Executive Summary (English)

For

Steel Manufacturing Unit for increasing the production capacity to 1,89,400 TPA for manufacturing of MS Billets/ Concast Billets/ Flats/ HR Coil/ TMT Bars/ Pipes

Located at

Peer Gajju Shah Road, Village Alour, Tehsil Khanna, Distt. Ludhiana, Punjab

By

"M/s Shri Ambey Steel Industries

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

Category: B1

Production Capacity: Existing – 84 TPD

After Expansion – 1,89,400 TPA for manufacturing of MS Billets/ Concast Billets/ Flats/ HR Coil/ TMT Bars/ Pipes

(TOR Letter No. – Letter No. SEIAA/M.S./2020/3420 dated 5th November, 2020)

(Baseline Monitoring Period –23rd May, 2019 to 14th June, 2019)

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)**

February, 2021

EXECUTIVE SUMMARY

1.0 PROJECT DESCRIPTION

M/s Shri Ambey Steel Industries is an existing Steel Manufacturing Unit located at Peer Gajju Shah Road, Village Alour, Tehsil Khanna, District Ludhiana, Punjab. The existing industrial unit deals with the manufacturing of Steel Ingots and Castings / Concast Billets from IF of capacity 7 TPH @ 84 TPD or Round Squares / Bars / Flats / Angle and other rolled products with rolling mill @ 84 TPD. The industrial unit is located in the Industrial Zone as per the Master Plan of Khanna, 2010-2031.

Now, the industry wants to increase their production capacity with the addition of two no's Induction furnace of capacity 15 TPH each and pipe plant. Thus after expansion, the production capacity of the industrial unit will become 1,89,400 TPA for manufacturing MS Billets/ Concast Billets/ Flats/ HR Coils/ TMT Bars/ Pipes with 3 IF's, (out of which; 1 IF of capacity 7 TPH (existing) and 2 IF's of capacity 15 TPH each), rolling mill (existing) & pipe plant.

The salient features of the project are as under:

- Existing production capacity: 84 TPD of Round Squares / Bars / Flats / Angle
- Total production capacity after expansion: 1,89,400 TPA MS Billets/ Concast Billets/ Flats/ HR Coils/ TMT Bars/ Pipes
- Total Area: 24,591.07 sq.m
- Estimated Project cost: Total after expansion Rs. 34.1 Crores (approx.)
- Interlinked projects: None.

2.0 LOCATION & CONNECTIVITY

Project is located at Peer Gajju Shah Road, Village Alour, Tehsil Khanna, District Ludhiana, Punjab. The existing industrial unit is located on internal village road which in turn is connected to NH-1. Khanna Railway Station is located at a distance of approx. 5 km in 'NW' direction. Ludhiana Airport, Sahnewal is located at a distance of approx. 35 km in 'NW' direction. Total area of the project is 24,591.07 sq.m.

Project boundary coordinates of corners are as follows:

A:30°40'43.06"N & 76°15'44.20"E
B: 30°40'44.31"N & 76°15'43.02"E
C: 30°40'46.68"N & 76°15'43.47"E
D: 30°40'46.85"N & 76°15'42.35"E
E: 30°40'47.35"N & 76°15'42.42"E
F: 30°40'47.50"N & 76°15'40.55"E
G: 30°40'48.83"N & 76°15'40.61"E
H: 30°40'49.21"N & 76°15'35.14"E
I: 30°40'46.27"N & 76°15'34.91"E
J: 30°40'45.96"N & 76°15'38.38"E
K: 30°40'44.99"N & 76°15'38.26"E
L: 30°40'44.98"N & 76°15'39.63"E
M: 30°40'44.37"N & 76°15'39.60"E
N: 30°40'44.10"N & 76°15'42.77"E
O: 30°40'42.85"N & 76°15'43.89"E

The project and study area falls in the Survey of India Toposheet No. **H43K6** & **H43K2**.

3.0 BRIEF FEATURES OF PROJECT

Table 1: Size/magnitude of operation of the project

S. No.	Parameters	Description
1.	**Name of the project**	Steel manufacturing unit "M/s Shri Ambey Steel Industries" for increasing the production capacity to 1,89,400 TPA falls under Schedule 3(a) as per EIA Notification dated 14th September, 2006 and its subsequent amendments.
2.	**Project Proponent**	Sh. Puneet Jaidka Partner, M/s Shri Ambey Steel Industries Email: shriambeysteelindustries@gmail.com
3.	**Detail of Furnaces**	Existing Induction Furnace: 7 TPH and rolling mill Proposed Induction Furnaces: 2 Induction furnaces of 15 TPH each and pipe plant. After expansion: **3 Induction Furnaces (1 IF of 7 TPH capacity and 2 IF's of 15 TPH each), rolling mill & pipe plant.**
4.	**Salient Features of the Project**	
4.1	**Plant capacity**	Existing capacity : 84TPD of Steel Ingots and

<table>
<tr><td></td><td></td><td>Castings / Concast Billets
Total After Expansion : 1,89,400 TPA of MS Billets/ Concast Billets/ Flats/ HR Coil/ TMT Bars/ Pipes</td></tr>
<tr><td>4.2</td><td>Total Plot Area</td><td>24,591.07 sq.m; Expansion of the project is within the plant premises.</td></tr>
<tr><td>4.3</td><td>Location</td><td>Project boundary coordinates of corners are as follows:
A:30°40'43.06"N & 76°15'44.20"E
B: 30°40'44.31"N & 76°15'43.02"E
C: 30°40'46.68"N & 76°15'43.47"E
D: 30°40'46.85"N & 76°15'42.35"E
E: 30°40'47.35"N & 76°15'42.42"E
F: 30°40'47.50"N & 76°15'40.55"E
G: 30°40'48.83"N & 76°15'40.61"E
H: 30°40'49.21"N & 76°15'35.14"E
I: 30°40'46.27"N & 76°15'34.91"E
J: 30°40'45.96"N & 76°15'38.38"E
K: 30°40'44.99"N & 76°15'38.26"E
L: 30°40'44.98"N & 76°15'39.63"E
M: 30°40'44.37"N & 76°15'39.60"E
N: 30°40'44.10"N & 76°15'42.77"E
O: 30°40'42.85"N & 76°15'43.89"E
The project and study area falls in the Survey of India, Toposheet No. H43K6 & H43K2.</td></tr>
<tr><td>4.4</td><td>Water requirement</td><td>Source: Ground water.
Total consumption of water after expansion will be 108 KLD. The break-up of the same is given below:
<table>
<tr><th>Details</th><th>Existing Water Demand (KLD)</th><th>Water Demand After Expansion (KLD)</th></tr>
<tr><td>Cooling Water Demand</td><td>14</td><td>58</td></tr>
<tr><td>Domestic Water Demand</td><td>4</td><td>5</td></tr>
<tr><td>Green area water demand</td><td>-</td><td>45</td></tr>
<tr><td>Total</td><td>18</td><td>108</td></tr>
</table></td></tr>
<tr><td>4.5</td><td>Wastewater</td><td>Approximately, 3 KLD of domestic wastewater is being generated from the existing unit which is</td></tr>
</table>

		treated in the septic tank provided within the project premises. However, after expansion 4 KLD of domestic wastewater will be generated which will be treated in proposed STP of 5 KLD to be provided within the project premises. Also, no industrial effluent is generated from the existing industrial unit and even, after expansion also no industrial effluent will be generated.
4.6	**Man Power**	**Existing** Manpower including both technical & non-technical: 70 persons **Total manpower after expansion** will become: 110 persons (both technical & non-technical).
4.7	**Power requirement**	**Existing Power Demand:** 6,500 KW which is being supplied by Punjab State Power Corporation Limited (PSPCL). **Additional Power Demand:** Total Power Requirement after expansion is: 15,000 KW which will be supplied by Punjab State Power Corporation Limited (PSPCL).
4.8	**Alternative site**	No need of alternate site.
4.9	**Land form, Land use and Land ownership**	The plot area of the plant is 24,591.07 sq.m.
5.0	**Conclusion**	M/s Shri Ambey Steel Industries wants to increase the capacity of their existing industrial unit by adding two no's IF's of capacity 15 TPH each and pipe plant. Thus, after expansion, the production capacity of the industrial unit will become 1,89,400 TPA for manufacturing of MS Billets/ Concast Billets/ Flats/ HR Coils/ TMT Bars/ Pipes with 3 IF's i.e.; 1 IF of capacity 7 TPH and 2 IF's of capacity 15 TPH each, rolling mill & pipe plant.

4.0 METEOROLOGY

The predominant winds are mainly flowing from North-West, with the secondary wind direction being from the South East.

5.0 AIR QUALITY

The $PM_{2.5}$, PM_{10}, $SO_2$and NO_2 levels (Critical Pollutants) as well as NH_3 and O_3 were monitored at eight locations in the study area of Taksus Steel Pvt. Ltd. which is located at a distance of 3.9 km from project location. Further, additional monitoring was carried out at project location from 23 May to 14 June,2019. Sites of the monitoring stations were kept keeping in view of the dominant wind direction. PM_{10} concentration observed in the study area during March – May, 2018 is minimum i.e. 50.4 µg/m^3 at Lalheri and maximum i.e. 228.9 µg/m^3 at Harbanspura. The $PM_{2.5}$ levels concentration at different monitoring stations. It was minimum i.e. 28.7 µg/m^3 at Lalheri and maximum of 130.5 µg/m^3 at Harbanspura. At project location, average $PM_{2.5}$ level is 49.75 µg/m^3. The SO_2 levels at various monitoring stations ranged from 6.9 to 13.9 µg/m^3 NOx concentration in the study area varied from 13.7 to 31.1 µg/m^3.The results when compared with National Ambient Air Quality Standards (NAAQS) of Central Pollution Control Board (CPCB) for "Industrial/ Residential/ Rural and Other Areas", it was observed that except PM_{10} & $PM_{2.5}$ all the values of SO_2, NO_2, CO and PAH were within prescribed limits.

6.0 NOISE QUALITY

Ambient noise levels were measured within the project location and 8 locations in the study area of Taksus Steel Pvt. Ltd. outside the project. Noise levels varied from 52.6 dB(A) and 68.3 dB(A) during the day time and were 42.1 dB(A) and 57.2 dB(A) during the night time in the study area. The maximum ambient noise levels within the project site during day time is 58.8 dB(A) and 54.1 dB(A) during night time. The obtained noise levels are well within prescribed limits for industrial area whereas marginally higher to prescribed limits for residential areas indicating annoying environment for population and sensitive receptors.

7.0 WATER QUALITY

It has been seen from the results that:

1. pH varies from 7.21 -7.52 which is the acceptable limits for potable water.
2. Calcium varies from 44.0 to 56.0 mg/l. The highest value was observed at Salana and Sirhind City

3. Magnesium varies from 17 to 25 mg/l.
4. Chloride concentration which is also one of the important parameters varies from 47 to 66 mg/l.
5. Heavy metals like Cadmium, Chromium, Lead and Zinc were much below the permissible limit in all the samples.
6. Iron varies from 0.32- 0.51 mg/l.
7. Sulphates vary from 60 to 95 mg/l.

8.0 SOIL QUALITY

Soil samples were collected from the nine locations including the project location and were analyzed. The results showed that soil are generally alkaline in nature & is sandy loam.

9.0 ECOLOGY

No plant or animal species were found to be on the endangered list within 10 km radius of the project location. 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.
Amloh Bir protected forest is located at a distance of 9 km from the project location.

10.0 ANTICIPATED ENVIRONMENTAL IMPACT & MITIGATION MEASURES

10.1 AIR QUALITY

The major pollutants from the project after expansion will be particulate matter (PM) emissions and will be controlled by using side suction hood and pulse jet bag filter and the outlet emission 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

Unloading and hauling operations and movement of vehicles will be properly scheduled to minimize noise pollution during expansion phase. The air compressors, rotating machines,

pumps, ID fans, mill operations will be the major sources of noise. All activities will be carried out inside sheds and maintenance program for equipment will be routinely followed. The land will be developed with greenbelt, which will further reduce the noise level. Workers working in noisy areas will be given ear plugs. In this manner, the noise levels are restricted within the plant boundary to meet the industrial area standards of 75 dB (A) during day time and 70 dB(A) during night time.

10.3 WATER QUALITY

Domestic wastewater will be treated in the STP of 5 KLD capacity. No wastewater will be discharged outside the plant premises (under normal operating conditions). The storm water drain will be kept separate from wastewater drains.

10.4 SOLID WASTE

10.4.1 DOMESTIC WASTE

Approximately, 14 kg/day of domestic solid waste is being generated from the existing project & after expansion approx. 22 kg/day of domestic waste will be generated, which will be properly collected and segregated into biodegradable and non-biodegradable waste. The solid waste is being disposed off as per MSW (Management & Handling) Rules, 2016.

10.4.2 INDUSTRIAL WASTE

3 TPD of slag is being generated from existing industrial unit and after expansion; it is estimated that 20% of metal will be recovered and remaining 80% i.e. 14.4 TPD and will be given to cement/block manufacturing plant for co-processing.

10.4.3 HAZARDOUS WASTE

Hazardous waste produced from the existing unit is 0.02 KL/annum of spent oil and 35 TPA (or 0.1 TPD) of APCD dust under Schedule I. Authorization of hazardous waste have been obtained from PPCB. After expansion, hazardous waste produced from the industrial unit is estimated to be 0.2 KL/annum of spent oil under Category 5.1 and 1.5 TPD of APCD dust under Category 35.1 under Schedule I. Agreement has been done with M/s Madhav Alloys

Pvt. Ltd. for disposal of APCD dust. Agreement has been done with BRS Lubricants for disposal of used oil.

11.0 GREENERY DEVELOPMENT

Adequate green area will be provided inside the plant premises. Locally available types of trees which are resistant to pollutants have been and will also 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 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/PPCB. Separate records for water, wastewater, air & stack emission will be maintained regularly. Along with other budgets, Budget for environmental management will be prepared and revised regularly as per requirement.

13.0 RISK MITIGATION MEASURES

Even with all precautions, disasters may take place. As such, an Emergency Plan has been formulated to take care of any disaster in the plant and surrounding areas. In order to prevent occurrence of any disaster, the plant is provided with various safety and disaster control facilities. Normally, in the plant, no major disaster affecting nearby population areas are foreseen. However, accidents inside the plant affecting workplace in vicinity cannot be ruled out. 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 PROJECT BENEFITS

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

15.0 CORPORATE ENVIRONMENT RESPONSIBILITY

The project proponent may set out to do the following CER activities by giving importance to their corporate philosophy in order to achieve the objective to improve the quality of life and socio-economic scenario with special attention to the people residing in the study area. Rs. 13 Lakhs will be spent on following CER activities will be undertaken by the proponent:

- Adoption of Government Middle School located in the village Alour, Khanna for maintenance of school building and provide the necessary facilities.

16.0 ENVIRONMENTAL MANAGEMENT PLAN

Environment Management Department will implement the EMP of this project. All recommendations given in the EIA report including that of occupational health, risk mitigation and safety will be complied. The capital cost required implementing the pollution control systems and EMP is Rs. 125 Lakhs. The annual recurring expenses will be approx. Rs.12 Lakhs/annum. EMD 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 EMD. Greenbelt and greenery development inside and outside the plant premises will be intensified by the EMD. Guidelines issued by the Central Pollution Control Board (CPCB) on greenbelt development will be followed. Environmental awareness programs for the employees will be conducted. EMD will also ensure cleanliness inside the plant.

****