

Executive Summary

For

Proposed Steel Manufacturing Unit

Located at

G.T. Road, Doraha, Tehsil Payal. District Ludhiana, Punjab

by

“M/s Dang Special Steels Pvt. Ltd.”

Project schedule 3(a): Metallurgical Industries (ferrous & non-ferrous)

Category: B1

Production Capacity

Proposed: @ 365 TPD (1,27,750 TPA) of Billets/Ingots or Rolled Products (Round Alloys/ Wire rods/ Flats/ TMT bars etc.)

(TOR Letter No. – SEIAA/MS/2023/29 dated 9th January, 2023)

(Baseline Monitoring Period – March to May, 2021)

(Addition One Month Monitoring at Project Site – 15th October to 15th November, 2022)

Submitted by



M/s. Eco Paryavaran Laboratories & Consultants Pvt. Ltd.

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(QCI NABET Accreditation No. - NABET/EIA/2223/SA 0183 dated 09.01.2023)

(In-house Lab, NABL Accreditation No. – TC-7477 dated 28.04.2022)

UID No. EL/2022/08/02/D/Rev. 01

February, 2023

EXECUTIVE SUMMARY

1.0 PROJECT DESCRIPTION

M/s Dang Special Steels Pvt. Ltd. is a proposed Steel Manufacturing Unit located at G.T Road, Doraha, Tehsil Payal, District Ludhiana, Punjab. The total area of the project is 17,620 sq.m. (4.35 acres).

The proposed industrial unit will deal with the manufacturing of Billets/Ingots or Rolled Products (Round Alloys/ Wire rods/ Flats/ TMT bars etc.) @ 365 TPD (1,27,750 TPA) with two Induction Furnaces of capacity 12 TPH each and one Rolling Mill.

The industrial unit is located in the Industrial Zone as per the Master Plan of Ludhiana. 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:** @ 365 TPD (1,27,750 TPA) of Billets/Ingots or Rolled Products (Round Alloys/ Wire rods/ Flats/ TMT bars etc.) by Induction Furnaces of capacity 12 TPH each along with rolling mill.
- **Total Area:** 17,620 (4.35 acres).
- **Estimated Project cost:** Rs. 39.60 Crores.
- **Interlinked projects:** None

2.0 LOCATION & CONNECTIVITY

Project is located at G.T Road, Doraha, Tehsil Payal, District Ludhiana, Punjab. Doraha Railway Station is located at a distance of 2.4 km in 'E' direction. Ludhiana Airport, Sahnewal is located at a distance of 7.2 km in 'NW' direction. Project location falls within Industrial zone as per Master plan of Ludhiana. The project boundary coordinates of all corners are as follow:

Corners	Latitude	Longitude
A	30°48'26.42"N	76° 1'4.22"E
B	30°48'27.83"N	76° 1'2.13"E
C	30°48'33.59"N	76° 1'7.27"E
D	30°48'31.13"N	76° 1'10.78"E
E	30°48'30.23"N	76° 1'10.03"E
F	30°48'31.23"N	76° 1'8.61"E

Project site and its 10 km study area falls in the Survey of India, Toposheet No. **H43K1, H43K2, H43J13 & H43J14.**

3.0 BRIEF FEATURES OF PROJECT

Table 1: Size/magnitude of project

S. No.	Parameters	Description
1.	Identification of the project	Proposed steel manufacturing unit namely “ M/s Dang Special Steels Pvt. Ltd. ” for manufacturing of Billets/Ingots or Rolled Products (Round Alloys/ Wire rods/ Flats/ TMT bars etc.) @ 365 TPD (1,27,750 TPA) with two Induction Furnaces of capacity 12 TPH each and one Rolling Mill which falls under Schedule 3(a) as per EIA Notification dated 14 th September, 2006 and its subsequent amendments.
2.	Project Proponent	Mr. Baljeet Singh (Director) M/s Dang Special Steels Pvt. Ltd. E-mail: dangspecialsteels@gmail.com
3.	Brief description of nature of the project	M/s Dang Special Steels Pvt. Ltd. is a proposed Steel Manufacturing Unit with production capacity of 365 TPD (1,27,750 TPA) for manufacturing of Billets/Ingots or Rolled Products (Round Alloys/ Wire rods/ Flats/ TMT bars etc.) with two Induction Furnaces of capacity 12 TPH each and one Rolling Mill.
4.	Salient Features of the Project Proposed	
4.1	Overall plant capacity	Overall production capacity of the unit will be 365 TPD (1,27,750 TPA) of Billets/Ingots or Rolled products (Round Alloys/ Wire rods/ Flats/ TMT bars etc.)
4.2	Area Details	The total area of the project is 17,620 sq.m. (4.35 acres)
4.3	Location	Project boundary coordinates of all corners are as follows: A: 30°48'26.42"N & 76° 1'4.22"E B: 30°48'27.83"N & 76° 1'2.13"E C: 30°48'33.59"N & 76° 1'7.27"E D: 30°48'31.13"N & 76° 1'10.78"E E: 30°48'30.23"N & 76° 1'10.03"E



		F: 30°48'31.23"N & 76° 1'8.61"E Project location and its study area falls in the Survey of India, Toposheet No. H43K1, H43K2, H43J13 & H43J14.												
4.4	Water requirement	<p>Source: Ground water</p> <p>Total water requirement for the project is estimated to be 60.5 KLD. Out of which, fresh water demand will be 57.5 KLD.</p> <p>The break-up of the same is given below:</p> <table border="1"> <thead> <tr> <th>Purpose</th> <th>Total water demand (KLD)</th> </tr> </thead> <tbody> <tr> <td>Make-up water demand for cooling</td> <td>24</td> </tr> <tr> <td>Domestic water demand</td> <td>4.5</td> </tr> <tr> <td>Green area water demand</td> <td></td> </tr> <tr> <td> <ul style="list-style-type: none"> • Summer • Winter • Monsoon </td> <td> <ul style="list-style-type: none"> • 32 • 10.5 • 2.9 </td> </tr> <tr> <td>Total Water Demand</td> <td>60.5</td> </tr> </tbody> </table> <p>Permission will be obtained from PWRDA regarding abstraction of ground water.</p>	Purpose	Total water demand (KLD)	Make-up water demand for cooling	24	Domestic water demand	4.5	Green area water demand		<ul style="list-style-type: none"> • Summer • Winter • Monsoon 	<ul style="list-style-type: none"> • 32 • 10.5 • 2.9 	Total Water Demand	60.5
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4.5	Wastewater	Approx. 3.5 KLD of domestic wastewater will be generated from the unit which will be treated in proposed STP of 5 KLD. Treated Water will be reused for horticulture purpose within the project premises. Further, no industrial effluent will be generated.												
4.6	Man Power	Total 100 workers will be required (including Technical & Non-Technical). No worker will be residing within project premises.												
4.7	Power requirement	Total power requirement of the project will be 15,000 KVA which will be supplied by PSPCL. 2 DG sets of capacity 500 KVA and 200 KVA has been proposed for power backup.												
4.8	Alternative site	No alternative site is considered as the project location falls within the Industrial Zone as per the Master plan of Ludhiana.												
4.9	Land form, Land use and Land	Total area of the project is 17,620 sq.m. (4.35 acres). Project location falls within Industrial Zone as per Master Plan of Ludhiana. Land documents (Registry) are submitted with report.												

	ownership	
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4.0 METEOROLOGY

Meteorological data was obtained for a yearlong data from January to December, 2022 to cover the seasonality (seasonal pattern) and its impact on environment. The wind rose diagram shows the predominant winds are mainly flowing from North West. Calm conditions are observed for 2.3 % of the total time.

5.0 AIR QUALITY

The baseline data of ambient air quality monitoring considered for March to May, 2021 of M/s Allied Recycling Ltd. (Unit II) and additional one-month study conducted at project site from 15th October to 15th November, 2022. The PM_{2.5}, PM₁₀, SO₂ and NO₂ levels (Critical Pollutants) as well as NH₃ and O₃ were monitored at 9 locations including project and its 10 km study area. Monitoring stations were keeping in view of the dominant wind direction.

PM₁₀ concentration in the study area ranges between 63 µg/m³ to 127 µg/m³ with average value monitored at project site is found to be 152.37 µg/m³. This indicates values of PM₁₀ in project area as well as study area against 24 hours' average is more than the permissible limit of 100 µg/m³ for PM₁₀ which is due to presence of industries in Ludhiana, Mandi Gobindgarh and other agro and biomass burning activities as predominant in the region.

PM_{2.5} concentration ranges between 32 µg/m³ to 72 µg/m³ in the study area with average value monitored at project location is found to be 92.25 µg/m³. This indicates values of PM_{2.5} in project area as well as study area against 24 hours' average is more than the permissible limit of 60 µg/m³ for PM_{2.5} which is due to presence of industries in Ludhiana, Mandi Gobindgarh and other agro and biomass burning activities as predominant in the region.

Mass levels of Gaseous pollutants (SO₂, NO₂, CO, Ozone & NH₃) 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

Ambient noise levels were measured at 5 locations within the project premises (M/s Dang Special Steels Pvt. Ltd.). Noise levels varied from 61.6 dB(A) to 63.3 dB(A) during the day



time and were 50.5 dB(A) and 51.8 dB(A) during night time in the study area. The obtained noise level is well within prescribed limits for industrial area whereas marginally higher to prescribed limits for residential areas indicating annoying environment for population and sensitive receptors. Noisy environmental conditions are mainly associated to industrial activities in Khanna and Mandi Gobindgarh industrial hubs, heavy traffic movement on road network and other agro and domestic activities in the region.

7.0 WATER QUALITY

The ground water test results indicate that water is good in quality and safe for drinking purpose and fit for cooling water requirement. In the study area, 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.

No industrial effluent will be generated from the unit. Hence, surface water quality will not be affected due to the proposed project.

8.0 SOIL QUALITY

The observations show that in the study area soil are generally neutral in nature and Sandy clay texture with medium class of fertility and at project site soil are also neutral but of Sandy Loam texture.

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 will be controlled using Side Suction Hood, Compartmentalized Pulse Jet Bag Filter will be restricted. The efficient Air Pollution Control Devices will enhance environment cleanness. Therefore, impact on the surrounding environment will be minimal.

10.2 NOISE QUALITY

The raw material handling yard, Induction Furnaces, etc. are the major sources of noise during operation phase of the project. All the workers engaged at and around high noise generating sources are being provided with ear protection devices like ear mufflers/ plugs. They will be regularly subjected to medical check-up for detecting any adverse impact on the ears. The green belt will also help to prevent noise generated within the plant from spreading beyond the plant boundary. Workplace ambient level is not expected to be beyond 75 dB(A) during day time and 70 dB(A) during night time.

10.3 WATER QUALITY

Domestic wastewater will be treated in proposed STP of capacity 5 KLD within project premises. No wastewater will be discharged outside the plant premises (under normal operating conditions).

Storm water drains will be kept separate from wastewater drains. No Industrial effluent will be generated from the industrial unit. Hence, surface water quality will not be affected due to proposed unit.

10.4 SOLID WASTE

10.4.1 DOMESTIC WASTE

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

10.4.2 INDUSTRIAL WASTE

Approximately, 11.5 TPD of slag will be generated from the unit. Out of which 20% will be reused for metal recovery within the project premises & remaining 80% will be given to M/s Shree Radhey Tile Industries.

10.4.3 HAZARDOUS WASTE

Hazardous waste generated from the unit is estimated to be 0.5 KL/annum of used oil under Category 5.1 and 1 TPD of APCD dust under Category 35.1 of Schedule I. Agreement will be done with authorized vendor for the disposal of APCD dust and used oil.

The waste shall be managed as per Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016 & its amendments.

11.0 GREENERY DEVELOPMENT

Unit has proposed 5,816.40 sq.m. of land for green area which is 33.02% of the total area. 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 unit 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.

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 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 additional revenue for the State Government. The steel availability will boost the infrastructure sector and overall economic scenario of the country. The project establishment will create additional direct/indirect employment for people. Local people will be preferred for employment.

15.0 CORPORATE ENVIRONMENT RESPONSIBILITY (CER)

Mr. Baljeet Singh (Director) will be responsible for implementation of the CER activities. Thus, under CER rejuvenation of pond will be done. Further, issues raised during public hearing will be taken up as CER. Following activity has been proposed under CER:

Table 2: CER activities

S. No.	Activity	Total Expenditure
1.	<u>Rain Water Harvesting</u> Adoption of pond located at Village Jaipura having area of approx. 1 acre for rainwater harvesting and maintenance of pond as per measures given below: i. Nano-Bubble technology to treat wastewater discharge into the pond ii. Tree plantation of 6 ft. size around the pond iii. Removal of solid waste, sludge, silt from the pond iv. Landscaping around the pond	Rs. 10 lakhs

16.0 ENVIRONMENTAL MANAGEMENT PLAN

Environment Management Department 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. 148 lakhs and recurring cost per year will be Rs. 15 lakhs. 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.

Proposed Steel Manufacturing Unit

Client: *M/s Dang Special Steels Pvt. Ltd.*

Location: *G.T Road, Doraha, Tehsil Payal, District Ludhiana, Punjab.*

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Environmental awareness programs for the employees will be conducted. EMD will also ensure cleanliness inside the plant.

