# EXECUTIVE SUMMARY

## 1.0 PROJECT DESCRIPTION

M/s K.S Alloys is an existing Steel Manufacturing Unit located at Village Kumbh, Amloh Road, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab. The total area of the project is 15,934.36 sq.m (3.9375 acres).

Currently, the existing industrial unit is involved in the production of Steel Ingots/Billets/Rolled products (Round, Square, Flats and Angles) @ 84 TPD or ERW Pipes @ 80 TPD with one Induction Furnace of capacity 7 TPH along with Rolling Mill & Pipe Plant.

Now, the project proponent wants to increase their production capacity by replacing existing Induction Furnace of capacity 7 TPH to 12 TPH along with addition of one new Induction Furnace of capacity 15 TPH. However, existing Rolling Mill & Pipe Plant will remain same.

Thus after expansion, the total production capacity of the industrial unit will be @ 410 TPD (1,43,500 TPA) of Steel Ingots/ Billets/ Rolled products (Round, Square, Flats and Angles)/ ERW Pipes with two Induction Furnaces (1 × 12 TPH & 1 × 15 TPH) along with Rolling Mill & Pipe Plant within same plot area.

The industrial unit is located in the Industrial Zone as per the Master Plan of Mandi Gobindgarh 2010-2031. 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:

- **Existing production capacity:** @ 84 TPD of Steel Ingots/Billets/Rolled products (Round, Square, Flats and Angles) or ERW Pipes @ 80 TPD with one Induction Furnace of capacity 7 TPH along with Rolling Mill & Pipe Plant
- **Total production capacity after expansion**: 410 TPD (1,43,500 TPA) of Steel Ingots/ Billets/ Rolled products (Round, Square, Flats and Angles)/ ERW Pipes with two Induction Furnaces (1 × 12 TPH & 1 × 15 TPH) along with Rolling Mill & Pipe Plant
- **Total Area after expansion:** 15,934.36 sq.m (3.9375 acres).
- **Project cost after expansion:** Existing cost of project is Rs. 16.17 Crores and proposed cost of expansion is estimated to be Rs. 6.05 Crores. Thus, total cost of the project after expansion becomes 22.22 Crores.
- **Interlinked projects:** None

- **Envisaged Changes:** By replacing the existing Induction Furnace from 7 TPH to 12 TPH along with addition of one new Induction Furnace of capacity 15 TPH.

## 2.0 LOCATION & CONNECTIVITY

Project is located at Village Kumbh, Amloh Road, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab. Project lies on the internal village road, which in turn connected to NH-44 (NH-1) at a distance of 2.9 km in the "NE" direction. The nearest Railway station is Mandi Gobindgarh Railway Station, located at a distance of approx. 4.2 km in 'N' direction. Ludhiana Airport, Sahnewal is located at a distance of approx. 39 km in 'NW' direction. Project boundary coordinates of all corners are as follows:

| Corner | Latitude | Longitude |
|---|---|---|
| **A** | 30°37'55.10"N | 76°17'34.70"E |
| **B** | 30°37'50.89"N | 76°17'38.29"E |
| **C** | 30°37'48.95"N | 76°17'35.60"E |
| **D** | 30°37'50.11"N | 76°17'34.25"E |
| **E** | 30°37'52.82"N | 76°17'32.00"E |

The project location and its study area of 10 km falls in the Survey of India, Toposheet No. **H43K2 & H43K6.**

## 3.0 BRIEF FEATURES OF PROJECT

**Table 1: Size/magnitude of project**

| S. No. | Parameters | Description |
|---|---|---|
| 1. | **Identification of the project** | Expansion of the existing steel manufacturing unit namely "**M/s K.S Alloys**" for increasing production capacity from 84 TPD to 410 TPD (1,43,500 TPA) which falls under Schedule 3(a) as per EIA Notification dated 14th September, 2006 and its subsequent amendments. |
| 2. | **Project Proponent** | **Mr. Ashok Kumar** (Partner)<br>E-mail: kssteeltubes@rediffmail.com |
| 3. | **Brief** | Existing production capacity of the unit is 84 TPD of Steel |

| | | |
|---|---|---|
| | **description of nature of the project** | Ingots/Billets/Rolled products (Round, Square, Flats and Angles) or ERW Pipes @ 80 TPD with one Induction Furnace of capacity 7 TPH along with Rolling Mill & Pipe Plant.<br>After expansion, the production capacity of the industrial unit will become 410 TPD (1,43,500 TPA) of Steel Ingots/ Billets/ Rolled products (Round, Square, Flats and Angles)/ ERW Pipes with two Induction Furnaces (1 × 12 TPH & 1 × 15 TPH) along with Rolling Mill & Pipe Plant. |
| 4. | **Salient Features of the Project Proposed** | |
| 4.1 | **Overall plant capacity** | 410 TPD (1,43,500 TPA). |
| 4.2 | **Area Details** | 15,934.36 sq.m (3.9375 acres) |
| 4.3 | **Location** | Village Kumbh, Amloh Road, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab |
| 4.4 | **Water requirement** | Total water requirement for the project on full production capacity is estimated to be 68.5 KLD. Out of which, fresh water demand will be 64 KLD which will be met from ground water.<br>Application will be submitted to PWRDA for ground water approval. |
| 4.5 | **Wastewater** | Approx. 2.4 KLD of domestic effluent is being generated from the existing project which is being treated in septic tank provided within the project premises.<br>After expansion, the quantity of domestic effluent is estimated to be 4.8 KLD which will be treated in proposed STP of capacity 10 KLD.<br>No industrial effluent is being generated from the unit and even after expansion, no Industrial effluent will be generated. |
| 4.6 | **Man Power** | Existing: 45 workers (including both technical & non-technical).<br>After expansion manpower: 105 workers (including both technical & non-technical). 15 workers will be residing within project premises. |
| 4.7 | **Power requirement** | Existing: 4,000 KVA<br>Proposed: 6,000 KVA |

| | | |
|---|---|---|
| | | Total after expansion: 10,000 KVA.<br>DG sets of capacity 125 KVA & 250 KVA has been provided for power backup. DG sets will remain same for power backup after expansion.<br>**Source:** Punjab State Power Corporation Limited (PSPCL). |
| 4.8 | **Alternative site** | No alternative site is being considered as the expansion is proposed within the existing land only. |
| 4.9 | **Land form, Land use and Land ownership** | Total land area of the unit is 15,934.36 sq.m (3.9375 acres)<br>Land documents (registry) and Change of landuse submitted with the report. |

## 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 October to December, 2021 of M/s Devbhoomi Castings Pvt. Ltd. and additional one-month study conducted at project location in November 2023. $PM_{2.5}$, $PM_{10}$, $SO_2$ and $NO_2$ levels (Criteria Pollutants) as well as $NH_3$ and $O_3$ were monitored at 9 locations including project and its 10 km study area. Monitoring stations were keeping in view of the dominant wind direction.

$PM_{10}$ concentration observed in the study area ranges between 72 µg/m$^3$ to 152 µg/m$^3$. Average value at project location is found to be 158 µg/m$^3$. Whereas, $PM_{2.5}$ concentration ranges between 37 µg/m$^3$ to 81 µg/m$^3$ in the study area and average value found to be 96 µg/m$^3$ in project area. This indicates air quality levels in study area as well as project location against 24 hours' average is more than the permissible limits of $PM_{10}$ and $PM_{2.5}$ which is due to presence of industries in Mandi Gobindgarh and Khanna and other agro and biomass burning activities as predominant in the region.

However, mass levels of Gaseous pollutants ($SO_2$, $NO_2$, CO, Ozone & $NH_3$) were found to be much below the prescribed limits of CPCB (24 hours' average NAAQ standards) at study

area as well as project location. 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 K.S Alloys). Noise levels varied from 66.1 dB(A) to 72.8 dB(A) during the day time and were 55.7 dB(A) and 60.5 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.

As no effluent is being generated from the industry and even after expansion, no industrial effluent will be generated from the unit. Hence, surface water quality will not be affected due to the proposed expansion of the industry.

## 8.0 SOIL QUALITY

The observations show that in the study area soil are generally basic to alkaline in nature and sandy loam texture whereas at the project location 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 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.

## 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 followed by Pulse Jet Bag Filter. 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 72.8 dB(A) during day time and 60.5 dB(A) during night time which is much below the limit specified for 8 hours of exposure.

### 10.3 WATER QUALITY

Domestic wastewater will be treated in the proposed STP of capacity 10 KLD to be installed within project premises. No wastewater will be discharged outside the plant premises (under normal operating conditions).

Storm water drains are kept separate from wastewater drains. No Industrial effluent is being generated from the industrial unit. Similarly, after expansion, no industrial effluent will be generated. Hence, surface water quality will not be affected due to proposed expansion.

### 10.4 SOLID WASTE

#### 10.4.1 DOMESTIC WASTE

Approximately, 9 kg/day of domestic solid waste is being generated from the existing project & after expansion, approx. 24 kg/day of domestic waste will be generated, which will be properly collected and segregated into biodegradable and non-biodegradable waste. Solid waste is being disposed off as per Solid Waste Management Rules, 2016.

### 10.4.2 INDUSTRIAL WASTE

2.5 TPD of slag is being generated from existing industrial unit which is disposed of in low lying area. After expansion, the quantity of slag is estimated to be 13 TPD, out of which 20% will be reused for metal recovery within the project premises & remaining 80% will be given to Concrete Blocks/ RCC tiles etc. manufacturing units for co-processing.

### 10.4.3 HAZARDOUS WASTE

Hazardous waste generated from the existing industrial unit is 0.3 TPD exhaust air or gas cleaning residue (APCD dust) under Category 35.1 and 0.04 KLA of used oil under Category 5.1 of Schedule I. After expansion, hazardous waste produced from the industrial unit is estimated to be 0.3 KL/annum of Spent oil under Category 5.1 and 1 TPD of APCD dust under Category 35.1 of Schedule I. Authorization of hazardous waste obtained from PPCB. Agreement has been done with M/s R.P Multimetals Pvt. Ltd. (Unit-II) for disposal of APCD dust. Used oil will be given to authorized vendor.

## 11.0 GREENERY DEVELOPMENT

Since, the project is an existing industrial unit. 5,259.19 sq.m of green area has been proposed within the existing unit which comes out to be 33%. 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 expansion 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 expansion 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 expansion will create additional direct/indirect employment for people. Local people will be preferred for employment during operation stage, after expansion.

## 15.0 CORPORATE ENVIRONMENT RESPONSIBILITY (CER)

Mr. Ashok Kumar (Partner) will be responsible for implementation of the additional environmental activities. The total cost of the project after expansion is estimated to be Rs. 22.22 Crores. Therefore, 1% of the total cost will be spent on additional environmental activities. Thus, Rs. 22 lakhs will be spent on additional environmental activities as per the issue raised during public hearing.

## 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. 150 lakhs and recurring cost per year will be Rs. 15.5 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. Environmental awareness programs for the employees will be conducted. EMD will also ensure cleanliness inside the plant.

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