SRMB Srijan Pvt. Limited

Executive Summary

For

Proposed Steel Plant

At

Village Ghutgoria, Barjora Plasto Steel Park, P.S. - Barjora,
District - Bankura, West Bengal

Envirotech East (P) Limited
An ISO 9001:2008, 14001:2004 & OHSAS:18001:2007

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EXECUTIVE SUMMARY

1.0 INTRODUCTION

M/s SRMB Srijan Ltd., having its registered office at 7, Khetra Das Lane, Kolkata-700 012 has been converted to M/s SRMB Srijan Pvt. Ltd.. The name change of the company however has come into effect from 01.04.2016. The company emerged as one of the major player in Iron & Steel Industry in West Bengal after successful implementation of their two Rolling Mills at Durgapur, West Bengal.

On the basis of recent demand of steel products, the company proposes to install Induction Furnaces of 4x20 Tonne capacity (with matching Ladle Refining Furnace and Continuous Billet Caster) along with hot Rolling Mill at Plot No. AB, AC & AB1, Barjora Plasto Steel Park, village: Ghutgaria, P.S. Barjora, District: Bankura in West Bengal. The proposed units with rated capacity per annum are presented in Table-1.1.

TABLE-1.1
PROPOSED UNITS

Unit	Capacity	Product
Induction Furnaces (4x20 T) (with matching LRF)	2,43,840 TPA	Liquid Steel
Continuous Casting Machine	2,40,000 TPA	Billets
Rolling Mill	2,00,000 TPA	TMT Bars - 8 mm to 32 mm

M/s Envirotech East Pvt. Ltd. have conducted an Environmental Impact Assessment (EIA) for the proposed project and formulated an appropriate Environmental Management Plan (EMP) for such project.

2.0 SITE LOCATION

The proposed project site is located at Plot No. AB, AC & AB1, Barjora Plasto Steel Park, village: Ghutgaria, P.S. Barjora, District: Bankura in West Bengal. Its geographical co-ordinates are Latitude 23°25'45.17"N and Longitude 87°15'20.82"E with mean sea level (MSL) of 83.21 m (273 ft). The nearest Railway Station Durgapur is

10.0 km from the project site. Nearest town Durgapur is about 11.2 km from the project site. Important Town like Bankura (District H.Q) is about 30.0 km from project site. River Damodar is passing approx. 6.0 km distance in north-east direction w.r.t the project site. National Highway-2 (NH-2), connecting Kolkata to Delhi is passing around 11.5 km from the project site. The nearest important Airport is Netaji Subhas Chandra Bose International (NSCBI) Airport, Kolkata, which is situated at about 150 km distance from the project site. The project site has good connectivity with sea port of Kolkata, Haldia, Paradip and Vishakhapatnam.

3.0 PROJECT HIGHLIGHTS

The principal features or highlights of the proposed project of M/s SRMB Srijan Pvt. LTD., under study are as follows:

Location	Plot No. AB, AC & AB1, Barjora Plasto Steel Park, village: Ghutgaria, P.S. Barjora, District: Bankura in West Bengal. Its geographical co-ordinates are Latitude 23°25'45.17"N and Longitude 87°15'20.82"E with mean sea level (MSL) of 83.21 m (273 ft).
Land requirement	The proposed units would be located on a piece of own vacant land measuring 7.96 Hectares (19.67 Acres), allotted by the West Bengal Industrial Development Corporation Ltd. (WBIDCL).
Raw water requirement & source	As per an initial estimate, water to the tune of 960 cu.m/day will be required for the proposed project. The make up water will be sourced from Barjora Gram Panchyat Samity & WBIDCL water supply system.
Power requirement	Requirement of power for the proposed project is around 45 MVA. The power required for the proposed plant will be sourced from DVC.
Effluent generation & disposal	The plant will be designed as a zero discharge plant. The water will be recirculated through cooling and treatment. The entire wastewater will be recycled for various purposes inside the plant. Domestic wastewater will be treated in Septic tank-Soak pit system.
Air pollution control	Adequate control measures like installation of bag filters, dust extraction/suppression system and stacks of adequate height at relevant points.
Solid Waste Management	➢ Induction Furnace slag will be used as land filling/road construction purpose. ➢ End cuts, scales and scraps from CCM will be used in the Induction Furnaces. ➢ End cuts and missed rolls from Rolling Mill will be used in the Induction Furnaces.

Manpower	458 persons
Project cost	Rs. 131.38 Crores

4.0 BASELINE ENVIRONMNETAL SCENARIO

The area falling within the radius of 10 km around the proposed Steel Plant at Barjora Plasto Steel Park, village: Ghutgaria, P.S. Barjora, District: Bankura in West Bengal has been considered as study area. On-site environmental quality monitoring was carried out from December, 2015 - February, 2016.

4.1 Meteorology

The monthly maximum and minimum temperatures recorded on-site during the aforesaid monitoring period (1st December, 2015 – 29th February, 2016) varied between (26.5-28.5)°C and (9.5-11.5)°C respectively with overall maximum and minimum temperatures being 28.5°C and 9.5°C respectively.

The monthly maximum and minimum relative humidity recorded on-site during the said monitoring period varied between (68.0-77.0)% and (44.0-50.0)% respectively, the overall maximum and minimum being 77.0% and 44.0% respectively.

The overall mean wind speed during the monitoring period was 2.1 Km/hr. The predominant wind direction was observed at North-west direction.

4.2 Ambient Air Quality

Ambient air quality was monitored at eight (8) locations in and around the project site.

The overall mean values of PM_{10}, $PM_{2.5}$, SO_2 and NO_2 in the area (mean of all the 8 locations) were 75.15 $\mu g/m^3$, 31.45 $\mu g/m^3$, 12.37 $\mu g/m^3$ and 23.74 $\mu g/m^3$ respectively.

4.3 Water Quality

Water samples were collected and analyzed at ten (10) locations to assess the surface water quality in the study area. Water samples were collected from eight (8) locations to assess the baseline status of the ground water quality of the study area.

The pH values of the collected two water samples from the river Damodar were found 6.89 and 6.92. Values of Dissolved Oxygen were observed (6.5 & 6.3) mg/lit. Total Dissolved Solids were found (172 & 182) mg/lit while values of total Hardness were found (122 & 127) mg/lit. Calcium & Magnesium were found (39 & 44) mg/lit and (6 & 4) mg/lit respectively. Oil and grease was below detection limit (<1.4 mg/lit) in these two samples. Sulphate, Nitrate and Chloride were observed (10 & 13) mg/lit, (1.6 & 2.0) mg/lit and (22 & 23) mg/lit respectively. Iron contents were found (0.15 & 0.19) mg/lit and zinc contents were found 0.12 mg/lit in both samples.

The pH values of the collected pond water samples were found in the range of (6.78-7.40). Dissolved Oxygen was observed in the ranges of (5.5-6.2) mg/lit. Total Dissolved Solids were found in the ranges of (185-362) mg/lit while Total Hardness was found in the ranges of (120-166) mg/lit. Calcium & Magnesium were found varying in the ranges of (38-53) mg/lit and (4-10) mg/lit respectively. Oil and grease was below detection limit (<1.4 mg/lit) in these samples. Sulphate, Nitrate and Chloride were observed varying in the ranges of (12 - 30) mg/lit, (1.4 – 2.7) mg/lit and (40 - 102) mg/lit respectively. Values of Iron and zinc contents were found in the ranges of (0.23 - 0.43) and (0.17 - 0.34) mg/lit respectively.

Conclusion can be drawn in the light of the overall analysis made so far that the surface water in the study area is free of any kind of industrial and urban pollution and has been found to be generally fit for human consumption.

4.4 Noise

A total of 10 locations around the proposed project were selected for the measurement of ambient noise levels.

During the day time, the equivalent noise levels were found to vary in the range of (56.7-66.2) dB(A) while in the night time, the equivalent noise levels were observed to be varying in the ranges of (47.7-57.4) dB(A).

4.5 Ecology

The study area is found to have a good vegetation cover due to helpful climatic conditions and good soil quality in the area. There are naturally growing plants, vegetation and grasses. The overall floral composition in the whole study area is quite rich.

4.6 Demography and Socio-economy

The study area comprises of 108 villages including Barjora town and Durgapur Municipal area. The study area is densely populated with the total population of 2,17,890 (as per 2011 Census). The sex ratio is about 937 females per 1000 males. The overall literacy rate is about 67.0%. Male literacy rate is 74.4% (w.r.t the male population) and female literacy rate is 59.1% (w.r.t the female population). The principal staple food is rice.

5.0 ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

5.1 Impacts on Air Quality

The Stack emissions from the proposed plant are mostly Sulpher dioxide (SO_2) and Particulate matters (PM). There will be continuous emissions from two stacks attached to 4x20 T Induction Furnaces.

As recommended by CPCB, GLCs at various receptor locations within 10 km radius have been computed for the three months' period (December,2015 - February,2016) representing the winter season, based on the hourly meteorological data of this period. The computation has been made applying Industrial Source Complex (ISC3) model, developed by United States Environmental Protection Agency (USEPA), which is most widely used and also recommended by CPCB (PROBES/70/1997-98).

The maximum incremental values of SO_2 & PM would be about 3.88 $\mu g/m^3$ & 1.05 $\mu g/m^3$ respectively, which will occur in ESE direction at a distance of 0.5 km w.r.t. the origin.

The predicted maximum GLCs of SO_2 & PM due to the operation of the proposed plant is well within the prescribed limits. Therefore, there will be insignificant impact on the Air Quality of the area due to the operation of the project.

5.2 Impacts on Water Quality

Company will follow "the zero wastewater discharge concept" and the entire wastewater will be recycled to the plant for various uses. As no wastewater will be discharged into any outside water body, there will

be no impact on the water quality of any surface water bodies of the area.

5.3 Impacts on Soil

There will be solid waste generation, but will be managed in the proper manner. This will ensure that there will not be any impact on soil quality due to the disposal or deposition of solid waste.

5.4 Impacts on Land Use

The proposed development will be confined within the boundary of the allocated land only, earmarked for the industrial purpose, so there will not be any significant impact on the land use pattern of the area.

5.5 Impacts on Biological Environment

The surrounding area has substantial vegetation in the form of village orchards, roadside trees and agriculture. There will be sufficient plantation of trees at the plant site. All these measures, if implemented properly will ensure insignificant impact on the local vegetation from the proposed project and may improve the vegetation scenario of the area.

No wastewater will be discharged outside the plant premises. There is, therefore, no impact on the aquatic ecology of the water bodies.

5.6 Impacts on Socio-Economic Environment

The project will offer substantial employment potential during construction phase and operation phase, which will have beneficial impact.

6.0 ENVIRONMENTAL MANAGEMENT PLAN

M/s SRMB Srijan Pvt. Limited, will develop various management activities for the Environmental Management Programme which will meet all statutory requirements and help to improve environmental quality.

In order to improve the aesthetic look of the area and enhance the land use as well as to compensate for any loss in ecology during construction, adequate plantation programmes around the project site have been planned and will be adopted. Development of green belt will include plantation of trees along boundary of the factory, roads, raw

material yard and other available spaces. 33% of total area of factory will be covered under green cover.

A detailed monitoring for different environmental parameters will be carried out as per direction of State Pollution Control Board. An environmental management group will be established to implement the management plan.