EXECUTIVE SUMMARY ENGLISH

For

Proposed Steel manufacturing unit namely "M/s SG Metals and Steels India Pvt. Ltd."

Located at

Village Shahpur, Khanna-Amloh Road, Tehsil Amloh,
Distt. Fatehgarh Sahib, Punjab

By

"M/s SG Metals and Steels India Pvt. Ltd."

Project schedule 3(a): Metallurgical Industries (ferrous & nonferrous)
Category: B1

Proposed production capacity: Billets @ 1,55,000 TPA or
Strips/Bars @ 1,50,000 TPA

(TOR Letter No. – SEIAA/MS/2021/4578 dated 23.07.2021)
(Baseline Monitoring Period: October - December, 2018 & May, 2021)

Submitted by

M/s Eco Laboratories & Consultants Pvt. Ltd.

Eco Bhawan, E-207, 204 & 205, Industrial Area, Phase VIII-B (Sector-74)
Mohali (Punjab) - 160071.
www.ecoparyavaran.org

(QCI NABET Accreditation No. - **NABET/EIA/1720/SA095** dated **01.10.2019**)

(In-house Lab., NABL Accreditation No. – **TC-7477** dated **22.06.2018)**

August, 2021

EXECUTIVE SUMMARY

1.0 PROJECT DESCRIPTION

M/s SG Metals and Steels India Pvt. Ltd. is a proposed Steel Manufacturing Unit located at Village Shahpur, Khanna-Amloh Road, Tehsil Amloh, Distt. Fatehgarh Sahib, Punjab. It is a subsidiary unit of M/s Shree Ganesh Edibles Pvt. Ltd. The proposed industrial unit will deal with the manufacturing of Billets @ 1,55,000 TPA or Strips/Bars @ 1,50,000 TPA using 3 Induction Furnaces of combined capacity 25 TPH (2 × 8.5 TPH & 1 × 8 TPH) & rolling mill. The project site falls in Industrial zone as per the Master plan of Mandi Gobindgarh, 2010-2031.

The total area of the project is 16,661.71 sq.m. (4.15 acres) which has been acquired on lease basis from M/s Shree Ganesh Edibles Pvt. Ltd.

As per EIA Notification, it is a Secondary Metallurgical processing industry under Schedule 3(a); Category B project which requires Environmental Clearance.

The salient features of the project will be as under:

- **Proposed production capacity:** Billets @ 1,55,000 TPA or Strips/Bars @ 1,50,000 TPA using 3 Induction Furnaces of combined capacity 25 TPH & rolling mill.
- **Total Area:** 16,661.71 sq.m. (4.15 acres)
- **Estimated Project cost:** Rs. 26.42 Crores.
- **Interlinked projects:** None

2.0 LOCATION & CONNECTIVITY

The project site is located at Village Shahpur, Khanna-Amloh Road, Tehsil Amloh, Distt. Fatehgarh Sahib, Punjab on internal village road which in turn connected to Khanna-Amloh road at a distance of approx. 0.4 km in 'W' direction. Project boundary coordinates are given below:

A: 30°39'17.13"N, 76°13'57.75"E

B: 30°39'17.09"N, 76°14'1.00"E

C: 30°39'17.62"N, 76°14'1.07"E

D: 30°39'17.56"N, 76°14'4.37"E

E: 30°39'25.36"N, 76°14'4.70"E

F: 30°39'25.37"N, 76°14'5.06"E

G: 30°39'15.06"N, 76°14'4.88"E

H: 30°39'15.17"N, 76°13'57.78"E

Project and its study area falls in the Survey of India, Toposheet No. **H43K2 & H43K6.** Toposheet marked location of the project is attached along as **Drawing 2**.

3.0 BRIEF FEATURES OF PROJECT

Table 1: Size/magnitude of the project

S. No.	Parameters	Description
1.	**Identification of the project**	Proposed steel manufacturing unit namely **"M/s SG Metals and Steels India Pvt. Ltd."** falls under Schedule 3(a) as per EIA Notification dated 14th September, 2006 and its subsequent amendments.
2.	**Project Proponent**	**Mr. Puneet Garg** (Director) **M/s SG Metals and Steels India Pvt. Ltd.** E-mail: sgmetalandsteels@gmail.com
3.	**Brief description of nature of the project**	M/s SG Metals and Steels India Pvt. Ltd. is a proposed Steel Manufacturing Unit. The industrial unit deal with the manufacturing of Billets @ 1,55,000 TPA or Strips/Bars @ 1,50,000 TPA with 3 Induction Furnaces of combined capacity 25 TPH & rolling mill.
4.	**Salient Features of the Project Proposed**	
4.1	**Overall plant capacity**	Billets @ 1,55,000 TPA or Strips/Bars @ 1,50,000 TPA
4.2	**Area Details**	The total area of the project is 16,661.71 sq.m. (4.15 acres)
4.3	**Location**	Project site boundary coordinates of all corners are given below: A: 30°39'17.13"N, 76°13'57.75"E B: 30°39'17.09"N, 76°14'1.00"E C: 30°39'17.62"N, 76°14'1.07"E D: 30°39'17.56"N, 76°14'4.37"E

<table>
<tr><td></td><td></td><td>E: 30°39'25.36"N, 76°14'4.70"E
F: 30°39'25.37"N, 76°14'5.06"E
G: 30°39'15.06"N, 76°14'4.88"E
H: 30°39'15.17"N, 76°13'57.78"E
Google Earth Image showing project site & its surroundings within 500 m are attached along as Drawing 3. Project site and its study area falls in the Survey of India, Toposheet No. H43K2 & H43K6. Toposheet showing project site is attached along as Drawing 2.</td></tr>
<tr><td>4.4</td><td>Water requirement</td><td>Source: Ground water
The total water requirement for the project is estimated to be 63 KLD. Out of which, fresh water demand will be 59.5 KLD. The breakup of the total water demand is given below:
<table>
<tr><th>Purpose</th><th>Total water demand after (KLD)</th></tr>
<tr><td>Make-up water demand for cooling purpose</td><td>40</td></tr>
<tr><td>Domestic water demand</td><td>4.5</td></tr>
<tr><td>Green area demand</td><td>18.5</td></tr>
</table>
Application will be filed to Punjab Water Regulation & Development Authority (PWRDA) for seeking permission regarding abstraction of ground water.</td></tr>
<tr><td>4.5</td><td>Wastewater</td><td>Approx. 3.6 KLD of domestic wastewater will be generated from the project which will be treated in proposed STP of capacity 5 KLD and treated water will be reused for cooling purpose.
No industrial effluent will be generated.</td></tr>
<tr><td>4.6</td><td>Man Power</td><td>Total manpower required for the proposed project is estimated at 100 (including Technical & Non-</td></tr>
</table>

		Technical).
4.7	**Power requirement**	Total power requirement will be 13,000 KVA (13 MVA) which will be supplied by captive power plant installed in M/s Shree Ganesh Edibles (P) Ltd.
4.8	**Alternative site**	No alternative site is considered as the project site falls in the industrial zone as per the master plan of Mandi Gobindgarh.
4.9	**Land form, Land use and Land ownership**	The project falls within Industrial Zone as per Master Plan of Mandi Gobindgarh, 2010-2031. Change in landuse has been obtained; copy of the same is enclosed as **Annexure 1(b)**.

4.0 METEOROLOGY

Meteorological data was obtained for a yearlong data from January to December, 2020 to cover the seasonality (seasonal pattern) and its impact on environment. The predominant winds are mainly flowing from West to North-West.

5.0 AIR QUALITY

The baseline air quality was established by monitoring of major air pollutants like Suspended Particulate Matter (≤ PM_{10} µm), Fine Particulate Matter (≤ $PM_{2.5}$ µm), Sulfur dioxide, Nitrogen dioxide and Carbon monoxide at various locations in the study area. Respirable dust samplers and fine particulate matter samplers were used for ambient air sampling. Samples were collected continuously from all the stations for 24 hours. Samples thus collected were analyzed for various pollutants. Baseline data for ambient air quality were collected within the study area of nearby project i.e. M/s Punjab Steel Forging & Agro Industries Ltd. during October to December 2018 and at project location in May, 2021.

PM_{10} concentration ranges from 71.1 – 95.1 µg/m^3 (avg. 82.1 µg/m^3) during October to December, 2018 in the study area and 81.0 – 95.7 µg/m^3 (avg. 88.7 µg/m^3) during May 2021 at project site of M/s SG Metals and Steels India Pvt. Ltd. This indicates the quality of ambient air in the study area is well within the 24 hours average permissible limits of 100 µg/m^3 (CPCB, 2009), hence the air quality of the area is good and safe for human health and environment.

$PM_{2.5}$ concentration ranges from 26.1 – 56.5 µg/m^3 (avg. 36.8 µg/m^3) during October to December, 2018 in the study area and 40.0 – 56.9 µg/m^3 (avg. 48.9 µg/m^3) during May 2021 at project location of M/s SG Metals and Steels India Pvt. Ltd. This indicates the quality of ambient air in the study area is well within the 24 hours average permissible limits of 60 µg/m^3 (CPCB, 2009), hence the air quality of the area is good and safe for human health and environment.

Mass levels of particulate dust (PM_{10} & $PM_{2.5}$), Gaseous pollutants (SO_2, NO_2, CO, Ozone & NH_3) were within the prescribed limits of CPCB (24 hours' average NAAQ standards). This indicates air quality in the study area is good, safe and comfortable to human health and environment.

Mass levels of particulate elements as Lead (Pb), Arsenic (As) and Nickel (Ni) and hydrocarbons as Benzene, Benzo(a)pyrene (BaP) were also reported as below detection levels which indicates safe environment with no health hazards.

6.0 NOISE QUALITY

The baseline noise quality data were collected by establishing monitoring network at 4 corners and center point of M/s SG Metals and Steels India Pvt. Ltd.

Noise levels varied from 62.6 dB(A) to 69.8 dB(A) during the day time and 50.4 dB(A) to 58.9 dB(A) during night time. The noise levels within prescribed limits indicate that the noise quality in the study area is safe and comfortable to human health and environment.

7.0 WATER QUALITY

The ground water samples have been collected from different sites at isolated places, the level of concentration and different elements vary quite considerably which may be due to small aquifers.

Analysis results of ground water reveal the following:

- pH value ranges from 7.20-7.80 at all locations
- Total dissolved solids (TDS) ranges from 350 to 490 mg/l against the BIS standard as acceptable limit 500 mg/l and permissible limit in absence of alternate source 2000 mg/l.
- Total alkalinity ranges from 240 mg/l to 285 mg/l against the BIS standard as acceptable limit 200 mg/l and permissible limit in absence of alternate source 600 mg/l.
- Total hardness ranges from 205 mg/l to 265 mg/l against the BIS standard as acceptable limit 200 mg/l and permissible limit in absence of alternate source 600 mg/l.

- Rest of other chemical parameters tested are well within prescribed limit of BIS.

All the above parameters at the various locations in the study area are within permissible and tolerable limits. In the study area, since the samples have been collected from different sites at isolated places, the level of concentration and different elements vary quite considerably which may be due to small aquifers. However, the levels of the various components are within acceptable/permissible norms for drinking water. The ground water test results indicate that water is good in quality and safe for drinking purpose after suitable treatment of hardness and alkalinity and fit for cooling water requirement.

As no effluent will be generated from the industry after the commissioning of the industry. Hence, surface water quality will not be affected due to the industry.

8.0 SOIL QUALITY

The baseline monitoring of soil quality was done by establishing monitoring network at various locations in the study area of M/s Punjab Steel Forging & Agro Industries Ltd. during October to December 2018 and at project location of M/s SG Metals and Steels India Pvt. Ltd. For studying the soil profile of the region, soil samples were collected from 8 locations in the study area of our nearby project M/s Punjab Steel Forging & Agro Industries Ltd. as well as from project location of M/s SG Metals and Steels India Pvt. Ltd. to assess the existing soil conditions within the study area representing various land uses. The observations show that in the study area soil are generally alkaline in nature and Sandy loam texture with medium class of fertility.

9.0 ECOLOGY

No plant or animal species were found as per the endangered list within 10 km radius of the project site. No ecologically sensitive area like biosphere reserve, tiger reserve, elephant reserve, migratory corridors of wild elephant, wetland, national park and wildlife sanctuary are present within 10 km distance of the project location.

10.0 ANTICIPATED ENVIRONMENTAL IMPACTS & MITIGATION MEASURES

10.1 AIR QUALITY

The major pollutants from the project will be particulate matter (PM) emissions and controlled using Side Suction Hood, Compartmentalized Pulse Jet Bag Filter with duct & ID fan will be restricted within 150 mg/Nm^3. The efficient Air Pollution Control Devices will enhance environment cleanness. Therefore, impact on the surrounding environment will be minimal.

10.2 NOISE QUALITY

The noise levels near the sources such as raw material handling yard, Induction Furnace etc. will be higher during the operation phase. The noise levels at source like Induction Furnace are anticipated to go upto 85 dB(A). However, the noise levels will attenuate to the background values beyond the plant boundary and the levels are not expected to rise beyond 55 dB(A) in the study area. The damage risk criteria as enforced by OSHA and CPCB to reduce hearing loss, stipulates the noise levels up to 85 dB(A) as acceptable limits for 8 hour working shift per day. In case of the operation of heavy machinery/ cranes for scrap handling and storage, noise levels may exceed the prescribed limits in certain work places like scrap yard, material loading/unloading and feeding to furnace.

10.3 WATER QUALITY

Domestic wastewater will be treated in the proposed STP of 5 KLD capacity to be installed within the project premises. No wastewater will be discharged outside the plant premises (under normal operating conditions). The storm water drain will be kept separate from wastewater drains. As no Industrial effluent is generated from the project hence the quality of the surface water will not be affected.

10.4 SOLID WASTE

10.4.1 DOMESTIC WASTE

Approximately, 20 kg/day of domestic waste will be generated, which will be properly collected and segregated into biodegradable and non-biodegradable waste. The solid waste will be disposed off as per Solid Waste Management Rules, 2016.

10.4.2 INDUSTRIAL WASTE

The quantity of slag is estimated to be 14.5 TPD. Out of this, 20% will be used for metal recovery and remaining 80% will be sold to tiles/block manufacturing unit for co-processing.

10.4.3 HAZARDOUS WASTE

Hazardous waste produced from the industrial unit is estimated to be 1.2 TPD of Exhaust air or Gas cleaning residue (APCD dust) under Category 35.1 of Schedule I. Authorization of hazardous waste will be obtained from PPCB. Agreement will be done with approved vendor for disposal of APCD dust.

11.0 GREENERY DEVELOPMENT

Green area will be developed on 20.22% of total project area. Further, additional land of 2.36 acres has been acquired for meeting the criteria of 33% green area and parking. Locally available types of trees which are resistant to pollutants will be planted. Tree plantation around the plant helps to arrest the effects of particulate matter and gaseous pollutants in the area besides playing a major role in environmental conservation efforts. The green belt would;

- Mitigate gaseous emissions
- Have sufficient capability to arrest accidental release
- Effective in wastewater reuse
- Maintain the ecological balance
- Control noise pollution to a considerable extent
- Prevent soil erosion
- Improve the Aesthetics

All the species suggested are pollution tolerant, besides having an aesthetic appeal.

12.0 ENVIRONMENTAL MONITORING PLAN

The environment monitoring plan enables environmental management system with early sign of need for additional action and modification of ongoing actions for environment management, improvement and conservation. The environmental monitoring points will be decided considering the environmental impacts likely to occur due to the operation of proposed project as the main scope of monitoring program is to track, timely and regularly, the change in environmental conditions and to take timely action for protection of environment Monitoring of environmental samples will be done as per the guidelines provided by MoEF&CC/CPCB. Separate records for water, wastewater, solid wastes, air emission, soil and manure/compost will be prepared and preserved regularly. Along with other budgets, Budget for environmental monitoring will be prepared and revised regularly as per requirement. The estimated yearly budget for Environmental Monitoring has been kept as Rs. 5 lakhs which include monitoring of efficiency of pollution control equipment, once in four months.

13.0 RISK MITIGATION MEASURES

Even with all precautions, disasters may take place. As such, an Emergency Plan will be formulated to take care of any disaster in the plant and surrounding areas. In order to prevent occurrence of any disaster, the plant will be provided with various safety and disaster control

facilities. In addition to these, numerous material handling systems, heavy road transport, high-tension electric lines, overhead cranes and various other handling and transport systems always have chances of accidents.

14.0 PUBLIC CONSULATION

Public hearing for Establishment of the unit will be conducted by Punjab Pollution Control Board (PPCB). The proceedings of the same will be incorporated in the final EIA report.

15.0 PROJECT BENEFITS

The project will overcome the demand and supply gap of steel product in the country. The establishment of the project will also generate revenue for the State Government. The steel availability will boost the infrastructure sector and overall economic scenario of the country. The project will create direct/indirect employment for people. Local people will be preferred for employment.

16.0 CORPORATE ENVIRONMENT RESPONSIBILITY (CER)

Apart from the various environmental protection measures, the project proponent is conscious of its social responsibility and as any good corporate citizen. Thus, the issues raised during public hearing will be undertaken as CER activities.

17.0 ENVIRONMENTAL MANAGEMENT PLAN

Environment Management Cell will implement the EMP of the project. All recommendations given in the EIA report including that of occupational health, risk mitigation and safety will be complied. Capital cost for the pollution control equipment for project is estimated to be Rs. 123 lakhs and recurring cost per year will be Rs. 10 lakhs. EMC will ensure that all air pollution control devices and water re-circulating systems function effectively. Schemes for resource conservation (raw materials, water etc.) and rainwater harvesting will be taken up by EMC. Greenbelt and greenery development inside and outside the plant premises will be intensified by the EMC. Guidelines issued by the Central Pollution Control Board (CPCB) on greenbelt development will be followed. Environmental awareness programs for the employees will be conducted. EMC will also ensure cleanliness inside the plant.

****