SUMMARY OF ENVIRONMENTAL IMPACT ASSESSMENT REPORT FOR PUBLIC HEARING

Expansion in SMS Unit to increase the production of MS Billets from 2,07,360 TPA to 5,52,960 TPA by installation of 4x25 tonnes & 2x12 tonnes IF, 30 tonnes LRF & 4 strand of 6/11m CCM with existing 4 X12 tonnes IF & 2 strand of 4/7m CCM and Bar & Rod Mill from 2,07,360 TPA to 7,30,000 TPA by installation of 30 TPH RHF with existing 30 TPH RHF for production of TMT bar/Wire Plant/Epoxy unit and Cold Rolled Products

Located At

Vill. Debipur, PO Kalyaneshwari, Dist. Paschim Bardhman, West Bengal

Project Proponent:-
M/s Captain Steel India Limited
10A, Shakespeare Court,
21A, Shakespeare Sarani, Kolkata

DECEMBER-2023

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1.0 PROJECT DESCRIPTION

M/s Captain Steel India Limited., has proposed Expansion in SMS Unit to increase the production of MS Billets from 2,07,360 TPA to 5,52,960 TPA by installation of 4x25 tonnes & 2x12 tonnes IF, 30 tonnes LRF & 4 strand of 6/11m CCM with existing 4 X12 tonnes IF & 2 strand of 4/7m CCM and Bar & Rod Mill from 2,07,360 TPA to 7,30,000 TPA by installation of 30 TPH RHF with existing 30 TPH RHF for production of TMT bar/Wire Plant/Epoxy unit and Cold Rolled Products.

The project site is located in Village – Debipur, P.O.-Kalyaneshwari, District – Paschim Bardhman, West Bengal. West Bengal- Jharkhand interstate boundary is at 0.8 km from project site in west direction. Project has very good infrastructural facility in terms of road connectivity as NH 19 connecting Kolkata – Delhi at a distance of 1.35 km in south direction. GT Road is at 5.4 km in south direction. Jamtara Chitranjan road is at 5.5 km in ESE direction and SH-5 is at 5.5 km in SE direction. The nearest railway station is Salanpur Railway station in SE direction at a distance of 4.5 km & nearest airport is Kazi Nazural Islam airport at a distance of 45 km in SE direction from project site. Neematpur Town is at 7.5 km in NNW direction. Barakar River is at 0.85 km in west direction. Maithon reservoir is at 1.5 km in WNW direction. Khudiya River is 8.5 km in SW direction. Hill Colony lake is at 9.9 km in NE direction. There is no River/Canal/Port in the plant area. There is no village or human settlement in the project area. The climate in the area is dry with extreme temperature variation. No National Park/sanctuary falls within 5 km of the plant area.

Application was submitted to MOEF&CC for obtaining Terms of References (TOR) for conducting the EIA studies. Accordingly, the project proponents have submitted prescribed application along with Pre-Feasibility Report to the MOEF&CC, New Delhi on dated 20.12.2022 vide proposal No:- IA/WB/IND1/410012/2022 for seeking terms of references for conducting the EIA Study. Standard ToR has been granted by MoEF&CC for the project on 24.08.2023 vide File No. J-11011/192/2013-IA-II(IND-I).

The project activity is listed at Sl. no. 3(a), Secondary Metallurgical Industry, under Category-"B", as per the EIA Notification, 2006 but due to the applicability of General Condition (Interstate boundary within 5 km), the project was treated as Category "A" project while granting TOR and will be appraised at central level.

Project Promoters:

M/s Captain Steel India Limited (formerly known as M/s BMA Stainless Limited), hereinafter known as the Project Proponent, is a private limited company in the business of production of MS Billets and Rolled products. The Company Directors have long experience in mineral mining and metal trade. The company has been promoted by a Group of experience businessmen who are presently engaged in manufacturing and trading of various products.

The project will be managed by Directors Mr. Vijay Gupta, Mr. Avinash Agarwalla, Mr. Palghat Krishnan Venkatramani, Mr. Kalpana Vishwas Kundu and Mr. Ramesh Kumar Jhunjhunwala. They will be associated with their experienced and knowledgeable employees for the respective areas of operation.

The details of Board of Directors of the company are given below :-

Table Error! No text of specified style in document. **Director's Details**

S. No	Name	Age	Qualification	Experience
1	Mr. Vijay Gupta	44	B.com	21 years
2	Mr. Avinash Agarwalla	44	MBA, B.com	21 years
3	Mr. Palghat Krishnan Venkatramani	71	Part-I CAIIB, B.Sc with honors in Chemistry	42 years
4	Mr. Kalpana Biswas Kundu	70	B.A. (Hons) in Economics, M.A. (Economics)	39 years
5	Mr. Ramesh Kumar Jhunjhunwala	52	B.com	29 years

Total land for the existing plant is 6.92 ha. For installation of new facilities, additional 6.72 ha land is required making the total project area 13.64 ha.

Existing daily fresh water requirement is 212 KLD. After expansion total daily fresh water requirement will be 539.5 which will be sourced from Maithon Resevoir.

Existing Power requirement is 30 MW which will increase to 95 MW after expansion. Power is sourced from DVC Power supply and same will be followed after expansion.

Currently, Greenbelt covers 2.32 ha land which is 33.52% of existing area. 2.2 ha land will be added to the greenbelt making the total greenbelt area 4.52 ha. At present, total no. of existing trees is 5820. 5500 more trees will be planted after proposed expansion. Density of trees will be 2500 trees/ha as per the MoEFC&CC norms.

2.0 DESCRIPTION OF BASELINE ENVIRONMENT

Baseline environmental study has been carried for the period 1st March, 2023 to 31st May, 2023 (Pre Monsoon Season). Baseline data has been collected out, by M/s. GRC India Training & Analytical Laboratory, Noida. Accredited by NABL also Recognized by MoEF&CC, New Delhi

Summary of Ambient Air Quality

- Results were compared with the standard for ambient air quality monitoring as per the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- During the study PM_{10} was observed in the range of 63.6 to 93.9 µg/m^3. Maximum concentration of PM_{10} was found at Ikra village near Shivam Dhatu.
- $PM_{2.5}$ was observed in the range of 33.8 to 53.7 µg/m^3. Maximum concentration of $PM_{2.5}$ was found at Ikra village near Shivam Dhatu.
- SO_2 concentration was observed in the range of 8.3 to 14.7 µg/m^3, which is well within the standard limit.
- NO_2 concentration in was observed in the range of 12.8 to 40.4 µg/m^3, which is well within the standard limit.
- Monitoring and analysis was also carried out for CO. Result for the CO was found well within the norms and was observed in the range of 510 to 2170 µg/m^3, which is well within the standard limit.

Summary of Noise Levels

The noise levels around the study area are ranging between 45.4 to 73.5 dB (A) during study period. Whereas the night equivalents were in the range of 38.8 to 66.4 dB (A).

Summary of Ground Water Quality

- pH was observed in the range of 7.53 to 7.93 which meets with desirable norms.
- Total dissolved solid was recorded in the range of 445 to 570 mg/l with minimum at borewell water near site and maximum at borewell water at Durgapur Village.
- Total hardness was in the range of 193-223 mg/l with minimum at borewell water near site & maximum at borewell water at Maheshpur Village.
- Total Alkalinity was found in the range of 178-216 mg/l with minimum at borewell water at Barkar Village & maximum at borewell water at Debipur Village.
- Iron was found in the range of 0.21-0.36 mg/l with minimum at borewell water near site and maximum at borewell water near Debipur Village.
- As microbiological parameters MPN analysis was also carried out and it was found Nil.

Summary of Surface Water Quality

The following description is based on the analysis of the samples:

- During the analysis pH of the samples was found in the range of 7.09 to 8.2.
- TDS analysis was also carried out for surface water sample and it was found in the range of 176 to 490 mg/l.

- DO measured during analysis was found in the range of 5.6 to 6.5 mg/l.
- COD measured during analysis was found in the range of 10.2 to 15 mg/l.
- BOD measured during analysis was found in the range of 2.6 to 3.8 mg/l.
- COD & BOD analysis was also carried out during the study period and it was found more than desirable value for drinking water.
- MPN test was also carried out for this surface water sample and it was found positive. It indicates towards the fecal contamination in surface water body.

Summary of Soil Quality

Soil is the media for supplying the nutrients for plant growth. Nutrients are available to plants at certain pH and pH of soils can reflect by addition of pollutants in it either by air, or by water or by solid waste or by all of these. In order to establish the baseline status of soil characteristics, soil samples were collected from 05 sampling locations. The analysis results show that soil is basic in nature as pH value ranges from 6.93 to 7.17. Iron ranges from 2.7 to 3.8 mg/kg, Bulk Density is 1.32 to 1.37 gm/cc, Water Holding Capacity is 26.8 to 33.8%, Total Nitrogen (as N) is 150.48 to 197.28 kg/ha, Total Phosphorus (as P2O5) is 11.29 to 18.19 kg/ha and Available Potassium (as K) kg/ha is 210.83 to 240.12 kg/ha. Soil texture is sandy loam at project site.

There are 46 identified settlements in the study area of which 45 are villages and one town.

According to survey conducted Population the rural area of the study area has a total population of 410922 and that of urban area is 191087 of which 52 percent are male and the remaining 48 percent are female. Again, of the total population 68.2 percent live in rural area and the remaining 31.8 percent live in urban area.

No schedule-I species is reported in study area. There is No national park and wild life sanctuary or any animal corridor is present in the study area.

3.0 ANTICIPATED ENVIRONMENTAL IMPACT & MITIGATION MEASURES

- Raw material Dust is the main pollutant generated during ore handling.
- Water sprinklers will be used to reduce dust generation during coal handling.
- Wet dust suppression system will be installed to reduce the dust generation.
- All belt conveyors will be covered. Internal roads shall be concreted.
- Industrial vacuum cleaners will be used in workshops and other work areas.
- Mechanical road sweeping machines will be deployed for daily cleaning of all internal roads.

- There will be no industrial wastewater discharge as the plant will be designed on zero effluent discharge principle.
- Domestic waste water will be treated in STP and treated water will be used for irrigation purpose.
- Zero effluent discharge will be practiced.
- 100% of waste water will be recycled and Zero discharge condition will be maintained.
- Low noise emitting plant and machinery will be selected. 33% land area will be developed as greenbelt. The noise level at plant boundary will be maintained below 70 dBA.
- The existing truck movement pattern will not undergo any significant change. Appropriate traffic management plan will be implemented in consultation with the transport authorities.

4.0 ENVIRONMENTAL MONITORING PROGRAM

Environmental Management Cell (EMC) has been made to undertake routine environmental monitoring. Monitoring will be done to ensure compliance with the prescribed laws and standards. The Head of EMC reports to the Plant Head. Qualified staff will be recruited in EMC. Environmental monitoring of ambient air, stack emission, fugitive dust emission, noise levels, groundwater quality, surface water quality and soils are carried out as per norms. EMC is responsible for the following functions:-

Regular monitoring of:-

- Measuring fugitive emissions, measuring $PM_{2.5}$ and PM_{10} in work environment and report any abnormalities for initiating corrective and preventive actions.
- Measuring the ambient air quality at upwind and downwind direction of crusher, at plant boundary.
- Checking the wastewater quality (inlet and outlet).
- Checking the ground water quality near the project area, and surrounding villages.
- Water quality of water body present in study area at upstream and downstream of site.
- Noise monitoring at plant boundary, nearest habitation, near highway, and work areas.
- Development and maintenance of greenbelt and greenery within the plant boundary.

5.0 ADDITIONAL STUDIES

Adequate fire mitigation measures will be ensured for handling fire in project area in care of emergency. Disaster Management Plan has been prepared to take care of public health and safety during any accident.

CER will be done as per CER norms. Generally, the CER amount use to spent for making classrooms in local schools, providing teaching aids, making community centres, develop drinking water facility in nearby villages, making rainwater harvesting structures like anicuts and check dams in the area, developing infrastructure facilities and equipment in primary health centres.

As per MoEF&CC Office Memorandum vide F.No.22-65/2017-IA.III dated. 30th September 2020, Rs. 2.00 Cr allocated for CER budget.

6.0 PROJECT BENEFITS

The proposed project is expected to yield a positive impact on the socio-economic environment within the study area. It helps to sustain the development of this area including further development of physical infrastructural facilities.

About 200-300 people on daily wages basis will get employment during the construction stage. The existing manpower of the project is 240 persons and additional 300 persons will be required for the expansion. Hence the total manpower after expansion will be 540. The preference will be given to local population for employment in the semi-skilled and unskilled category; this will increase the employment opportunity in the surrounding area. More revenue will be generated by the way of GST to the State & Central exchequers.

7.0 ENVIRONMENTAL MANAGEMENT PLAN

Environmental Management Plan for effective management of environmental impacts and ensuring overall protection of the environment through appropriate management procedures has been developed. In order to implement the recommended mitigation measures and institutionalize the EMP, budgetary provision of Rs. 27 Cr capital expenditure has been made and Recurring annual expenditure will be Rs 2.25 Cr.

Environment Management Cell (EMC) will ensure that all air pollution control device, effluent treatment plants and water re-circulating systems function effectively. EMC will also supervise disposal of spent oil and lubricants and used batteries to the authorized vendors. Plantation will be started during the construction phase by following the guidelines issued by the Central Pollution Control Board. Schemes for resource

conservation (raw materials, water, etc), rainwater harvesting and social forestry development will be taken up by EMC. Regular environmental awareness programs for the employees will be conducted.

Workers will be periodically subjected to health check-up. EMC will ensure cleanliness and industrial hygiene in the plant. EMC in association with the safety department will undertake full review of the potential hazard scenarios during plant commissioning. The review will ensure enforcement of the proposed safeguards for pollution abatement, resource conservation, accident prevention and waste minimization. The implementation of EMP would ensure that all elements of project comply with relevant environmental legislation throughout its life cycle.

PREPARED BY:

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