for information:-

1. Senior Town Planner, Faridabad.
2. District Town Planner, Palwal.

  
(Vijender Singh)  
District Town Planner (HQ)  
For: Director, Town & Country Planning  
Haryana, Chandigarh

**Directorate of Town & Country Planning, Haryana**

Nagar Yojana Bhawan, Plot No.3, Sector-18-A, Madhya Marg, Chandigarh, Phone: 0172-2549349  
Web site [tcpharyana.gov.in](http://tcpharyana.gov.in) - e-mail: [tcpharyana7@gmail.com](mailto:tcpharyana7@gmail.com)

Regd.

To


Jyoti Strips Pvt. Ltd  
C/o 103-B, Singh Farm Road, Mithabpur Extension,  
Badarpur Road, New Delhi - 110044  
Email id - [md@jyotistrips.com](mailto:md@jyotistrips.com)

Memo. No. PL-1443/JE(SK)-2020/ 3896 Dated: 10-02-2020

**Subject: -** Grant of further one year extension for change of land use permission for setting up of Industrial Unit in the revenue estate of village Prithla and Jatola, Sector-11, Prithla, Distt. Palwal - Jyoti Strips Pvt. Ltd.

Please refer to your application dated 23.01.2020 on the above cited subject.

Your request for further one year extension in change of land use permission issued for construction of proposed Industrial unit in the revenue estate of village Prithla and Jatola, Sector-11, District-Palwal issued vide memo no. 3660 dated 27.02.2017, is hereby extended up to 26.02.2021 subject to condition that you shall complete the building as per the approved plans and apply for Occupation Certificate after completing the building within the extended period of CLU permission.

  
(Vijender Singh)  
District Town Planner (HQ)  
For: Director General, Town & Country Planning  
Haryana, Chandigarh

Endst. No. PL-1443/JE(SK)-2020/

Dated:

A copy is forwarded to the following for information:-

1. Senior Town Planner, Faridabad.
2. District Town Planner, Palwal.

(Vijender Singh)  
District Town Planner (HQ)  
For: Director General, Town & Country Planning  
Haryana, Chandigarh

**Directorate of Town & Country Planning, Haryana**

Nagar Yojana Bhawan, Plot No.3, Sector-18-A, Madhya Marg, Chandigarh, Phone: 0172-2549349  
Web site tcpharyana.gov.in - e-mail: tcpharyana7@gmail.com

Regd.

To


Jyoti Strips Pvt. Ltd  
C/o 103-B, Singh Farm Road, Mithabpur Extension,  
Badarpur Road, New Delhi - 110044  
Email id - [md@jyotistrips.com](mailto:md@jyotistrips.com)

Memo. No. PL-1443-B/JE(SK)-2020/3893 Dated: 10-02-2020

**Subject: -** Grant of two year extension for change of land use permission for setting up of Industrial Unit for an additional area in the revenue estate of village Prithla and Jatola, Sector-11, Prithla, Distt. Palwal - Jyoti Strips Pvt. Ltd.

Please refer to your application dated 23.01.2020 on the above cited subject.

Your request for grant of two year extension of CLU permission issued vide this office memo no 5405 dated 09.02.2018 has been considered by the Director General, Town and Country Planning, Haryana and I have been directed to inform you that two year extension upto 09.02.2022 is hereby granted after receipt an amount of Rs. 93,730/- subject to the condition that you shall apply for Occupation Certificate within extended period of CLU permission.

  
(Vijender Singh)  
District Town Planner (HQ)  
For: Director General, Town & Country Planning  
Haryana, Chandigarh

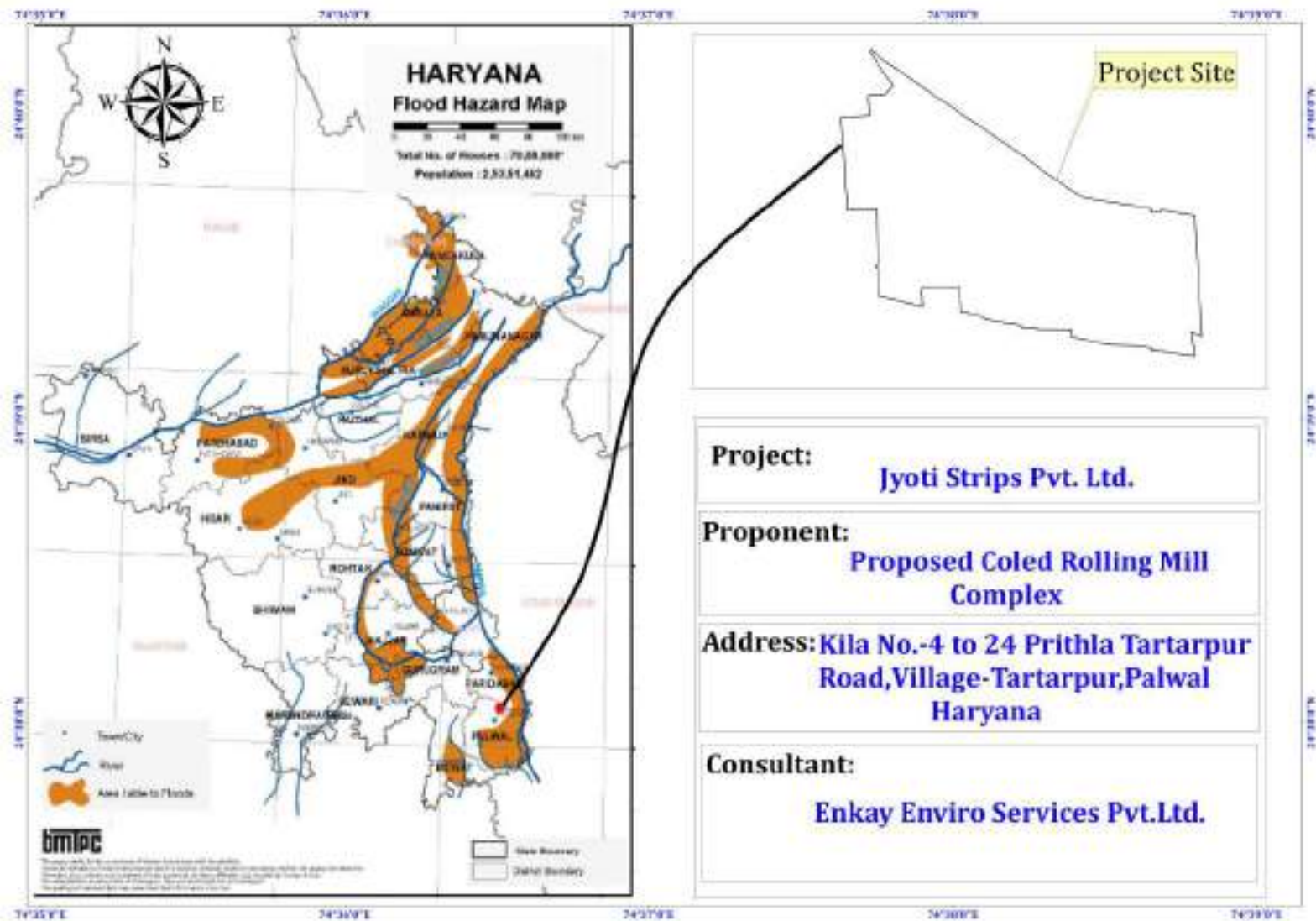
Endst. No. PL-1443-B/JE(SK)-2020/

Dated:

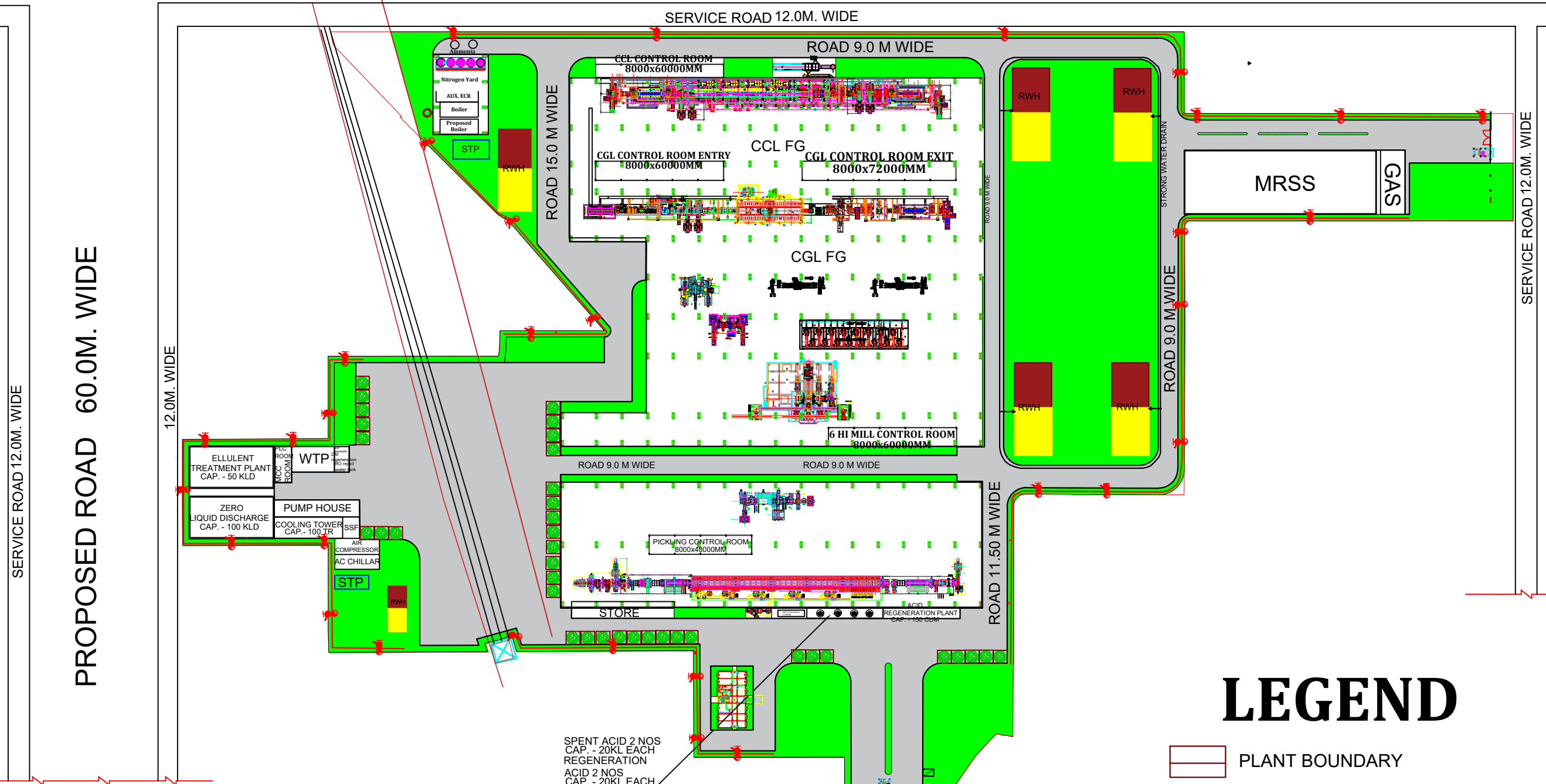
A copy is forwarded to the following for information:-

1. Senior Town Planner, Faridabad.
2. District Town Planner, Palwal.

(Vijender Singh)  
District Town Planner (HQ)  
For: Director General, Town & Country Planning  
Haryana, Chandigarh



PROPOSED ROAD 60.0M. WIDE

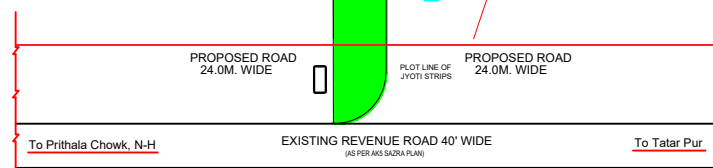


# LEGEND

- PLANT BOUNDARY
- GREEN AREA
- ROAD /PAVED AREA
- RWH
- PROPOSED PLANTATION IN CONTAINER
- FIRE HYDRANT
- FIRE HYDRANT LINE

S.NO	PARTICULAR	AREA IN(SQ.M)	AREA IN(%)
1	ROAD/PAVED AREA	35997.62	28.27
2	GREEN AREA	36077.10	28.35
3	OPEN AREA	0.0	0.0
4	PLANT/ROOFTOP	55219.97	43.38
5	TOTAL AREA	127294.69	100

SPENT ACID 2 NOS  
CAP. - 20KL EACH  
REGENERATION  
ACID 2 NOS  
CAP. - 20KL EACH



### 1.0 SCOPE OF WORK

M/s. ENKAY ENVIRO SERVICES PVT LTD entrusted the job of environmental monitoring, sampling analysis and data generation to M/s ALKOM SYNERGY PVT.LTD., or three-month March to May 2023.

Monitoring of Ambient Air Quality, Water quality, Soil Quality and Ambient Noise Quality measurement are part of the scope of work given to M/s ALKOM SYNERGY PVT.LTD. The environmental monitoring has been carried out at the following locations:

#### A) Ambient Air Quality Locations:

Location Code	Sample Collection Details	Location Name	Co-ordinates
AAQ-1	Ambient Air Quality	Plant Site	28°13'57" N 77°18'28" E
AAQ-2	Ambient Air Quality	Village:-Devali	28°13'49" N 77°19'15" E
AAQ-3	Ambient Air Quality	Village:-Asawati	28°14'55" N 77°19'11" E
AAQ-4	Ambient Air Quality	Village:-Pyala	28°16'02" N 77°18'51" E
AAQ-5	Ambient Air Quality	Village:-Dundsa	28°15'23" N 77°17'44" E
AAQ-6	Ambient Air Quality	Village:-Gadpuri	28°15'08" N 77°16'40" E
AAQ-7	Ambient Air Quality	Village:-Pirthala	28°14'06" N 77°17'19" E
AAQ-8	Ambient Air Quality	Village:-Baghaura	28°12'22" N 77°18'17" E



**B] Ambient Noise Quality Locations :**

Location Code	Sample Collection Details	Location Name	Co-ordinates
N-1	Ambient Noise	Plant Site	28°13'57" N 77°18'28" E
N-2	Ambient Noise	Village:-Devali	28°13'49" N 77°19'15" E
N-3	Ambient Noise	Village:-Asawati	28°14'55" N 77°19'11" E
N-4	Ambient Noise	Village:-Pyala	28°16'02" N 77°18'51" E
N-5	Ambient Noise	Village:-Dundsa	28°15'23" N 77°17'44" E
N-6	Ambient Noise	Village:-Gadpuri	28°15'08" N 77°16'40" E
N-7	Ambient Noise	Village:-Pirthala	28°14'06" N 77°17'19" E
N-8	Ambient Noise	Village:-Baghaula	28°12'22" N 77°18'17" E

**C] Water Quality Locations:**

Location Code	Sample Collection Details	Location Name	Co-ordinates
GW-1	Ground Water	Plant Site	28°13'57" N 77°18'28" E
GW-2	Ground Water	Village:-Devali	28°13'49" N 77°19'15" E
GW-3	Ground Water	Village:-Asawati	28°14'55" N 77°19'11" E
GW-4	Ground Water	Village:-Pyala	28°16'02" N 77°18'51" E
GW-5	Ground Water	Village:-Dundsa	28°15'23" N 77°17'44" E
GW-6	Ground Water	Village:-Gadpuri	28°15'08" N 77°16'40" E
GW-7	Ground Water	Village:-Pirthala	28°14'06" N 77°17'19" E
GW-8	Ground Water	Village:-Baghaula	28°12'22" N 77°18'17" E
SW-1	Surface Water	Pahladpur Distributary	28°14'28" N 77°20'39" E
SW-2	Surface Water	Agra Canal	28°15'03" N 77°21'08" E
SW-3	Surface Water	Village:-Pirthala Pond	28°13'50" N 77°17'14" E



D] Soil Quality Locations:

Location Code	Sample Collection Details	Location Name	Co-ordinates
S-1	Soil Sample	Plant Site	28°13'57" N 77°18'28" E
S-2	Soil Sample	Village:-Devali	28°13'49" N 77°19'15" E
S-3	Soil Sample	Village:-Asawati	28°14'55" N 77°19'11" E
S-4	Soil Sample	Village:-Pyala	28°16'02" N 77°18'51" E
S-5	Soil Sample	Village:-Dundsa	28°15'23" N 77°17'44" E
S-6	Soil Sample	Village:-Gadpuri	28°15'08" N 77°16'40" E
S-7	Soil Sample	Village:-Pirthala	28°14'06" N 77°17'19" E
S-8	Soil Sample	Village:-Baghaura	28°12'22" N 77°18'17" E





### MONITORING AND ANALYSIS METHODOLOGY

The consultant (EESPL) had Pre-identified the monitoring stations for Air, Water, Soil and Noise. Time bound program for carrying out fieldwork was prepared and was followed as far as possible. The APHA / IS methods are followed to decide the monitoring stations, analysis of sample.

#### Ambient Air Quality Monitoring:

Fine Particulate Samplers (FPS) has been used for PM<sub>2.5</sub> Sampling. Respirable Dust Samplers (RDS) with gaseous attachment have been used for PM<sub>10</sub> Sampling. RDS with Gaseous attachment assembly is used for the collection of gaseous pollutants such as SO<sub>2</sub> & NO<sub>x</sub>. The details of the instrument used for sampling and testing methods are given below: -

#### Ambient Air Monitoring Instruments

Instrument	Make	Model No.
Reparable Dust Sampler (RDS)	M/s. Lata Instruments Pvt. Ltd., Ghaziabad	APM-460
		APM 451
Fine Particulate Sampler (FPS)	M/s. Envirotech Instruments Pvt. Ltd., Noida	APM 550
Combo for PM 10 & PM 2.5	M/s. Envirotech Instruments Pvt. Ltd., Noida	AAS 271

#### Testing Method to be followed for Ambient Air Quality

Particular	Testing Method to be Followed
Ambient Air Monitoring Characteristics	
A PM <sub>10</sub>	IS 5182 (Part 23)
B PM <sub>2.5</sub>	IS 5182 (Part 24)
C SO <sub>2</sub> (Sulfur Dioxide)	IS 5182 (Part 2)
D NO <sub>2</sub> (Nitrogen Dioxide)	IS 5182 (Part 6)
E CO (Carbon Monoxide)	SCS/SOP/AAQ/13

#### Noise Level Measurement

Sound level meter is used for the collection of data related to noise at an interval of one hour per reading. Noise level for 24 hours was conducted at mentioned date's pre-decided location. The details of the instrument used for the sampling is mentioned in the separate annexure under the heading of Details of instruments & Apparatus.

#### Noise (Sound) Measuring Instrument

Instrument	Make	Model No.	Detection Limit
Sound Level Measurement	HTC (Data	SL-4033SD	Low: 30-80dB
Instrument Standard Accessories	Logger)		High: 80-130dB



**Water and Soil Quality Survey**

Water samples were collected in pre-sterilized sampling container. Chemical and Metals analysis was carried out as per standard Methods for ground water and surface water Analysis, Published by APHA, etc.

**Quality Assurance**

Alkom Synergy Pvt. Ltd is MOEF & NABL accredited laboratory and follows quality systems as per ISO 9001:2015. The QA/QC procedures are laid prior to sample collection and laboratory analysis. It includes the standard procedures of sample collection, preservation, transportation and laboratory analysis with all documented procedures and continuous monitoring of Quality Control Division.

**Results of Survey Data**

The Survey results of Meteorological Data, Ambient Air Quality, Ambient Noise Monitoring, Soil and Water Sampling analysis are presented below.

**Meteorological Data**

Percentage frequencies of wind in 16 directions have been computed from the recorded data during the study period [1<sup>st</sup> March 2022 to 31<sup>st</sup> may 2022] for hourly intervals to plot wind rose. The figure represents the summary of the wind pattern for the study period.

The hourly meteorological data recorded is given in table below:

**THE SUMMARY OF THE WIND PATTERN**

S. No.	Wind Direction	0.5-2.1 Speed m/s	>= 2.1 Speed m/s	Total
1.	N	6	0	6
2.	NNE	14	0	14
3.	NE	64	0	64
4.	ENE	70	4	74
5.	E	98	1	99
6.	ESE	115	0	115
7.	SE	103	1	104
8.	SSE	64	2	66
9.	S	106	2	108
10.	SSW	182	3	185
11.	SW	237	4	241
12.	WSW	266	4	270
13.	W	110	0	110
14.	WNW	67	0	67
15.	NW	53	0	53
16.	NNW	32	1	33
Sub-Total				1610
Calms				621
Missing/Incomplete				1
Total				2232

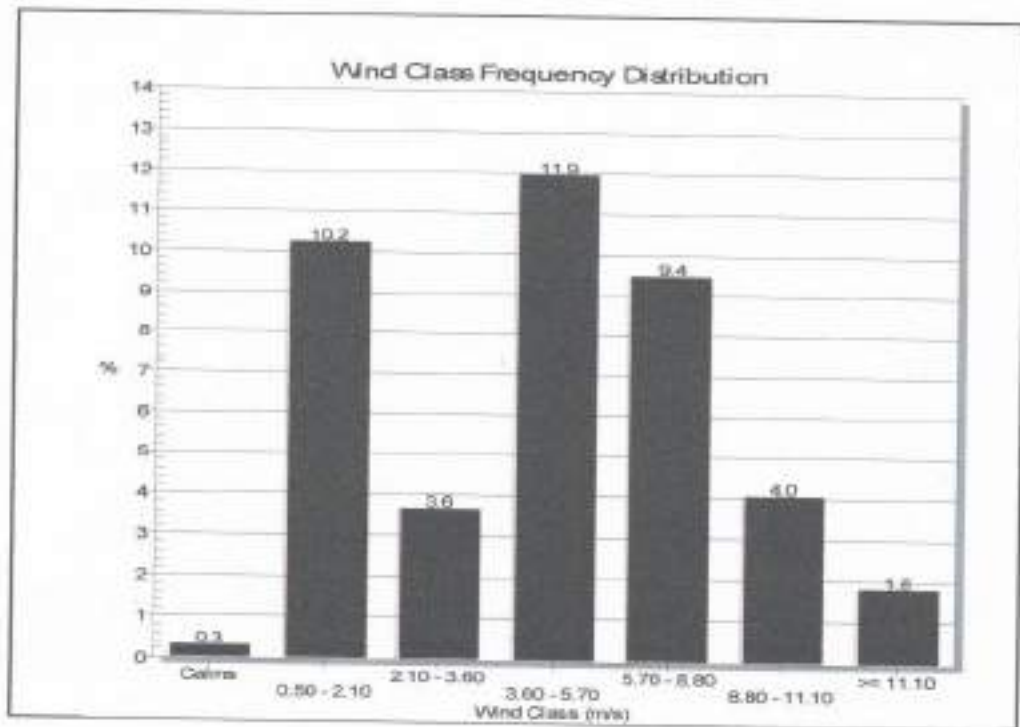


**SITE SPECIFIC WIND ROSE**

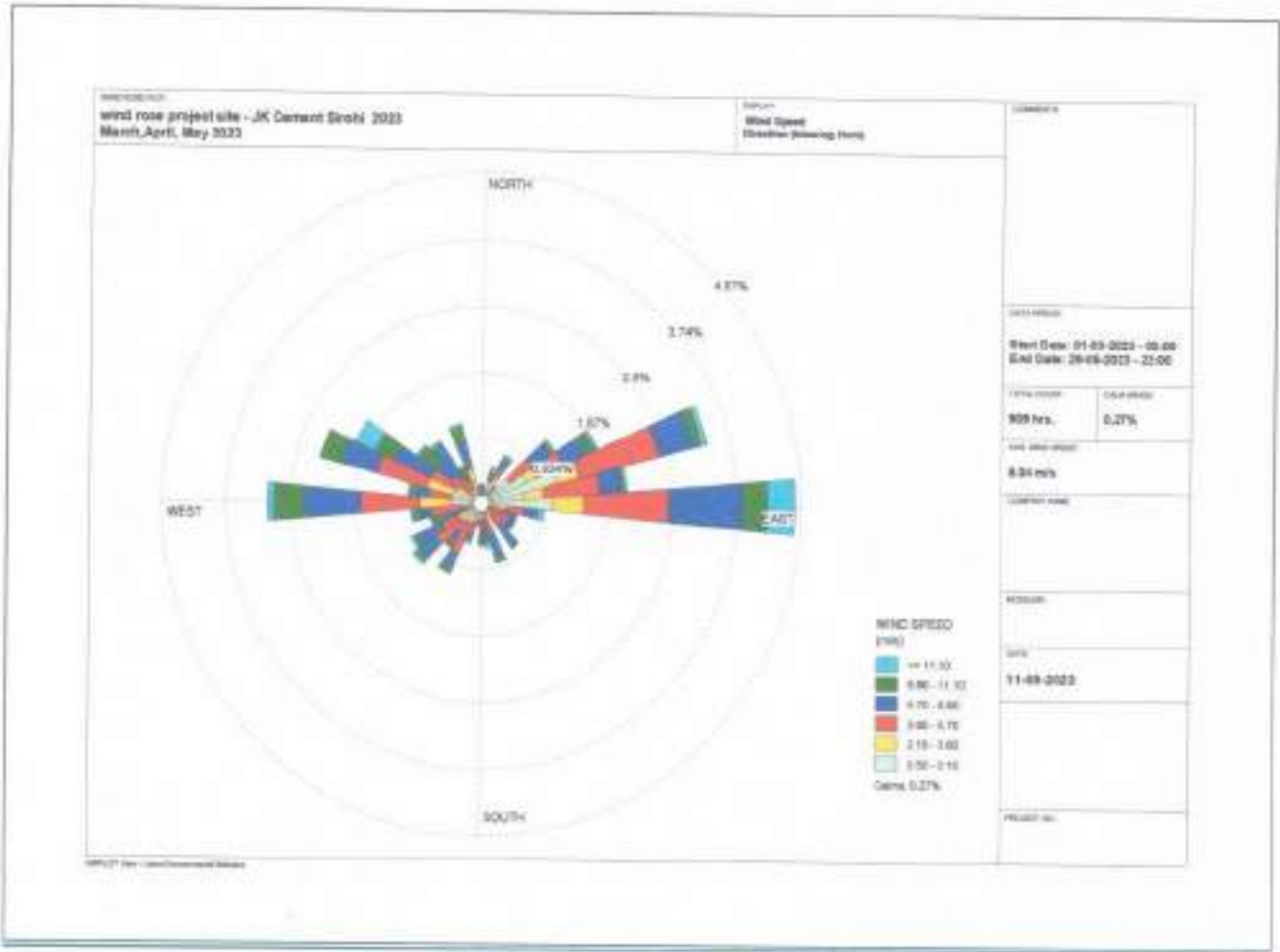
The predominant wind direction during this study period is observed to be blowing between WSW, SW, SSW, N directions. The average wind speed during this period is 12.4 m/s. Calm wind during this period 0.08% the recorded meteorological data of study period at project site is given below.

Month	Temperature (°C)		Relative Humidity (%)		Rainfall in mm		Wind Speed mps	
	Max	Min	Max	Min	Max	Min	Max	Min
MARCH- 2023	33.2	11.5	89.0	21.0	8.1	0.0	21.0	<1.0
APRIL- 2023	39.2	18.1	87.0	13.0	6.3	0.0	18.0	<1.0
MAY- 2023	42.2	18.4	89.0	10.0	8.2	0.0	24.0	<1.0

**WIND CLASS FREQUENCY CHART**



WIND ROSE DIAGRAM



Ambient Air Quality Monitoring Tested Results

The Ambient Air Quality has been monitored at nine locations as per work order. The tables showing Ambient Air Quality Tested Results in three months of pre monsoon season is as follows

Observations:

Location: AAQ-01 (Plant Site)		Sampling Duration: 24 hrs period				
S. No.	Date of Sampling	Parameters				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Standards		100 max	60 max	80 max	80 max	2000 max
1.0	01/03/2023	75.2	46.3	4.12	8.24	0.345
2.0	04/03/2023	82.6	48.1	3.65	9.31	0.468
3.0	07/03/2023	73.4	45.4	3.83	8.16	0.512
4.0	10/03/2023	81.6	49.6	3.75	9.04	0.491
5.0	14/03/2023	78.5	46.4	4.21	8.56	0.435
6.0	17/03/2023	77.2	47.1	3.86	9.34	0.391
7.0	21/03/2023	76.1	48.3	4.06	8.26	0.286
8.0	24/03/2023	73.9	47.5	3.89	7.15	0.368
9.0	27/03/2023	80.4	44.2	4.52	10.24	0.245
10	30/03/2023	83.6	47.6	5.34	10.63	0.239
11	02/04/2023	82.1	46.4	4.61	12.14	0.212
12	04/04/2023	79.6	48.1	4.83	10.26	0.316
13	07/04/2023	81.2	49.3	5.24	9.54	0.429
14	11/04/2023	80.9	50.1	6.12	8.26	0.234
15	14/04/2023	78.6	48.6	4.32	9.12	0.391
16	18/04/2023	76.2	49.1	5.15	11.34	0.294
17	21/04/2023	82.5	50.3	5.34	8.65	0.321
18	25/04/2023	73.5	43.6	5.68	11.61	0.396
19	28/04/2023	80.4	46.5	5.29	9.34	0.357
20	03/05/2023	82.3	47.6	4.34	8.12	0.331
21	06/05/2023	84.9	50.3	5.46	9.38	0.369
22	10/05/2023	78.2	49.4	3.94	8.76	0.261
23	13/05/2023	76.4	52.6	5.23	8.27	0.382
24	17/05/2023	81.3	48.9	4.81	7.64	0.246
25	20/05/2023	76.2	45.1	3.56	8.37	0.383
26	24/05/2023	74.1	46.3	3.13	9.42	0.216
27	27/05/2023	79.6	52.1	4.21	8.61	0.463
28	31/05/2023	80.1	47.4	4.56	9.05	0.392
<b>Minimum</b>		<b>73.40</b>	<b>43.60</b>	<b>3.13</b>	<b>7.15</b>	<b>0.21</b>
<b>Maximum</b>		<b>84.90</b>	<b>52.60</b>	<b>6.12</b>	<b>12.14</b>	<b>0.51</b>
<b>Average</b>		<b>78.76</b>	<b>47.79</b>	<b>4.49</b>	<b>9.10</b>	<b>0.34</b>
<b>98th Percentile</b>		<b>84.20</b>	<b>52.33</b>	<b>5.88</b>	<b>11.85</b>	<b>0.50</b>
<b>95th Percentile</b>		<b>83.25</b>	<b>51.47</b>	<b>5.60</b>	<b>11.52</b>	<b>0.48</b>
<b>Standard Deviation</b>		<b>3.27</b>	<b>2.16</b>	<b>0.74</b>	<b>1.19</b>	<b>0.09</b>



Location: AAQ-02 (Village:-Devali)			Sampling Duration: 24 hrs period			
S. No.	Date of Sampling	Parameters				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Standards		100 max	60 max	80 max	80 max	2000 max
1.0	01/03/2023	73.1	44.3	5.21	11.32	0.365
2.0	04/03/2023	70.5	42.5	4.63	9.24	0.416
3.0	07/03/2023	73.6	39.6	5.21	12.61	0.524
4.0	10/03/2023	78.1	41.8	4.98	8.24	0.395
5.0	14/03/2023	65.4	40.5	4.34	8.11	0.416
6.0	17/03/2023	70.9	42.9	5.13	9.64	0.525
7.0	21/03/2023	72.6	41.4	4.86	8.23	0.421
8.0	24/03/2023	74.4	43.3	3.98	7.55	0.298
9.0	27/03/2023	72.9	41.9	4.63	11.22	0.468
10	30/03/2023	71.5	40.2	4.51	10.29	0.391
11	02/04/2023	70.3	42.9	5.24	13.12	0.526
12	04/04/2023	73.4	40.5	5.86	11.85	0.345
13	07/04/2023	72.5	41.8	6.12	13.54	0.505
14	11/04/2023	73.9	43.4	4.35	9.12	0.391
15	14/04/2023	71.7	45.1	5.68	10.35	0.284
16	18/04/2023	72.4	41.3	4.62	9.86	0.261
17	21/04/2023	71.5	43.1	5.36	8.64	0.253
18	25/04/2023	72.8	41.6	4.69	8.12	0.412
19	28/04/2023	73.1	44.8	5.24	9.64	0.401
20	03/05/2023	71.9	41.4	4.96	11.26	0.536
21	06/05/2023	73.4	40.3	5.02	12.84	0.494
22	10/05/2023	71.2	43.4	5.64	13.41	0.612
23	13/05/2023	70.9	46.5	5.02	10.52	0.536
24	17/05/2023	72.4	40.0	4.64	9.81	0.498
25	20/05/2023	74.6	42.9	5.34	8.64	0.491
26	24/05/2023	71.9	46.1	5.26	8.91	0.312
27	27/05/2023	82.4	44.3	4.61	10.24	0.364
28	31/05/2023	70.3	41.5	4.23	8.75	0.472
<b>Minimum</b>		<b>65.40</b>	<b>39.60</b>	<b>3.98</b>	<b>7.55</b>	<b>0.25</b>
<b>Maximum</b>		<b>82.40</b>	<b>46.50</b>	<b>6.12</b>	<b>13.54</b>	<b>0.61</b>
<b>Average</b>		<b>72.38</b>	<b>42.38</b>	<b>4.94</b>	<b>10.09</b>	<b>0.42</b>
<b>98<sup>th</sup> Percentile</b>		<b>80.08</b>	<b>46.28</b>	<b>5.98</b>	<b>13.47</b>	<b>0.57</b>
<b>95<sup>th</sup> Percentile</b>		<b>76.88</b>	<b>45.75</b>	<b>5.80</b>	<b>13.31</b>	<b>0.54</b>
<b>Standard Deviation</b>		<b>2.83</b>	<b>1.83</b>	<b>0.51</b>	<b>1.76</b>	<b>0.09</b>



Location: AAQ-03 (Village:-Asawati) Sampling Duration: 24 hrs period

S. No.	Date of Sampling	Parameters				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Standards		100 max	60 max	80 max	80 max	2000 max
1.0	01/03/2023	77.3	42.3	4.12	10.24	0.512
2.0	04/03/2023	68.5	39.6	5.24	9.83	0.493
3.0	07/03/2023	71.1	40.4	5.31	11.34	0.624
4.0	10/03/2023	70.9	43.4	4.26	10.21	0.581
5.0	14/03/2023	67.3	41.1	5.25	9.83	0.387
6.0	17/03/2023	69.4	39.4	5.31	9.13	0.468
7.0	21/03/2023	72.6	40.3	5.36	8.98	0.491
8.0	24/03/2023	70.4	44.5	4.38	9.84	0.364
9.0	27/03/2023	73.6	41.1	5.12	8.55	0.251
10	30/03/2023	68.1	40.9	5.29	12.16	0.493
11	02/04/2023	69.3	42.2	4.27	11.24	0.361
12	04/04/2023	72.4	44.9	5.21	9.31	0.287
13	07/04/2023	70.9	41.6	4.98	8.54	0.246
14	11/04/2023	71.5	43.3	5.81	11.25	0.548
15	14/04/2023	68.8	42.4	5.42	9.44	0.313
16	18/04/2023	70.4	41.1	4.36	8.36	0.425
17	21/04/2023	72.1	43.9	5.21	9.54	0.301
18	25/04/2023	76.4	41.7	5.16	9.86	0.298
19	28/04/2023	67.2	44.5	4.38	8.12	0.345
20	03/05/2023	69.5	42.4	4.05	8.01	0.361
21	06/05/2023	71.4	46.9	5.81	10.54	0.425
22	10/05/2023	70.8	44.1	4.34	8.61	0.298
23	13/05/2023	67.6	43.2	5.38	9.12	0.325
24	17/05/2023	68.1	42.9	4.21	8.38	0.241
25	20/05/2023	72.9	45.6	3.98	8.12	0.364
26	24/05/2023	66.5	41.7	4.02	9.34	0.386
27	27/05/2023	64.2	40.8	5.13	9.87	0.354
28	31/05/2023	68.8	42.6	5.38	10.24	0.426
<b>Minimum</b>		<b>64.20</b>	<b>39.40</b>	<b>3.98</b>	<b>8.01</b>	<b>0.24</b>
<b>Maximum</b>		<b>77.30</b>	<b>46.90</b>	<b>5.81</b>	<b>12.16</b>	<b>0.62</b>
<b>Average</b>		<b>70.08</b>	<b>42.35</b>	<b>4.85</b>	<b>9.52</b>	<b>0.39</b>
<b>98<sup>th</sup> Percentile</b>		<b>76.81</b>	<b>46.20</b>	<b>5.81</b>	<b>11.72</b>	<b>0.60</b>
<b>95<sup>th</sup> Percentile</b>		<b>75.42</b>	<b>45.36</b>	<b>5.67</b>	<b>11.31</b>	<b>0.57</b>
<b>Standard Deviation</b>		<b>2.84</b>	<b>1.83</b>	<b>0.58</b>	<b>1.08</b>	<b>0.10</b>



Location: AAQ-04 (Village:-Pyala)

Sampling Duration: 24 hrs period

S. No.	Date of Sampling	Parameters				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Standards		100 max	60 max	80 max	80 max	2000 max
1.0	01/03/2023	68.4	45.4	3.36	7.24	0.512
2.0	04/03/2023	70.2	42.6	4.12	11.12	0.463
3.0	07/03/2023	72.6	38.5	4.36	9.36	0.425
4.0	10/03/2023	71.9	41.3	5.12	12.54	0.642
5.0	14/03/2023	69.2	40.2	4.21	10.38	0.585
6.0	17/03/2023	70.5	42.6	5.36	12.86	0.469
7.0	21/03/2023	72.3	46.1	5.94	12.34	0.394
8.0	24/03/2023	68.2	42.9	4.25	10.61	0.642
9.0	27/03/2023	71.8	45.8	5.41	12.89	0.598
10	30/03/2023	74.9	41.4	4.63	8.61	0.461
11	02/04/2023	70.1	40.9	3.94	13.45	0.546
12	04/04/2023	73.4	43.7	5.61	11.75	0.471
13	07/04/2023	76.8	41.2	4.96	12.69	0.502
14	11/04/2023	72.2	43.8	4.34	11.36	0.493
15	14/04/2023	69.4	42.2	5.42	12.75	0.501
16	18/04/2023	64.2	40.1	5.21	13.94	0.498
17	21/04/2023	69.1	38.6	6.63	10.28	0.521
18	25/04/2023	70.3	39.4	4.51	9.67	0.468
19	28/04/2023	68.1	40.8	6.86	14.58	0.647
20	03/05/2023	70.6	42.5	5.75	13.69	0.593
21	06/05/2023	72.4	41.1	5.36	12.45	0.521
22	10/05/2023	69.1	43.6	6.24	10.58	0.497
23	13/05/2023	68.8	40.5	5.46	9.83	0.526
24	17/05/2023	70.3	43.3	4.86	10.81	0.496
25	20/05/2023	72.4	41.0	5.62	12.24	0.249
26	24/05/2023	68.9	43.6	5.89	13.68	0.516
27	27/05/2023	64.5	42.9	6.42	11.29	0.646
28	31/05/2023	69.1	41.6	6.35	14.37	0.529
<b>Minimum</b>		<b>64.20</b>	<b>38.50</b>	<b>3.36</b>	<b>7.24</b>	<b>0.25</b>
<b>Maximum</b>		<b>76.80</b>	<b>46.10</b>	<b>6.86</b>	<b>14.58</b>	<b>0.65</b>
<b>Average</b>		<b>70.13</b>	<b>41.93</b>	<b>5.16</b>	<b>11.54</b>	<b>0.51</b>
<b>98<sup>th</sup> Percentile</b>		<b>75.77</b>	<b>45.94</b>	<b>6.74</b>	<b>14.47</b>	<b>0.65</b>
<b>95<sup>th</sup> Percentile</b>		<b>74.38</b>	<b>45.66</b>	<b>6.56</b>	<b>14.22</b>	<b>0.64</b>
<b>Standard Deviation</b>		<b>2.68</b>	<b>1.96</b>	<b>0.88</b>	<b>1.81</b>	<b>0.08</b>





Location: AAQ-05 (Village:-Dundsra)

Sampling Duration: 24 hrs period

S. No.	Date of Sampling	Parameters				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Standards		100 max	60 max	80 max	80 max	2000 max
1	01/03/2023	72.4	47.3	6.15	12.18	0.475
2	04/03/2023	73.5	42.1	7.61	15.06	0.587
3	07/03/2023	70.9	40.6	6.58	13.03	0.508
4	10/03/2023	72.4	43.9	6.09	12.07	0.471
5	14/03/2023	69.8	41.1	5.51	10.90	0.425
6	17/03/2023	72.1	39.7	5.98	11.83	0.461
7	21/03/2023	70.5	40.0	6.55	12.97	0.506
8	24/03/2023	72.0	43.5	5.69	11.27	0.440
9	27/03/2023	72.4	41.7	10.5	13.5	0.298
10	30/03/2023	70.8	40.2	11.3	14.5	0.305
11	02/04/2023	73.2	42.8	8.9	10.4	0.246
12	04/04/2023	76.1	45.5	15.4	18.1	0.485
13	07/04/2023	73.8	44.9	10.1	15.3	0.326
14	11/04/2023	76.4	45.1	13.2	16.0	0.418
15	14/04/2023	75.1	44.6	10.4	13.3	0.308
16	18/04/2023	78.5	46.2	9.9	12.1	0.267
17	21/04/2023	68.3	39.5	4.94	7.51	0.323
18	25/04/2023	70.2	41.1	5.52	8.40	0.361
19	28/04/2023	73.4	45.7	5.87	8.92	0.384
20	03/05/2023	69.8	40.6	7.15	10.87	0.467
21	06/05/2023	74.5	45.2	6.21	9.45	0.406
22	10/05/2023	72.1	42.8	5.49	8.34	0.359
23	13/05/2023	75.3	46.9	4.52	6.88	0.296
24	17/05/2023	72.9	41.2	5.44	8.26	0.355
25	20/05/2023	69.2	40.6	5.12	8.12	0.294
26	24/05/2023	67.3	42.3	4.94	7.34	0.345
27	27/05/2023	70.4	40.1	6.16	10.36	0.469
28	31/05/2023	73.6	39.5	5.21	10.15	0.516
<b>Minimum</b>		<b>67.30</b>	<b>39.50</b>	<b>4.52</b>	<b>6.88</b>	<b>0.25</b>
<b>Maximum</b>		<b>78.50</b>	<b>47.30</b>	<b>15.40</b>	<b>18.10</b>	<b>0.59</b>
<b>Average</b>		<b>72.21</b>	<b>42.56</b>	<b>7.27</b>	<b>11.17</b>	<b>0.39</b>
<b>98<sup>th</sup> Percentile</b>		<b>77.37</b>	<b>47.08</b>	<b>14.21</b>	<b>16.97</b>	<b>0.55</b>
<b>95<sup>th</sup> Percentile</b>		<b>76.30</b>	<b>46.66</b>	<b>12.54</b>	<b>15.76</b>	<b>0.51</b>
<b>Standard Deviation</b>		<b>2.57</b>	<b>2.45</b>	<b>2.77</b>	<b>2.88</b>	<b>0.09</b>



Location: AAQ-06 (Village:-Gadpuri)

Sampling Duration: 24 hrs period

S. No.	Date of Sampling	Parameters				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Standards		100 max	60 max	80 max	80 max	2000 max
1.0	68.2	39.4	4.12	7.35	0.315	68.2
2.0	70.4	41.6	4.98	8.61	0.426	70.4
3.0	72.8	43.5	5.12	8.94	0.328	72.8
4.0	68.4	67.4	4.32	7.25	0.297	68.4
5.0	70.7	42.8	5.44	11.46	0.561	70.7
6.0	68.3	38.6	6.24	12.83	0.628	68.3
7.0	71.2	39.7	4.37	10.51	0.469	71.2
8.0	70.6	38.1	4.12	8.64	0.438	70.6
9.0	68.8	39.9	3.94	7.52	0.391	68.8
10	69.7	41.1	5.47	9.94	0.458	69.7
11	72.5	43.4	4.81	12.21	0.612	72.5
12	70.7	41.1	5.46	11.64	0.402	70.7
13	68.2	38.8	4.34	9.24	0.391	68.2
14	71.6	39.1	5.82	13.12	0.467	71.6
15	73.4	42.2	5.86	12.81	0.628	73.4
16	70.9	41.1	4.34	10.67	0.475	70.9
17	68.7	38.7	5.98	9.83	0.334	68.7
18	71.1	39.8	7.24	10.45	0.429	71.1
19	73.5	42.2	5.12	12.12	0.581	73.5
20	71.9	43.4	4.68	9.82	0.374	71.9
21	68.3	38.7	3.82	8.34	0.252	68.3
22	66.4	35.1	3.15	7.61	0.245	66.4
23	69.2	40.4	5.28	9.27	0.452	69.2
24	72.4	43.2	6.45	12.54	0.516	72.4
25	70.9	41.7	5.42	11.21	0.641	70.9
26	71.6	43.5	4.91	10.34	0.589	71.6
27	73.4	40.7	4.25	9.81	0.458	73.4
28	70.0	38.2	3.97	8.22	0.397	70.0
Minimum		66.40	35.10	3.15	7.25	0.25
Maximum		73.50	67.40	7.24	13.12	0.64
Average		70.35	41.33	4.90	9.98	0.44
98 <sup>th</sup> Percentile		73.45	54.49	6.81	12.96	0.63
95 <sup>th</sup> Percentile		73.40	43.50	6.38	12.82	0.63
Standard Deviation		1.87	5.47	0.92	1.80	0.11



Location: AAQ-07 (Village:-Pirthala)

Sampling Duration: 24 hrs period

S. No.	Date of Sampling	Parameters				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Standards		100 max	60 max	80 max	80 max	2000 max
1	72.5	43.4	8.12	10.61	0.594	72.5
2	67.9	38.6	5.36	11.36	0.461	67.9
3	69.1	40.2	7.24	10.88	0.392	69.1
4	71.6	43.5	8.31	12.95	0.463	71.6
5	70.9	39.7	6.45	10.25	0.291	70.9
6	68.3	37.4	5.94	14.23	0.378	68.3
7	71.2	38.1	6.45	9.89	0.468	71.2
8	69.7	41.2	6.23	11.15	0.428	69.7
9	68.1	39.4	5.46	12.12	0.394	68.1
10	72.5	42.5	6.05	10.64	0.326	72.5
11	72.9	41.9	7.13	14.18	0.412	72.9
12	70.1	43.4	8.29	11.20	0.326	70.1
13	68.0	37.1	5.46	10.09	0.284	68.0
14	67.7	36.5	6.86	14.58	0.455	67.7
15	68.2	39.4	7.12	9.81	0.307	68.2
16	71.5	42.1	9.36	13.60	0.319	71.5
17	68.7	37.5	7.24	13.84	0.581	68.7
18	67.1	38.4	8.12	9.30	0.391	67.1
19	70.9	41.3	9.28	8.57	0.360	70.9
20	68.2	37.2	8.67	9.29	0.390	68.2
21	70.4	42.5	10.61	8.24	0.346	70.4
22	71.5	40.1	9.52	10.18	0.427	71.5
23	73.4	42.4	7.24	10.95	0.460	73.4
24	72.1	39.6	8.25	9.24	0.388	72.1
25	69.4	40.2	7.26	10.12	0.451	69.4
26	66.5	35.9	8.64	13.45	0.397	66.5
27	74.1	39.5	9.37	10.98	0.512	74.1
28	73.5	42.1	10.68	14.78	0.394	73.5
<b>Minimum</b>		<b>66.50</b>	<b>35.90</b>	<b>5.36</b>	<b>8.24</b>	<b>0.28</b>
<b>Maximum</b>		<b>74.10</b>	<b>43.50</b>	<b>10.68</b>	<b>14.78</b>	<b>0.59</b>
<b>Average</b>		<b>70.09</b>	<b>39.90</b>	<b>7.59</b>	<b>11.20</b>	<b>0.40</b>
<b>98<sup>th</sup> Percentile</b>		<b>73.78</b>	<b>43.45</b>	<b>10.64</b>	<b>14.67</b>	<b>0.59</b>
<b>95<sup>th</sup> Percentile</b>		<b>73.47</b>	<b>43.40</b>	<b>10.23</b>	<b>14.46</b>	<b>0.56</b>
<b>Standard Deviation</b>		<b>2.15</b>	<b>2.25</b>	<b>1.50</b>	<b>1.92</b>	<b>0.08</b>



Location: AAQ-08 (Village:-Baghaula)

Sampling Duration: 24 hrs period

S. No.	Date of Sampling	Parameters				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Standards		100 max	60 max	80 max	80 max	2000 max
1	72.0	41.4	6.19	9.90	0.495	72.0
2	71.2	41.9	6.78	10.85	0.542	71.2
3	76.8	47.2	5.42	9.78	0.215	76.8
4	72.1	43.4	8.12	10.46	0.301	72.1
5	70.6	41.7	10.29	15.58	0.465	70.6
6	72.4	41.1	13.40	16.45	0.310	72.4
7	73.9	44.9	9.17	12.54	0.296	73.9
8	71.0	42.1	8.51	10.78	0.322	71.0
9	71.6	42.8	10.23	15.56	0.501	71.6
10	73.4	44.5	11.49	13.34	0.467	73.4
11	69.7	39.2	5.50	8.20	0.377	69.7
12	73.8	42.1	6.51	9.70	0.446	73.8
13	75.2	46.7	8.71	12.98	0.597	75.2
14	74.1	42.9	7.69	11.45	0.527	74.1
15	76.0	45.3	6.06	9.03	0.415	76.0
16	72.5	42.8	7.21	8.24	0.461	72.5
17	76.8	43.9	6.45	9.37	0.394	76.8
18	70.2	38.9	5.94	10.12	0.584	70.2
19	68.9	37.2	8.12	11.37	0.618	68.9
20	64.1	36.5	6.83	13.94	0.594	64.1
21	73.4	42.8	5.91	14.57	0.378	73.4
22	71.8	40.1	8.45	12.59	0.491	71.8
23	70.9	38.1	6.21	11.38	0.612	70.9
24	73.4	42.5	5.34	14.97	0.537	73.4
25	68.5	39.7	7.83	12.46	0.591	68.5
26	70.3	42.2	8.91	13.59	0.468	70.3
27	72.8	43.9	9.24	14.51	0.397	72.8
28	74.6	41.7	7.31	12.16	0.502	74.6
<b>Minimum</b>		<b>64.10</b>	<b>36.50</b>	<b>5.34</b>	<b>8.20</b>	<b>0.22</b>
<b>Maximum</b>		<b>76.80</b>	<b>47.20</b>	<b>13.40</b>	<b>16.45</b>	<b>0.62</b>
<b>Average</b>		<b>71.93</b>	<b>41.86</b>	<b>7.70</b>	<b>11.86</b>	<b>0.45</b>
<b>98<sup>th</sup> Percentile</b>		<b>76.80</b>	<b>46.93</b>	<b>12.37</b>	<b>15.98</b>	<b>0.61</b>
<b>95<sup>th</sup> Percentile</b>		<b>76.52</b>	<b>46.21</b>	<b>11.07</b>	<b>15.57</b>	<b>0.61</b>
<b>Standard Deviation</b>		<b>2.70</b>	<b>2.60</b>	<b>1.95</b>	<b>2.32</b>	<b>0.11</b>



Observations:

**PM<sub>10</sub>:** The maximum value for PM<sub>10</sub> observed at **Dungri** 198.3  $\mu\text{g}/\text{m}^3$  and minimum value for PM<sub>10</sub> observed at **Banas Railway Station** 60.0  $\mu\text{g}/\text{m}^3$ . The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 100  $\mu\text{g}/\text{m}^3$ .

**PM<sub>2.5</sub>:** The maximum value for PM<sub>2.5</sub> observed at **Dungri** 105.1  $\mu\text{g}/\text{m}^3$  and minimum value for PM<sub>2.5</sub> observed at Village- **Dungri** 34.1  $\mu\text{g}/\text{m}^3$ . The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 60  $\mu\text{g}/\text{m}^3$ .

**SO<sub>2</sub>:** The maximum value for SO<sub>2</sub> observed at **Dungri** 13.4  $\mu\text{g}/\text{m}^3$  and minimum value for SO<sub>2</sub> observed at Village- **Kamboi** 3.6  $\mu\text{g}/\text{m}^3$ . The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80  $\mu\text{g}/\text{m}^3$ .

**NO<sub>2</sub>:** The maximum value for NO<sub>2</sub> observed at **Dungri** 19.9  $\mu\text{g}/\text{m}^3$  and minimum value for NO<sub>2</sub> observed at Village- **Kamboi** 5.5  $\mu\text{g}/\text{m}^3$ . The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80  $\mu\text{g}/\text{m}^3$ .

**CO:** The maximum value for CO observed at **Dungri** 920  $\mu\text{g}/\text{m}^3$  and minimum value for CO observed at Village- **Banas Railway Station** 150  $\mu\text{g}/\text{m}^3$ . The 8 hours applicable limit for Industrial, Residential Rural and other areas is 2000  $\mu\text{g}/\text{m}^3$ .



### NOISE MONITORING

The statistical analysis is done for measured noise levels at Eight locations in the study area. The parameters are analyzed for  $Leq_{Day}$ ,  $Leq_{Night}$  and  $Leq_{Day-Night}$ . The statistical analysis results are given below:

#### AMBIENT NOISE LEVELS IN THE STUDY AREA

Sample Code No.	Location Name	Noise Monitoring Date
N-1	Plant Site	28/03/2023
N-2	Village:-Devali	28/03/2023
N-3	Village:-Asawati	28/03/2023
N-4	Village:-Pyala	28/03/2023
N-5	Village:-Dundsa	30/03/2023
N-6	Village:-Gadpuri	30/03/2023
N-7	Village:-Pirthala	30/03/2023
N-8	Village:-Baghaura	30/03/2023



Time	N-1	N-2	N-3	N-4	N-5	N-6
<b>Day time</b>	<b>RESULTS dB (A)</b>					
6.00	51.4	50.1	46.7	50.1	46.8	50.9
7.00	50.2	52.3	50.1	49.9	49.9	51.4
8.00	53.4	51.4	52.3	51.1	50.1	50.6
9.00	55.9	53.0	50.7	50.3	52.3	51.1
10.00	52.3	51.5	51.9	49.7	50.4	49.9
11.00	56.4	49.8	50.8	50.0	51.8	51.8
12 Noon	53.2	50.1	49.9	51.7	49.6	50.1
13.00	50.1	52.6	51.7	49.6	50.1	49.6
14.00	49.5	51.4	50.3	50.2	48.7	51.3
15.00	50.6	50.9	49.8	47.3	51.3	50.2
16.00	53.2	51.9	52.0	50.1	50.2	47.3
17.00	48.7	53.1	50.4	49.9	49.8	49.9
18.00	52.3	50.1	49.6	48.5	46.3	50.1
19.00	49.6	47.6	50.1	47.2	49.7	48.8
20.00	48.5	45.6	48.7	45.1	47.3	47.5
21.00	47.6	46.9	46.5	43.2	46.1	46.5
<b>Night time</b>	<b>RESULTS dB (A)</b>					
22.00	46.3	48.5	44.2	41.0	45.2	44.1
23.00	44.2	43.1	42.1	39.9	43.3	42.0
24.00	42.1	41.6	40.9	37.5	41.2	40.1
1.00	39.8	40.7	37.8	40.1	39.8	40.7
2.00	41.5	42.3	39.5	42.2	41.1	42.5
3.00	43.6	44.5	41.1	44.5	42.5	44.5
4.00	45.1	46.9	43.2	46.7	43.6	46.6
5.00	49.8	48.8	45.0	48.1	45.1	48.1
<b>Leq Day</b>	<b>52.3</b>	<b>51.9</b>	<b>50.7</b>	<b>51.0</b>	<b>51.4</b>	<b>52.8</b>
<b>Leq Night</b>	<b>42.6</b>	<b>41.5</b>	<b>40.6</b>	<b>40.8</b>	<b>41.3</b>	<b>42.9</b>
<b>Leq Day &amp; Night</b>	<b>53.9</b>	<b>52.6</b>	<b>51.9</b>	<b>52.9</b>	<b>53.0</b>	<b>53.3</b>

Category of Zones	Leq in dB(A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence	50	40

1. Day time if from 6.00am to 10 pm
2. Night time if from 10.00 pm to 6 am
3. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority.
4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority



Time	N-7	N-8
<b>Day time</b>	<b>RESULTS dB (A)</b>	
6.00	52.2	50.1
7.00	50.1	52.4
8.00	53.3	50.6
9.00	50.1	49.9
10.00	52.8	50.1
11.00	50.1	51.7
<b>12 Noon</b>	49.6	53.2
13.00	48.5	50.1
14.00	50.1	49.8
15.00	51.3	50.7
16.00	49.6	49.6
17.00	50.2	50.2
18.00	48.7	48.7
19.00	50.1	47.3
20.00	47.3	45.6
21.00	45.5	44.5
<b>Night time</b>	<b>RESULTS dB (A)</b>	
22.00	43.2	43.2
23.00	40.1	41.2
24.00	39.5	38.9
1.00	41.5	42.5
2.00	43.9	43.3
3.00	45.0	45.1
4.00	47.8	46.8
5.00	50.1	48.9
<b>Leq Day</b>	<b>50.0</b>	<b>51.1</b>
<b>Leq Night</b>	<b>41.9</b>	<b>42.3</b>
<b>Leq Day &amp; Night</b>	<b>51.8</b>	<b>52.9</b>

Category of Zones	Leq in dB(A)	
	Day	Night
<b>Industrial</b>	75	70
<b>Commercial</b>	65	55
<b>Residential</b>	55	45
<b>Silence</b>	50	40

1. Day time if from 6.00am to 10 pm
2. Night time if from 10.00 pm to 6 am
3. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority.
4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.





**Observations**

**a) Day Time Noise Levels (Leq<sub>day</sub>)**

The daytime (Leq<sub>day</sub>) noise levels are observed in **Plant Site** to be in the range of 52.3 dB(A) which are within the prescribed limit of 75 dB(A) and in residential areas to be in the range of 50.0 – 52.8 dB(A) which are within the prescribed limit of 55 dB(A).

**b) Night time Noise Levels (Leq<sub>night</sub>)**

The nighttime (Leq<sub>night</sub>) noise levels are observed in **Silva** to be in the range of 42.9 dB(A) which are within the prescribed limit of 70 dB(A) and in residential areas to be in the range of 40.6 – 42.9 dB(A) which are within the prescribed limit of 45 dB(A).

**GROUND WATER QUALITY**

Eight Ground water samples and one surface water sample around the project Area were collected and analyzed. The analytical results are given below.

Sample code No	Location Name	Source	Date of sampling
GW-1	Plant Site	Plant Site	28/03/2023
GW-2	Village:-Devali	Village:-Devali	28/03/2023
GW-3	Village:-Pahladpur	Village:-Asawati	28/03/2023
GW-4	Village:-Pyala	Village:-Pyala	28/03/2023
GW-5	Village:-Dundsa	Village:-Dundsa	30/03/2023
GW-6	Village:-Gadpuri	Village:-Gadpuri	30/03/2023
GW-7	Village:-Pirhala	Village:-Pirhala	30/03/2023
GW-8	Village:-Baghaura	Village:-Baghaura	30/03/2023
SW-1	Pahladpur Distributary	Pahladpur Distributary	28/03/2023
SW-2	Agra Canal	Agra Canal	28/03/2023
SW-3	Village:-Pirhala Pond	Village:-Pirhala Pond	30/03/2023



**GROUND WATER ANALYSIS RESULTS AS PER IS: 10500-2012**

S.No	Parameter	Test Method	Units	GW1	GW2	Acceptable Limit	Permissible Limit
1	Color	APHA(23rdEdition)2120B	Hazen	<1	<1	5	15
2	pH	APHA(23rdEdition)4500H	-	7.02	7.28	6.5-8.5	No Relaxation
3	Turbidity	APHA(23rdEdition)2130	NTU	0.14	0.18	1	5
4	Total Dissolved Solids	APHA(23rdEdition)2540C	mg/l	423	461	500	2000
5	Electrical Conductivity	APHA(23rdEdition)2510B	µS/cm	651	709	-	-
6	Aluminum as Al	APHA(23rdEdition)3111D	mg/l	<0.01	<0.01	0.03	0.2
7	Ammonia (astotalammonia-N)	IS3025(Part34)	mg/l	<0.2	<0.2	0.5	No Relaxation
8	Anionic Detergents as MBAS	APHA(23rdEdition)5540C	mg/l	<0.1	<0.1	0.2	1.0
9	Barium as Ba	APHA(23rdEdition)3560Ba	mg/l	<0.1	<0.1	0.7	No Relaxation
10	Boron as B	APHA(23rdEdition)4500B-B	mg/l	<0.1	<0.1	0.3	1.0
11	Calcium as Ca	APHA(23rdEdition)3500CaB	mg/l	31.10	36.93	75	200
12	Chloramines	IS3025(Part26)	mg/l	<1.0	<1.0	4.0	No Relaxation
13	Chloride as Cl	APHA(23rdEdition)4500Cl-B	mg/l	102.25	126.25	250	1000
14	Copper as Cu	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.05	1.5
15	Fluoride as F	APHA(23rdEdition)4500FD	mg/l	0.25	0.29	1.0	1.5
16	Free Residual Chlorine	APHA(23rdEdition)4500ClB	mg/l	<0.1	<0.1	0.2	1.0
17	Iron as Fe	APHA(23rdEdition)3111B	mg/l	0.06	0.08	0.3	No Relaxation
18	Magnesium as Mg	APHA(23rdEdition)3500MgB	mg/l	14.19	14.85	30	100
19	Manganese as Mn	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.1	0.3
20	Nitrate as NO <sub>3</sub>	APHA(23rdEdition)4500B	mg/l	4.32	5.15	45	No Relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	APHA(23rdEdition)5530C	mg/l	<0.001	<0.001	0.001	0.002
22	Selenium as Se	APHA(23rdEdition)3114B&C	mg/l	<0.01	<0.01	0.01	No Relaxation
23	Sulphate as SO <sub>4</sub>	APHA(23rdEdition)4500E	mg/l	17.00	19.85	200	400
24	Total Alkalinity as CaCO <sub>3</sub>	APHA(23rdEdition)2320	mg/l	123	136	200	600
25	Total Hardness as CaCO <sub>3</sub>	APHA(23rdEdition)2340C	mg/l	136	153.26	200	600
26	Zinc as Zn	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	5.0	15
27	Cadmium as Cd	APHA(23rdEdition)3111B	mg/l	<0.005	<0.003	0.003	No Relaxation
28	Lead as Pb	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.1	No Relaxation
29	Mercury as Hg	APHA(23rdEdition)3112B	mg/l	<0.001	<0.001	0.001	No Relaxation
30	Total Arsenic as As	APHA(23rdEdition)3114B	mg/l	<0.005	<0.005	0.01	0.05
31	Total Chromium as Cr	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.05	No Relaxation
32	Sulphide as S	APHA(23rdEdition)4500F	mg/l	<0.05	<0.05	0.05	No Relaxation
33	Nickel as Ni	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.02	No Relaxation



S.No	Parameter	Test Method	Units	GW3	GW4	Acceptable Limit	Permissible Limit
1	Color	APHA(23rdEdition)2120B	Hazen	<1	<1	5	15
2	pH	APHA(23rdEdition)4500H	-	7.19	7.26	6.5-8.5	No Relaxation
3	Turbidity	APHA(23rdEdition)2130	NTU	0.16	0.15	1	5
4	Total Dissolved Solids	APHA(23rdEdition)2540C	mg/l	502	528	500	2000
5	Electrical Conductivity	APHA(23rdEdition)2510B	µS/cm	772	813	-	-
6	Aluminum as Al	APHA(23rdEdition)3111D	mg/l	<0.01	<0.01	0.03	0.2
7	Ammonia (as total ammonia-N)	IS:3025(Part 34)	mg/l	<0.2	<0.2	0.5	No Relaxation
8	Anionic Detergents as MBAS	APHA(23rdEdition)5540C	mg/l	<0.1	<0.1	0.2	1.0
9	Barium as Ba	APHA(23rdEdition)3500Ba	mg/l	<0.1	<0.1	0.7	No Relaxation
10	Boron as B	APHA(23rdEdition)4500B-D	mg/l	<0.1	<0.1	0.5	1.0
11	Calcium as Ca	APHA(23rdEdition)3500CaB	mg/l	38.88	36.93	75	200
12	Chloramines	IS:3025(Part 26)	mg/l	<1.0	<1.0	4.0	No Relaxation
13	Chloride as Cl	APHA(23rdEdition)4500Cl-B	mg/l	135.79	147.82	250	1000
14	Copper as Cu	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.05	1.5
15	Fluoride as F	APHA(23rdEdition)4500FD	mg/l	0.33	0.36	1.0	1.5
16	Free Residual Chlorine	APHA(23rdEdition)4500ClB	mg/l	<0.1	<0.1	0.2	1.0
17	Iron as Fe	APHA(23rdEdition)3111B	mg/l	0.10	0.11	0.3	No Relaxation
18	Magnesium as Mg	APHA(23rdEdition)3500MgB	mg/l	12.39	17.36	30	100
19	Manganese as Mn	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.1	0.3
20	Nitrate as NO <sub>3</sub>	APHA(23rdEdition)4500B	mg/l	5.44	5.69	45	No Relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> -OH	APHA(23rdEdition)5530C	mg/l	<0.001	<0.001	0.001	0.002
22	Selenium as Se	APHA(23rdEdition)3114B&C	mg/l	<0.01	<0.01	0.01	No Relaxation
23	Sulphate as SO <sub>4</sub>	APHA(23rdEdition)4500E	mg/l	20.63	20.82	200	400
24	Total Alkalinity as CaCO <sub>3</sub>	APHA(23rdEdition)2320	mg/l	145	166	200	600
25	Total Hardness as CaCO <sub>3</sub>	APHA(23rdEdition)2340C	mg/l	148	163.59	200	600
26	Zinc as Zn	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	5	15
27	Cadmium as Cd	APHA(23rdEdition)3111B	mg/l	<0.003	<0.003	0.003	No Relaxation
28	Lead as Pb	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.1	No Relaxation
29	Mercury as Hg	APHA(23rdEdition)3112B	mg/l	<0.001	<0.001	0.001	No Relaxation
30	Total Arsenic as As	APHA(23rdEdition)3114B	mg/l	<0.005	<0.005	0.01	0.05
31	Total Chromium as Cr	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.05	No Relaxation
32	Sulphide as S	APHA(23rdEdition)4500F	mg/l	<0.05	<0.05	0.05	No Relaxation
33	Nickel as Ni	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.02	No Relaxation



S.No	Parameter	Test Method	Units	GW5	GW6	Acceptable Limit	Permissible Limit
1	Color	APHA(23rdEdition)2120B	Hazen	<1	<1	5	15
2	pH	APHA(23rdEdition)4500H	-	7.22	7.60	6.5-8.5	No Relaxation
3	Turbidity	APHA(23rdEdition)2130	NTU	0.12	0.13	1	5
4	Total Dissolved Solids	APHA(23rdEdition)2540C	mg/l	488	421	500	2000
5	Electrical Conductivity	APHA(23rdEdition)2510B	µS/cm	750	648	-	-
6	Aluminum as Al	APHA(23rdEdition)3111D	mg/l	<0.01	<0.01	0.03	0.2
7	Ammonia (as total ammonia-N)	IS3025(Part34)	mg/l	<0.2	<0.2	0.5	No Relaxation
8	Anionic Detergents as MBAS	APHA(23rdEdition)5540C	mg/l	<0.1	<0.1	0.2	1.0
9	Barium as Ba	APHA(23rdEdition)3500Ba	mg/l	<0.1	<0.1	0.7	No Relaxation
10	Boron as B	APHA(23rdEdition)4500B-B	mg/l	<0.1	<0.1	0.5	1.0
11	Calcium as Ca	APHA(23rdEdition)3500CaB	mg/l	31.10	28.64	75	200
12	Chloramines	IS3025(Part26)	mg/l	<1.0	<1.0	4.0	No Relaxation
13	Chloride as Cl	APHA(23rdEdition)4500Cl-B	mg/l	149.94	123.95	250	1000
14	Copper as Cu	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.05	1.5
15	Fluoride as F	APHA(23rdEdition)4500FD	mg/l	0.33	0.27	1.0	1.5
16	Free Residual Chlorine	APHA(23rdEdition)4500ClB	mg/l	<0.1	<0.1	0.2	1.0
17	Iron as Fe	APHA(23rdEdition)3111B	mg/l	9.12	0.16	0.3	No Relaxation
18	Magnesium as Mg	APHA(23rdEdition)3500MgB	mg/l	19.93	14.78	30	100
19	Manganese as Mn	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.1	0.3
20	Nitrate as NO <sub>3</sub>	APHA(23rdEdition)4500B	mg/l	4.73	3.82	45	No Relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	APHA(23rdEdition)5530C	mg/l	<0.001	<0.001	0.001	0.002
22	Selenium as Se	APHA(23rdEdition)3114B&C	mg/l	<0.01	<0.01	0.01	No Relaxation
23	Sulphate as SO <sub>4</sub>	APHA(23rdEdition)4500E	mg/l	19.69	15.72	200	400
24	Total Alkalinity as CaCO <sub>3</sub>	APHA(23rdEdition)2320	mg/l	140.22	128.40	200	600
25	Total Hardness as CaCO <sub>3</sub>	APHA(23rdEdition)2340C	mg/l	159.64	132.28	200	600
26	Zinc as Zn	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	5	15
27	Cadmium as Cd	APHA(23rdEdition)3111B	mg/l	<0.003	<0.003	0.003	No Relaxation
28	Lead as Pb	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.1	No Relaxation
29	Mercury as Hg	APHA(23rdEdition)3112B	mg/l	<0.001	<0.001	0.001	No Relaxation
30	Total Arsenic as As	APHA(23rdEdition)3114B	mg/l	<0.005	<0.005	0.01	0.05
31	Total Chromium as Cr	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.05	No Relaxation
32	Sulphide as S	APHA(23rdEdition)4500F	mg/l	<0.05	<0.05	0.05	No Relaxation
33	Nickel as Ni	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.02	No Relaxation



S.No	Parameter	Test Method	Units	GW7	GW8	Acceptable Limit	Permissible Limit
1	Color	APHA(23rdEdition)2120B	Hazen	<1	<1	5	15
2	pH	APHA(23rdEdition)4500H	-	6.92	6.98	6.5-8.5	No Relaxation
3	Turbidity	APHA(23rdEdition)2130	NTU	0.16	0.17	1	5
4	Total Dissolved Solids	APHA(23rdEdition)2540C	mg/l	589	546	500	2000
5	Electrical Conductivity	APHA(23rdEdition)2510B	µS/cm	906	840	-	-
6	Aluminum as Al	APHA(23rdEdition)3111D	mg/l	<0.01	<0.01	0.03	0.2
7	Ammonia (as total ammonia-N)	IS3025(Part34)	mg/l	<0.2	<0.2	0.5	No Relaxation
8	Anionic Detergents as MBAS	APHA(23rdEdition)5540C	mg/l	<0.1	<0.1	0.2	1.0
9	Barium as Ba	APHA(23rdEdition)3500Ba	mg/l	<0.1	<0.1	0.7	No Relaxation
10	Boron as B	APHA(23rdEdition)4500B-B	mg/l	<0.1	<0.1	0.5	1.0
11	Calcium as Ca	APHA(23rdEdition)3500CaB	mg/l	29.16	23.33	75	200
12	Chloramines	IS3025(Part26)	mg/l	<1.0	<1.0	4.0	No Relaxation
13	Chloride as Cl	APHA(23rdEdition)4500Cl-B	mg/l	210.29	192.94	250	1000
14	Copper as Cu	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.05	1.5
15	Fluoride as F	APHA(23rdEdition)4500FD	mg/l	0.77	0.84	1.0	1.5
16	Free Residual Chlorine	APHA(23rdEdition)4500ClB	mg/l	<0.1	<0.1	0.2	1.0
17	Iron as Fe	APHA(23rdEdition)3111B	mg/l	0.15	0.11	0.3	No Relaxation
18	Magnesium as Mg	APHA(23rdEdition)3500MgB	mg/l	26.06	22.85	30	100
19	Manganese as Mn	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.1	0.3
20	Nitrate as NO <sub>3</sub>	APHA(23rdEdition)4500B	mg/l	8.17	7.45	45	No Relaxation
21	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	APHA(23rdEdition)5530C	mg/l	<0.001	<0.001	0.001	0.002
22	Selenium as Se	APHA(23rdEdition)3114B&C	mg/l	<0.01	<0.01	0.01	No Relaxation
23	Sulphate as SO <sub>4</sub>	APHA(23rdEdition)4500E	mg/l	22.63	20.18	200	400
24	Total Alkalinity as CaCO <sub>3</sub>	APHA(23rdEdition)2320	mg/l	149	134.58	200	600
25	Total Hardness as CaCO <sub>3</sub>	APHA(23rdEdition)2340C	mg/l	180.28	152.24	200	600
26	Zinc as Zn	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	5	15
27	Cadmium as Cd	APHA(23rdEdition)3111B	mg/l	<0.003	<0.003	0.003	No Relaxation
28	Lead as Pb	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.1	No Relaxation
29	Mercury as Hg	APHA(23rdEdition)3112B	mg/l	<0.001	<0.001	0.001	No Relaxation
30	Total Arsenic as As	APHA(23rdEdition)3114B	mg/l	<0.005	<0.005	0.01	0.05
31	Total Chromium as Cr	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.05	No Relaxation
32	Sulphide as S	APHA(23rdEdition)4500F	mg/l	<0.05	<0.05	0.05	No Relaxation
33	Nickel as Ni	APHA(23rdEdition)3111B	mg/l	<0.01	<0.01	0.02	No Relaxation



**SURFACE WATER ANALYSIS RESULTS**

S.No.	Parameters	Unit	Test Method	SW-1	SW-2
1	pH	-	APHA(23rdEdition)4500H	8.05	7.16
2	Turbidity	NTU	APHA(23rdEdition)2130	0.36	0.44
3	Total Hardness as CaCO <sub>3</sub>	mg/l	APHA(23rdEdition)2340C	280	262
4	Total Alkalinity as CaCO <sub>3</sub>	mg/l	APHA(23rdEdition)2320	210	192
5	Chlorides as Cl	mg/l	APHA(23rdEdition)4500CFB	227.53	218.98
6	Sulphate as SO <sub>4</sub>	mg/l	APHA(23rdEdition)4500E	64	52.47
7	Nitrate as NO <sub>3</sub>	mg/l	APHA(23rdEdition)4500NO <sub>3</sub> B	18.70	16.03
8	Fluoride as F	mg/l	APHA(23rdEdition)4500FD	0.51	0.43
9	BOD <sub>5</sub> Day@17°C	mg/l	IS3025(Part44)	15	8.2
10	COD	mg/l	APHA(23rdEdition)5220B	60	39.28
11	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/l	APHA(23rdEdition)5530C	<0.001	<0.001
12	Lead as Pb	mg/l	APHA(23rdEdition)3111B	<0.01	<0.01
13	Iron as Fe	mg/l	APHA(23rdEdition)3111B	0.03	<0.01
14	Arsenic as As	mg/l	APHA(23rdEdition)3114B	<0.005	<0.005
15	Cadmium as Cd	mg/l	APHA(23rdEdition)3111B	<0.003	<0.003
16	Total Chromium as Cr	mg/l	APHA(23rdEdition)3111B	<0.01	<0.01
17	Mercury as Hg	mg/l	APHA(23rdEdition)3112B	<0.001	<0.001
18	Copper as Cu	mg/l	APHA(23rdEdition)3111B	<0.01	<0.01
19	Zinc as Zn	mg/l	APHA(23rdEdition)3111B	<0.01	<0.01
20	Selenium as Se	mg/l	APHA(23rdEdition)3114B&C	<0.01	<0.01
21	Oil & grease	mg/l	APHA(23rdEdition)5520B	3.26	1.06
22	Colour	Hazen	APHA(23rdEdition)2120B	<1.0	<1.0
23	Total Dissolved Solids	mg/l	APHA(23rdEdition)2540C	928	832
24	Residual Free Chlorine	mg/l	APHA(23rdEdition)4500C1B	<0.2	<0.2
25	Boron as B	mg/l	APHA(23rdEdition)4500B-B	<0.10	<0.10
26	Calcium as Ca	mg/l	APHA(23rdEdition)3500CaB	54.20	49.80
27	Magnesium as Mg	mg/l	APHA(23rdEdition)3500MgB	35.18	34.00
28	Dissolved Oxygen	mg/l	APHA(23rdEdition)4500DOC	5.2	5.5
29	Total Coliform	CFU /100ml	IS15185	>1500	>1500
30	E.Coli	CFU /100ml	IS15185	Absent	Absent



### SURFACE WATER ANALYSIS RESULTS

S.No.	Parameters	Unit	Test Method	SW-3
1	pH	-	APHA(23rdEdition)4500H	7.55
2	Turbidity	NTU	APHA(23rdEdition)2130	0.36
3	Total Hardness as CaCO <sub>3</sub>	mg/l	APHA(23rdEdition)2340C	228
4	Total Alkalinity as CaCO <sub>3</sub>	mg/l	APHA(23rdEdition)2320	263.2
5	Chlorides as Cl	mg/l	APHA(23rdEdition)4500CTB	187.07
6	Sulphate as SO <sub>4</sub>	mg/l	APHA(23rdEdition)4500E	48.36
7	Nitrate as NO <sub>3</sub>	mg/l	APHA(23rdEdition)4500NO <sub>3</sub> B	12.98
8	Fluoride as F	mg/l	APHA(23rdEdition)4500FD	0.76
9	BOD <sub>5</sub> @ 20°C	mg/l	IS1025(Part44)	22.71
10	COD	mg/l	APHA(23rdEdition)5220B	120
11	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/l	APHA(23rdEdition)5530C	<0.001
12	Lead as Pb	mg/l	APHA(23rdEdition)3111B	<0.01
13	Iron as Fe	mg/l	APHA(23rdEdition)3111B	0.11
14	Arsenic as As	mg/l	APHA(23rdEdition)3114B	<0.005
15	Cadmium as Cd	mg/l	APHA(23rdEdition)3111B	<0.003
16	Total Chromium as Cr	mg/l	APHA(23rdEdition)3111B	<0.01
17	Mercury as Hg	mg/l	APHA(23rdEdition)3112B	<0.001
18	Copper as Cu	mg/l	APHA(23rdEdition)3111B	<0.01
19	Zinc as Zn	mg/l	APHA(23rdEdition)3111B	<0.01
20	Selenium as Se	mg/l	APHA(23rdEdition)3114B&C	<0.01
21	Oil & grease	mg/l	APHA(23rdEdition)5520B	5.29
22	Colour	Hazen	APHA(23rdEdition)2120B	<1.0
23	Total Dissolved Solids	mg/l	APHA(23rdEdition)2540C	853
24	Residual Free Chlorine	mg/l	APHA(23rdEdition)4500CIB	<0.2
25	Boron as B	mg/l	APHA(23rdEdition)4500B-B	<0.10
26	Calcium as Ca	mg/l	APHA(23rdEdition)3500CaB	50.29
27	Magnesium as Mg	mg/l	APHA(23rdEdition)3500MgB	24.91
28	Dissolved Oxygen	mg/l	APHA(23rdEdition)4500DOC	4.7
29	Total Coliform	CFU /100ml	IS15185	>1500
30	E.Coli	CFU /100ml	IS15185	Absent



### SOIL QUALITY

Eight soil samples around the project area were collected and analyzed. The analytical results are given in below.

#### SOIL SAMPING LOCATIONS

Soil Sample Code No.	Location Name	Date of sampling
S-1	Plant Site	28/03/2023
S-2	Village:-Devali	28/03/2023
S-3	Village:-Asawati	28/03/2023
S-4	Village:-Pyala	28/03/2023
S-5	Village:-Dunds	30/03/2023
S-6	Village:-Gadpuri	30/03/2023
S-7	Village:-Pirthala	30/03/2023
S-8	Village:-Baghaua	30/03/2023

### SOIL ANALYSIS

S.No.	Parameters	Unit	S-1	S-2	S-3	S-4	
1	Colour	-	Brown	Brown	Brown	Brown	
2	Texture	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	
3	Particle Size Distributions	Sand	%	42	38	39	45
		Silt	%	26	28	25	21
		Clay	%	32	34	36	34
4	pH(1:5Solution)	-	7.78	8.10	8.23	7.71	
5	Electrical Conductivity	µS/cm.	250	289	243	210	
6	Bulk Density	gm/cm <sup>3</sup>	1.45	1.40	1.53	1.43	
7	Porosity	%v/v	29	25	26	27	
8	Organic Carbon	%	0.35	0.38	0.33	0.29	
9	Sodium(Na)	mg/100gm	24.0	26.0	32.0	29.1	
10	Potassium(K)	mg/100gm	40.0	35.0	45.0	36.4	
11	Moisture Content	%	6.5	7.1	7.9	7.7	
12	Total Nitrogen	mg/100gm	30.0	33.0	22.0	21.0	
13	Available Phosphorous	kg/hectare	15.4	16.2	13.28	10.34	
14	Organic Matter	%	0.61	0.65	0.57	0.51	
15	Total Soluble Chloride	mg/kg	180	210	242	219	
16	Total Soluble Sulphate	%	0.031	0.042	0.035	0.033	
17	Water Holding Capacity	%	31	36	40	38	





## SOIL ANALYSIS

S.No.	Parameters	Unit	S-5	S-6	S-7	S-8	
1	Colour	-	Brown	Brown	Brown	Brown	
2	Texture	-	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	
3	Particle size Distributions	Sand	%	39	42	43	46
		Silt	%	27	26	22	24
		Clay	%	34	32	35	30
4	pH(1:5Solution)	-	7.96	8.25	7.90	7.80	
5	Electrical Conductivity	µS/cm.	203	277	228	193	
6	Bulk Density	gm/cm <sup>3</sup>	1.39	1.46	1.52	1.41	
7	Porosity	%v/v	31	28	26	32	
8	Organic Carbon	%	0.25	0.36	0.28	0.23	
9	Sodium(Na)	mg/100gm	28.0	24.0	19.0	25.0	
10	Potassium(K)	mg/100gm	34.58	32.0	33.0	30.0	
11	Moisture Content	%	7.9	6.8	8.2	6.4	
12	Total Nitrogen	mg/100gm	20.0	30.0	19.0	20.0	
13	Available Phosphorous	kg/hectare	9.27	12.8	8.7	7.4	
14	Organic Matter	%	0.44	0.63	0.49	0.39	
15	Total Soluble Chloride	mg/kg	202.52	189	175	150	
16	Total Soluble Sulphate	%	0.03	0.045	0.028	0.029	
17	Water Holding Capacity	%	38	39	31.2	43	

### Results & Conclusions

The soil analysis results are presented in Table. The result obtained is compared with the standard soil classification given Agriculture Soil Limits. It has been observed that the soils are **Sandy Clay** in texture and neutral in nature. The nutrient and organic matter contents are medium and the soil is normally fertile.



NABL CERTIFICATE





National Accreditation Board for  
Testing and Calibration Laboratories

NABL

**CERTIFICATE OF ACCREDITATION**

**ALKOM SYNERGY PVT. LTD.**

has been assessed and accredited in accordance with the standard

**ISO/IEC 17025:2017**

**"General Requirements for the Competence of Testing &  
Calibration Laboratories"**

for its facilities at

C-212, 2ND FLOOR SECTOR -10, NOIDA, UTTAR PRADESH, INDIA

in the field of

**TESTING**

Certificate Number: TC-9580

Issue Date: 08/06/2023

Valid Until:

07/06/2025

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.  
(To see the scope of accreditation of this laboratory, you may also visit NABL website [www.nabl-india.org](http://www.nabl-india.org))

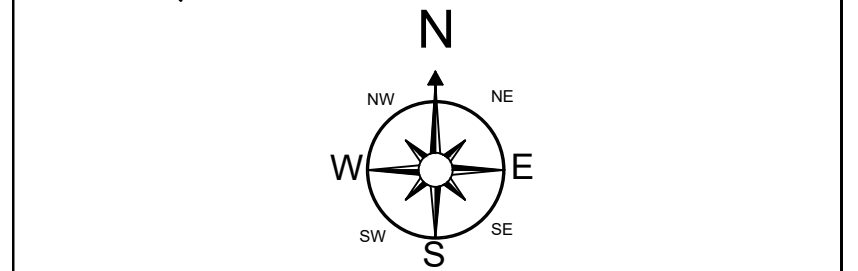
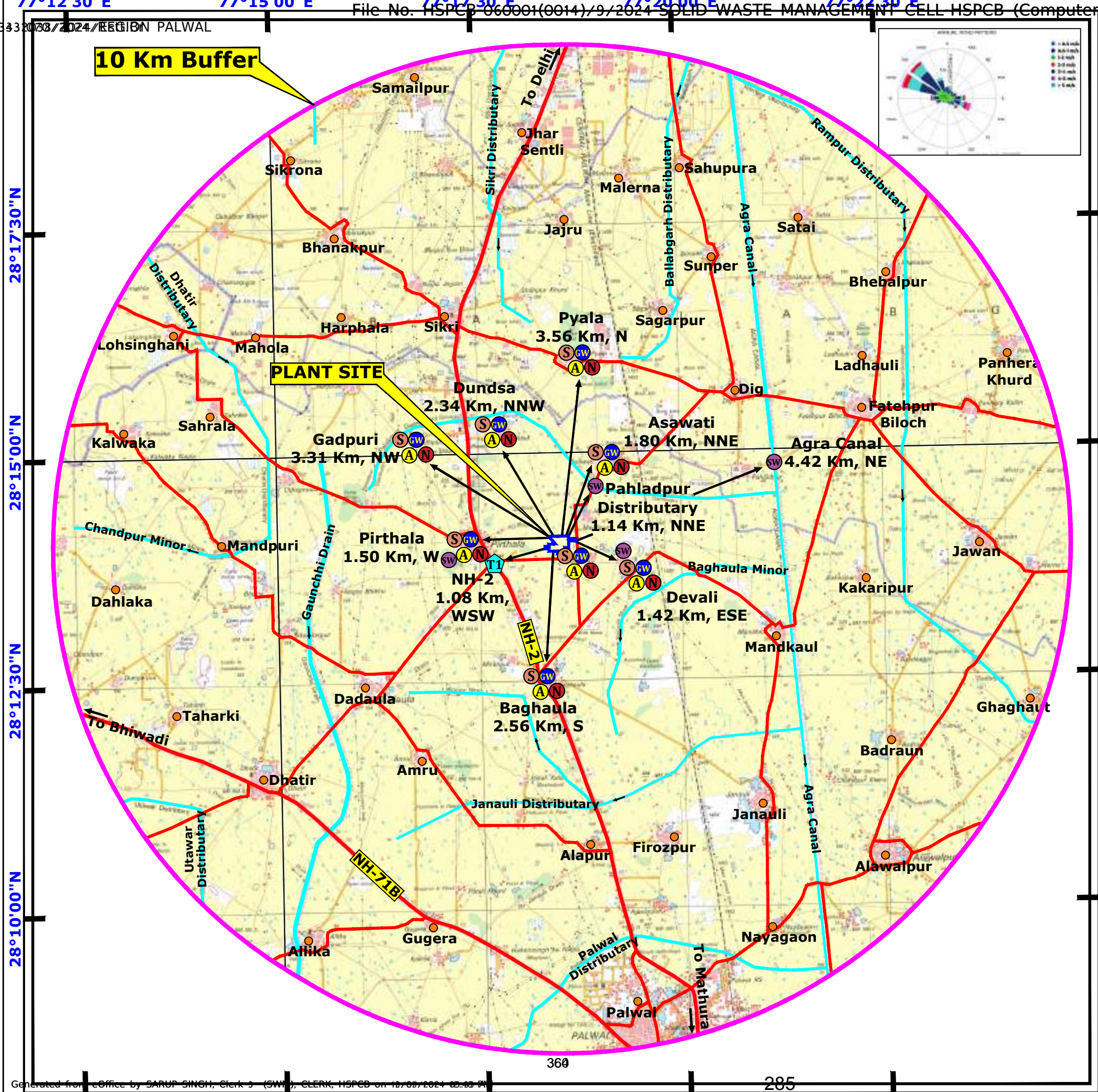
Name of Legal Entity: ALKOM SYNERGY PVT. LTD.

Signed for and on behalf of NABL



N. Venkateswaran  
Chief Executive Officer





**TOPOGRAPHICAL MAP SHOWING MONITORING STATION**

**LEGENDS:**

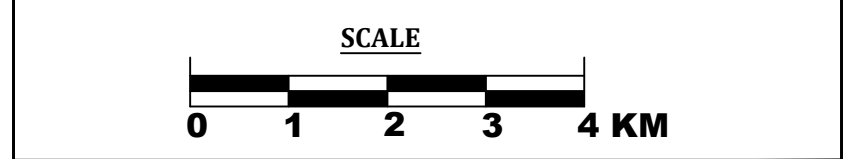
<b>Plant Site</b>	
<b>10 Km Buffer</b>	
<b>Major Road</b>	
<b>Waterbody</b>	
<b>Settlement</b>	
<b>Monitoring Stations</b>	
<b>Ambient Air Quality</b>	
<b>Ambient Noise Quality</b>	
<b>Ground Water Quality</b>	
<b>Soil Quality</b>	
<b>Traffic Survey Location</b>	
<b>Surface Water Quality</b>	

**SOURCE: SOI TOPOSHEET NO. 53 H/3, 4, 7 & 8**

**PROJECT:**  
 PROPOSED COLD ROLLING MILL COMPLEX HAVING CAPACITY 729,500 TPA  
 KILA NO. 4 TO 24, PRITHLA - TATARPUR ROAD, VILLAGE TATARPUR, PALWAL, HARYANA

**PROPONENT:**  
 JYOTI STRIPS PRIVATE LIMITED

**CONSULTANT:**  
 ENKAY ENVIRO SERVICES PVT. LTD.



**JYOTI STRIPS PRIVATE LIMITED****EHS POLICY**

We at Jyoti Strips Private Limited are committed to the protection of the Environment & provision of Safe working place by prevention of Pollution, Conservation of resources, Prevention of injuries and Ill Health situations.


This we shall achieve by:

- Understanding and meeting all legal & other obligations.
- Sustaining continual improvement in our EHS performance ensuring consultation and participation of all interested parties.
- Learning and implementing innovative techniques for eliminating hazards & reducing OH&S risks.

Place: Faridabad

Date:

Revision No: 00

  
General Manager-HR & Admin



# ज्योति स्ट्रिप्स प्राइवेट लिमिटेड

## पर्यावरण स्वास्थ्य सुरक्षा नीति

हम ज्योति स्ट्रिप्स प्राइवेट लिमिटेड में प्रदूषण की रोकथाम, संसाधनों के संरक्षण, चोटों और खराब स्वास्थ्य स्थितियों की रोकथाम के द्वारा पर्यावरण की सुरक्षा और सुरक्षित कार्यस्थल के प्रावधान के लिए प्रतिबद्ध हैं।

इस उद्देश्य की पूर्ती के लिए :

- सभी कानूनी एवं अन्य दायित्वों को समझना एवं अनुपालन करना।
- सभी इच्छुक पक्षों के परामर्श और भागीदारी को सुनिश्चित करते हुए हमारे ईएचएस प्रदर्शन में निरंतर सुधार करना।
- खतरों को खत्म करने और ओएच एंड एस जोखिमों को कम करने के लिए नवीन तकनीकों को सीखना और लागू करना।

स्थान: फ़रीदाबाद

दिनांक :

संशोधन क्रमांक: 00

महाप्रबंधक-मानव संसाधन एवं प्रशासन



JYOTI STRIPS PRIVATE LIMITED  
Works : Kila No. 4 to 24,  
Prithla Road, Village Tatarpur,  
Palwal 121102, Haryana, India  
Phone : 0128-4323850  
Email : md@jyotistrips.com

**Date: 10.10.2023**

**AUTHORITY LETTER**

In pursuant to the work order No. JSPL/100/2022-2023/2351 dated 18.01.2023 place Jaipur, I, Sanjay Batra, Chief executive head of Jyoti Strips Pvt. Ltd. do hereby authorize to M/s Enkay Enviro Services Pvt. Ltd. with its registered office at 92, Heera Nagar- A, Near Shalimar Bagh, Ajmer Road, Jaipur - 302021, for preparing the application for obtaining Terms of Reference (TOR) & Environmental Clearance (EC), and its related queries reply to SEAC, follow up to expedite our project on regular basis at SEAC and/or its Regional Office for all requisite regulatory approvals on behalf of our Company/Organization for our project "Proposed Cold Rolling Mill Complex with Galvanizing and colour coating line having total Capacity of Various products 7,80,000 MTPA" located at # Kila No. 4 to 24, Prithla - Tatarpur Road, Village Tatarpur, Palwal, Haryana."

Thanking you.

**For Jyoti Strips Pvt. Ltd.**

For Jyoti Strips Pvt. Ltd.  
  
Authorised Signatory

**Sanjay Batra**

**(Chief Executive Head)**



**JYOTI STRIPS PRIVATE LIMITED**

Corporate Office & Valika Mindscapes,  
Block-B, 3rd Floor, 12/3 Mathura Road,  
NH-2, Sector-27D, Faridabad,  
Haryana-121003  
Phone : 0129-4323650  
Email : md@jyotistrrips.com

**Jyoti Strips Private Limited**  
**List of Directors as on Date: 04-02-2023**

S. No.	Name	Father Name	Address	DIN	PAN
1	MR. NARESH KUMAR	SH. HARPRASAD	House No. 212, Sector-15A, Faridabad-121007, Haryana	00647504	AAWPK7999Q
2	MRS. SHALINI GARG	W/O Naresh Garg	House No. 212, Sector-15A, Faridabad-121007, Haryana	06424511	AAUPG7496E
3	MR. AMAN GARG	SH. Naresh Garg	House No. 212, Sector-15A, Faridabad-121007, Haryana	08052633	BPJPG3325K

**Jyoti Strips Private Limited**

**Shareholding Pattern**  
**As on Date: 04-02-2023**

S. No.	Name of Shareholder	Address	Pan No.	No. of Share	Share Holding
1	Mr. Naresh Kumar	House No. 212, Sector-15A, Faridabad-121007, Haryana	AAWPK7999Q	285000	57%
2	Mrs. Shalini Garg	House No. 212, Sector-15A, Faridabad-121007, Haryana	AAUPG7496E	65000	13%
3	M/s Ajit Sheets India Private Limited	Plot No. 50, Sector 59, Faridabad, Haryana	AAGCA2027E	150000	30%
	<b>Total</b>			<b>500000</b>	<b>100%</b>

For Jyoti Strips Pvt. Ltd.

  
Authorised Signatory

Plant : Plot No. 100-106, Sector-59, Huda Phase-II, Ballabgarh, Faridabad - 121004, Haryana, India  
Registered Office : 103 - B, Sindhu Farm Road, Mithapur Extension, Badarpur, New Delhi 110 044 India  
CIN : U51101DL2007PTC158112 Website : www.jyotistrrips.com







**JYOTI STRIPS PRIVATE LIMITED**

Corporate Office: Vatika Mindscapes,  
Block-B, 3rd Floor, 12/3 Mathura Road,  
NH-2, Sector-27D, Faridabad,  
Haryana-121003  
Phone : 0129-4323650  
Email : md@jyotistrrips.com

### Board Resolution

**CERTIFIED TRUE COPY OF THE RESOLUTION PASSED AT THE MEETING OF THE BOARD OF DIRECTORS OF JYOTI STRIPS PRIVATE LIMITED HELD ON 04.02.2023 AT ITS REGISTERED OFFICE 103-B, SINDHU FARM ROAD, MITHAPUR ROAD EXTENSION, BADARPUR, NEW DELHI-110044**

**RESOLVED THAT** the company has decided to authorize, Mr. Naresh Kumar, Director,(UID No: 976499838029) Mr. Aman Garg, Director,(UID No: 663817828728) Mr. Sanjay Batra Chief Executive Head,(UID No: 579931954417) and Mr. Ravinder Gupta Sr. Consultant,(UID No: 500316482864) of the company to authorized to sign the necessary applications, documents and papers to be submitted on behalf of the company with the Central and State Government Authorities related to MOEF & CC New Delhi, SEIAA, Haryana, The EAC and SEAC, Haryana State Pollution Control Board (HSPCB) & Central Ground Water Authority (CGWA), HVPNL Factor and Boiler department, HSIIDC and to present himself in relation to the project of establishing the Industrial Unit undertaken by the Company.

**RESOLVED FURTHER THAT** Mr. Naresh Kumar, Director, Mr. Aman Garg, Director, Mr. Sanjay Batra Chief Executive Head and Mr. Ravinder Gupta Sr. Consultant is also authorized to do all the other necessary acts, deeds or things for execution of aforesaid project work on behalf of the company.

**RESOLVED FURTHER THAT** Directors of the company are hereby, authorized to submit certified true copy of the resolution to concern authorities.

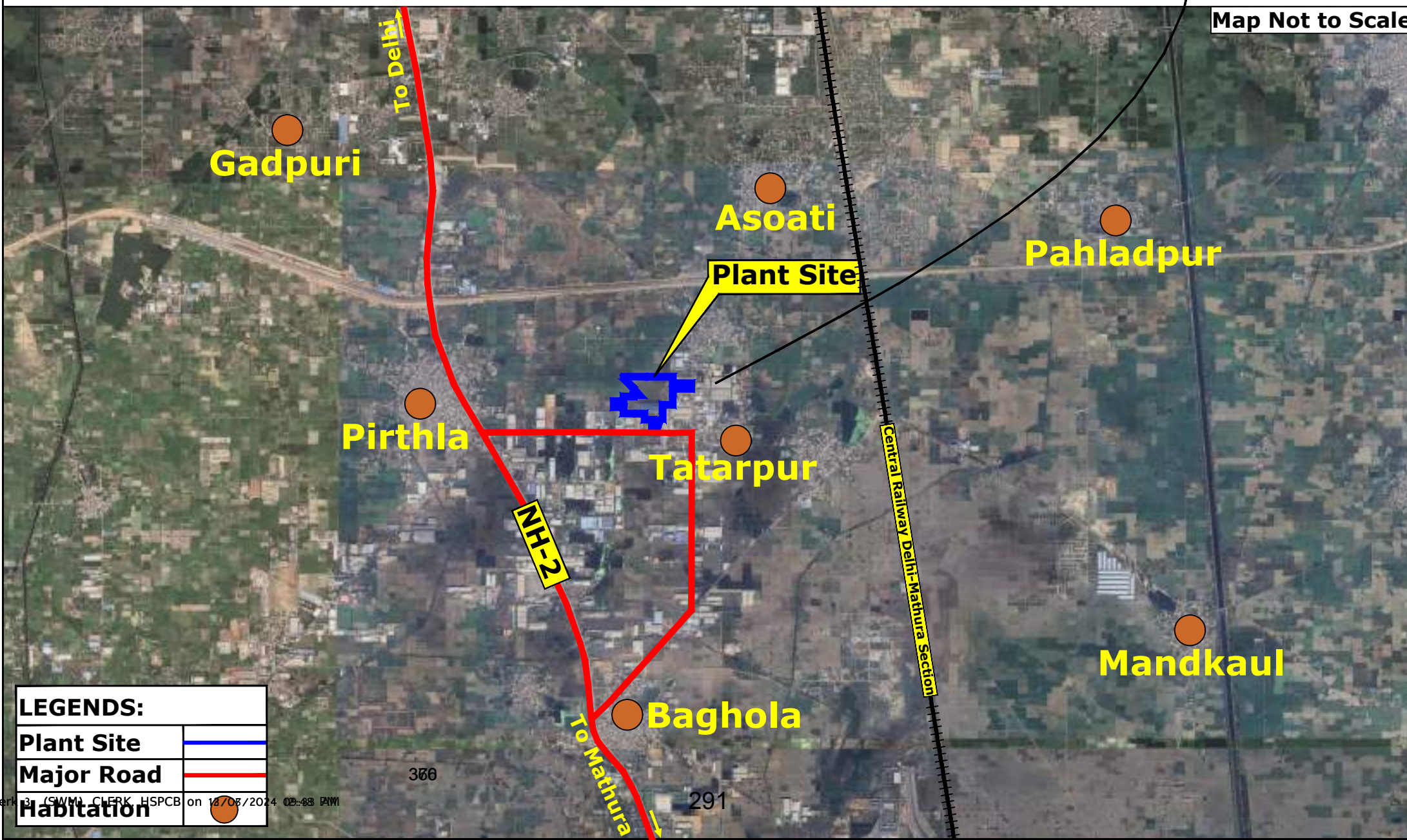
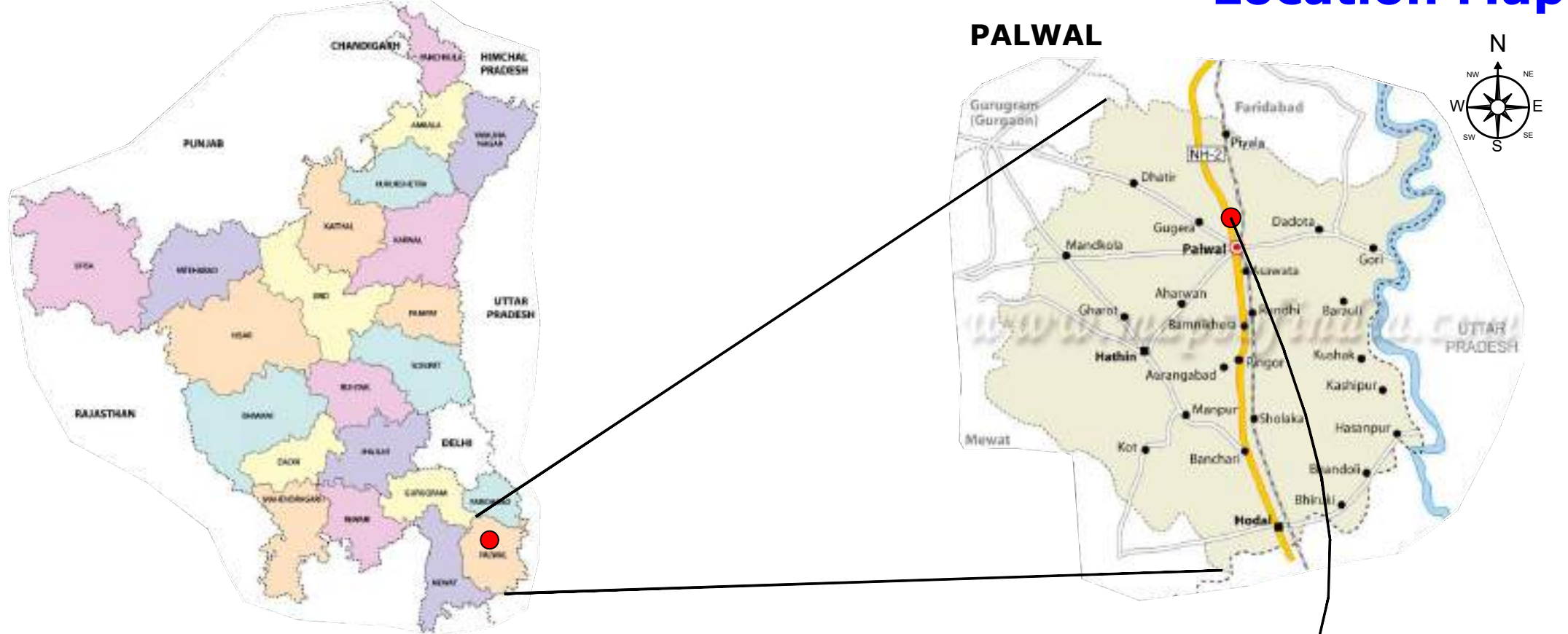
Certified True Copy

For Jyoti Strips Private Limited

Naresh Kumar

Director

Date: 04.02.2023



**LEGENDS:**

Plant Site	
Major Road	
Habitation	



National Accreditation Board for Education and Training



QCI/NABET/ENV/ACO/24/3164

March 06, 2024

**Enkay Enviro Services Pvt. Ltd., Jaipur**  
92, Heera Nagar-A, Near Shalimar Bagh,  
Ajmer Road, Jaipur – 302021

Sub.: Extension of Validity of Accreditation till June 04, 2024 – regarding  
Ref.. 1. Certificate no NABET/EIA/2023/SA 0200  
2. Request mail March 05, 2024

Dear Sir/Madam

This has reference to the accreditation of your organization under QCI-NABET EIA Scheme, the validity **Enkay Enviro Services Pvt. Ltd.** is hereby extended till June 04, 2024 or completion of the assessment process, whichever is earlier.

The above extension is subject to the submitted documents/required information with respect to your application and timely submission and closure of NC/Obs during the process of assessment.

You are requested not to use this letter after the expiry of the above-stated date.

With best regards.

(A K Jha)  
Sr. Director, NABET

REGD.

FORM BR-VII  
(See Code 4.11 (2), (4) and (5))  
Form of Occupation Certificate

From

Director,  
Town & Country Planning Department,  
Haryana, Nagar Yojna Bhawan, Block-A, Plot No.-3,  
Sector-18A, Madya Marg, Chandigarh.  
Tele-Fax: 0172-2548475; Tel.: 0172-2549851,  
E-mail: tcpharyana7@gmail.com  
Website www.tcpharyana.gov.in

To

Jyoti Strips Pvt. Ltd.,  
Regd. Off. 103-B, Sindhu Farm Road Mithabpur Extension,  
Badarpur Road, New Delhi-110044.

Memo No. PL-1443-B/AD (NK)/2021/ 14036 Dated 16-06-2021

Whereas Jyoti Strips Pvt. Ltd. has applied for the issue of an occupation certificate in respect of the building described below:-

DESCRIPTION OF BUILDING

District-Palwal.

Industrial Unit (Steel Strips) Purpose

- Total area of CLU permission area measuring 72389.39 Sqm. in the Revenue Estate of village Prithla & Jatola, Sector-11, Palwal.
- Indicating description of building, covered area, block, nature of building etc.

Building Block	Floor	FAR Sanctioned	FAR Achieved
		Area in Sqm.	Area in Sqm.
Shed-1	G. F	10390.65	10390.65
Eclectic Penal & Generator room	G. F	-	139.00
Toilet Block	G. F	16.52	16.75
Total FAR		10407.17	10546.40

I hereby grant permission for the occupation of the said buildings, after considering NOC from fire safety issued by Director General, Fire Services Haryana Panchkula bearing memo no. FS/2021/52 dated 20.05.2021 Structure Stability Certificate given by Ravati Raman Singh (Structure Engineer) and Public Health Internal Service functional reports received from S.E. (HQ), HSVP, Panchkula issued vide memo. No. 63447 dated 08.04.2021 and after charging the composition charges amounting to Rs. 1,21,666/- for the variations vis-à-vis approved building plans with following conditions:-

The building shall be used for the purposes for which the Occupation Certificate is being granted. Any violations of this condition shall render this Occupation Certificate null and void.

1. That you shall be fully responsible for supply of water as per norms.
2. That you shall obtain the connection for disposal of sewerage and drainage from HSVP after laying the services to the point of external services on payment of prescribed fee and charges including the cost of such connection. You shall also maintain the internal services to the satisfaction of the Director.

3. That you shall be solely responsible for disposal of sewerage and storm water of building till such times these services are made available by HSVP/State Government as per their scheme.
4. That in case some additional structures are required to be constructed as decided by HSVP at later stage, the same will be binding upon you.
5. That you shall maintain roof top rain water harvesting system properly and keep it operational all the time.
6. That the outer façade of the building shall not be used for purposes of advertisement and placement of hoardings.
7. That you shall neither erect nor allow the erection of any Communication and Transmission Tower on top of the buildings blocks.
8. That you shall use Light-Emitting Diode lamps (LED) for its campus as well as building.
9. That provision of parking shall be made within the site earmarked/designated for parking and no vehicle shall be allowed to park outside the premises of the site.
10. That you shall comply with all the conditions laid down in the memo no. FS/2021/52 dated 20.05.2021 of Director General, Fire Services Haryana Panchkula with regard to fire safety measures and you shall be fully responsible for fire safety measures.
11. That you shall submit the certificate from HAREDA with regard to solar plant capacity at site.

(K. Makrand Pandurang, IAS)  
Director, Town and Country Planning,  
Haryana, Chandigarh.

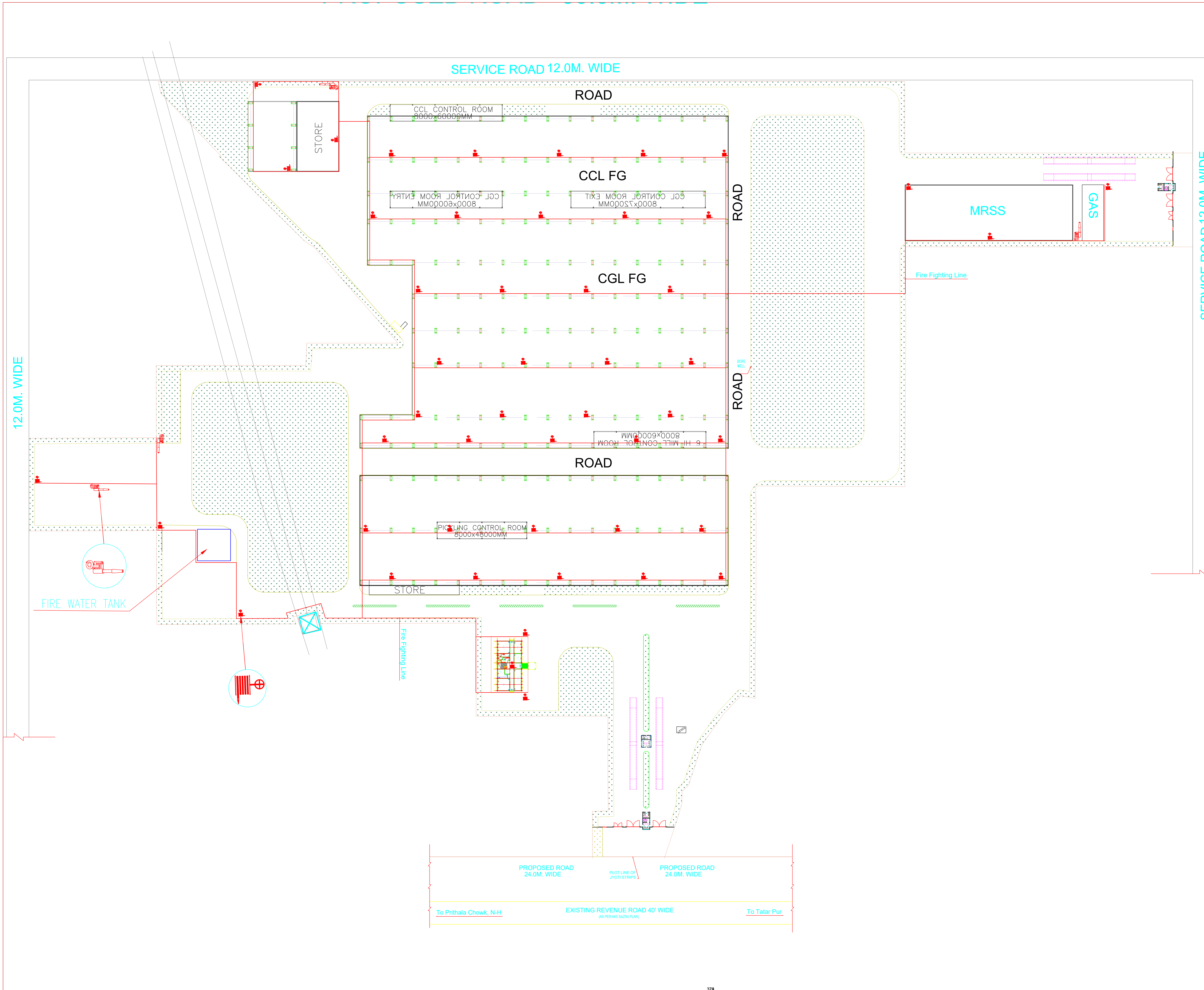
Endst. No: - PL-1443-B /AD (NK)/20210/\_\_\_\_\_ Dated \_\_\_\_\_

A copy is forwarded to the followings for information and necessary action please:

1. The Director General, Fire Services Haryana Panchkula w.r.t your office memo no. FS/2021/52 dated 20.05.2021 Director General, Fire Service, Haryana Panchkula.
2. Superintendent Engineer (HQ), HSVP, Panchkula w.r.t your office memo no. 63447 dated 08.04.2020
3. Senior Town Planner, Faridabad w.r.t your office memo no. 829 dated 02.04.2021.
4. District Town Planner, Palwal w.r.t your office endst no. 867 dated 31.03.2021.
5. Nodal Officer, Website Updation with a request to host the same on website of the Department.

(Sunena)

District Town Planner (HQ),  
For: - Director, Town and Country Planning,  
Haryana, Chandigarh.



**NOTES.**  
 G1. DO NOT SCALE ANY DIMENSIONS FOLLOW ONLY WRITTEN DIMENSIONS.  
 G2. ALL STRUCTURAL DRAWINGS SHOULD BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWINGS. ANY DISCREPANCY OR AMBIGUITY IN EITHER SHOULD BE BROUGHT TO THE NOTICE OF THE ARCHITECT

- LEGENDS:-**
- Fire Hydrant & Hose Reel Drum
  - WATER MONITOR

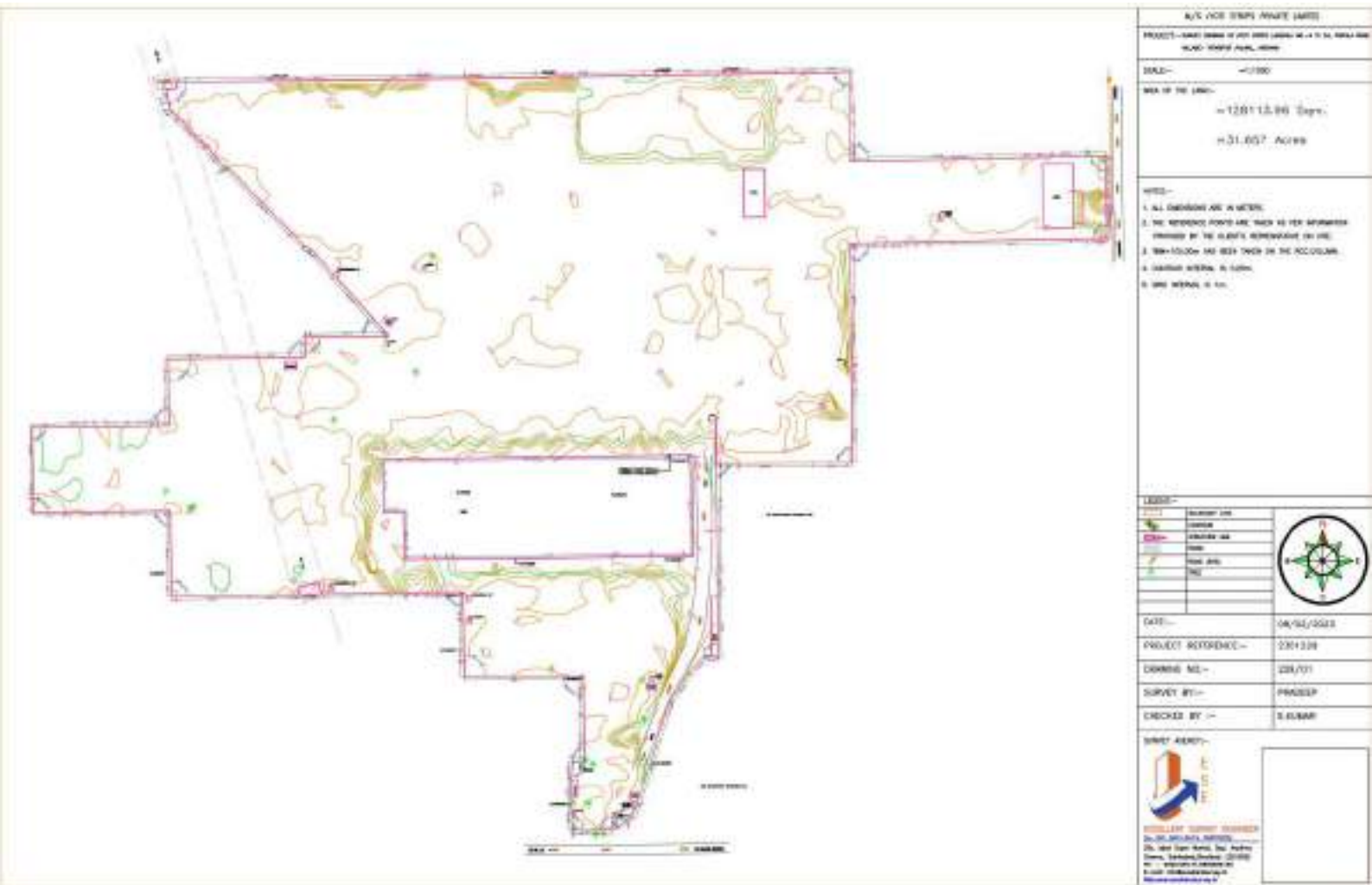
RO	DATE	CHANGE
30-01-2023		

**WATER FLOW CHART**

**JYOTI STRIPS**  
**JYOTI STRIPS PVT. LIMITED**  
 PLOT NO.- KILA NO.- 4 TO 24, TATARPUR,  
 PRITHLA TATARPUR ROAD, PALWAL, 121102

DRAWN	DIPANSHU BHATT	SCALE	
DESIGN		DATE	30-01-2023
CHECKED	KAMAL SINGH		
DRG. NO.	<b>FIRE PLAN-01</b>	REV. NO.	RO
	<b>SHEET-1 OF 1</b>		

**NOTE:-**  
 All rights reserved. This drawing contains proprietary information which is protected by copyright. No part of this drawing may be reproduced, translated in computer language, or transmitted in any form whatsoever without the prior written consent of M/s JYOTI STRIPS PVT. LIMITED.



### PHOTOGRAPHS OF PROJECT SITE

