PROPOSED TERMS OF REFERENCE

1.0 Introduction

Steel being a basic commodity for all industrial activities, quantum of its consumption is considered an index of industrial prosperity. Since independence, there has been a substantial growth in the steel sector in India from 1.5 Million Tons in 1950-51 to about 31 Million Tons at present. Additional steel making capacity of about 8 to 10 Million Tons /year exists in the secondary steel sector. Further, with nearly 20% of the world population, India's contribution is only of the order of 3.4% of world steel production. Hence, short-term and long-term strategies are necessary in planning the development of the steel industry in the country to improve the level of per capita steel consumption. It is expected that with the measures taken by Govt. of India for promotion consumption of iron and steel and expected growth of Indian economy the requirement of steel will significantly increase and accordingly the domestic manufacturing capacity needs to be increase. Considering the potential of Mild Steel Billets/Ingots/Bars/Sections in India and the experience gained by the group in this sector, M/s Kashi Vishwanath Steels Private Limited at Narain Nagar Industrial Estate, Bazpur Road, Kashipur, District Udham Singh Nagar, Uttarakhand has install Steel Plant. Company is now proposed for Expansion & modernization of the existing Unit to produce Mild Steel Billets/Ingots and MS Bars/Sections (Capacity – 2,00,000 MTPA each) through augmentation in the existing Induction Furnaces capacity.

2.0 Description of Project Site

Site selection for the proposed expansion & modernization of existing plant is governed by (i). Proximity to sources of primary raw materials – Sponge iron, iron scrap and coal, (ii). Proximity to end users, (iii). Availability of infrastructure like land free of encumbrance, railway, road, water, high tension line and substation for power evacuation and manpower. The proposed site is well connected by road and rail. The site is 4.5 Km NW from the Kashipur railway Station. The NH- 309 is the main road which is at a distance of 0.03 km S from the site. The nearest airport is Pant Nagar located about 48.71 Km SE away, which is well connected by road. Sponge Iron is available from district Koenjhar of Orissa state and coal is available from Gujarat State (imported coal). Sufficient land is available for the project, Existing Land area is 14.78 Acres. Proposed expansion would be carried out on vacant space of existing production shed (3705.4 Sqm) of existing premises

located at Narain Nagar Industrial Estate, Bazpur Road, Kashipur, District Udham Singh Nagar. Approx. 20% of the area is already developed as Green Belt and being maintained. Additionally 13% of the area is also proposed to develop Green Belt after proposed construction activities. This green area also enhances the aesthetic beauty of the area. Initially total water demand is 506.0 KLD and recycled water is 305.0 KLD. Fresh Water required for Production of Mild Steel Billets/Ingots/Bars/Sections will be 201.0 KLD after proposed expansion, which will be met from existing Bore well.

3.0 Generic Structure of EIA Report

The generic structure of the EIA Report will be as per the MoEF EIA Notification dated 14th September 2006 as amended in 2009 as described below: All documents will be properly referenced with index and page numbers.

Introduction (This chapter will describe the purpose of the report, Identification of nature, size and location of the project (with latitude and longitude), Introduction of project proponent, Description of site and surrounding environment, Location maps, Importance of project to the country and region, and Scope of EIA study, as per TOR approved by MoEF & CC).

Project Description (This chapter will describe the Type and Need of the project, Magnitude of operation, Schedule for approval and implementation, Land requirement, Water requirement and flow scheme, Technology and Process description, Site plan, Layout of project site and boundary, Description of mitigation measures suggested to meet the environmental standards).

Description of the existing Environment (This chapter will describe the study area, period of EIA study, EIA components and methodology, Establishment of baseline data for valued environmental components and base maps / description of relevant environmental component (Meteorology, Air quality, Noise quality, Water quality, Land use, Agriculture, Soil quality, Ecology, Demography, Occupational pattern and Socio-economics).

Anticipated Environmental Impacts and Mitigation Measures (This chapter will describe the investigated impacts due to project on surrounding location, credible accidents and minimization, project design and impacts during construction and regular operation, measures suggested for minimizing and / or

offsetting adverse impacts, Irreversible and Irretrievable commitments on environmental components, assessment of significance of impacts [including criteria for determining significance, assigning significance].

Analysis of Alternatives (Technology & Site) (This chapter will include in case, the scoping exercise results in need for alternatives, Description of each alternative, Summary of adverse impacts of each alternative, Mitigation measures proposed for each alternative and Selection of alternative.

Environmental Monitoring Program (This chapter will include the various aspects of monitoring the effectiveness of mitigation measures suggested including measurement methodologies, frequency, location, data analysis, reporting schedules, emergency procedures).

Additional Studies (This chapter will describe outcome of Public Hearing, Risk Assessment, Social impact assessment and Rehabilitation and Resettlement Action Plan, if any).

Project Benefits (This chapter will include improvement in physical infrastructure, Improvement in social infrastructure, Employment potential of skilled, semi-skilled and unskilled persons, other tangible benefits derived from the proposed project).

Environmental Cost Benefit Analysis (This chapter will include Environmental Cost Benefit Analysis If recommended at the Scoping stage.

Environmental Management and Monitoring Plan (This chapter will describe the administrative aspects of ensuring that mitigation measures are implemented and their effectiveness monitored after approval of the EIA).

Summary and Conclusion (This chapter will describe the overall justification for implementation of the project, and explain methods by which adverse affects of the proposed action have been mitigated).

Disclosure of Consultant Engaged (The name of the consultant engaged with brief resume and nature of consultancy rendered will be provided in this chapter).

4.0 Proposed Terms of Reference

The purpose of Environmental Impact Assessment (EIA) is to determine as precisely

as possible, within the present limits of knowledge and expertise, the likely environmental impacts of the proposed project. The objective will be to establish a clean unit whose waste, if any, can be recycled / reused to the maximum extent feasible. Feasibility of reuse and disposal of liquid and solid wastes generated from the project will be explored. The Terms of Reference proposed for this EIA is as follows:

1. The study area will cover an area of 10 km radius around the proposed project site.

2. EIA procedure as given in the EIA Manual of MoEF & CC will be followed.

3. Baseline environmental quality within 10 km radius of the project site will be assessed based on secondary data collected from various sources supplemented by data generated at site for following environmental components:

a) Land Environment: Information on ecologically sensitive locations within the study area will be collected through field visits (archaeological monuments, monuments of cultural and historical importance, drinking water sources, water bodies, places of scenic beauty, biosphere reserves, national park, wildlife sanctuaries, migratory corridors, defense installation and other ecologically sensitive areas). Reserve and protected forests that falls in the study area and its direction and distance from the project site will be noted. Land use pattern of the area / block to be collected from revenue records. Various physiographic landforms as per SOI map will be provided. Satellite Imagery of the area to establish latest landforms of the study area and core zone will be procured form Google Earth / Wikimapia.

b) Meteorology: Meteorological data for wind speed, wind direction, relative humidity and ambient temperature will be generated close to the site. Readings will be noted on hourly basis for one season. Historical met data from IMD will be obtained to assess the climatic trend.

c) Ambient Air: AAQ data of the study area will be generated by following the guidelines for ambient air quality monitoring published by CPCB. PM_{10}, $PM_{2.5}$, SO_2 and NO_X will be monitored for one season. Carbon monoxide level in the ambient air will be checked using online monitor (grab sample). The monitoring locations

will be selected based on historical wind speed and direction data obtained from IMD and screen modeling. Monitoring stations will be located in downwind direction where maximum / significant ground level concentrations from the project are anticipated. Monitoring location will be established in the adjacent village and in the upwind direction with respect to the proposed project.

d) Ambient Noise: Baseline noise levels will be generated at residential, commercial, sensitive locations and highways once in the season. 24 hourly Noise readings will be taken for day and night using sound level meter once during the study period as per CPCB procedure.

e) Water Quality: Surface and groundwater sampling location within the study area will be identified based on drainage pattern, water utilization and location of bore wells / dug wells. Parameters recommended by CPCB / IS 10500 will be analysed following the standard methods. Sampling will be done once during the study period.

f) Soil: Soil samples will be collected from AAQ Stations. Soil quality analysis will be done for parameters like texture, moisture, organic matter, conductivity, pH, bulk density, water holding capacity and NPK values. Infiltration rate of soil samples collected from the dump yard site will be estimated. Sampling will be done once during the study period.

g) Flora and Fauna: The listing of flora and fauna will be carried out by referring to the published documents of Forest / Wildlife Department and observations recorded by the Scientists during the field visits.

h) Socio-economic Environment: Baseline information will be collected through limited sampling and secondary sources, mainly District Statistics Handbook / Tehsildar's Office: date on population distribution, occupational pattern, agriculture and cropping pattern, educational facility, health care facilities, literacy rate, infrastructure facility, etc will be collected.

4. Topography of the project site will be given with contours drawings. Filling / earth excavation, if done will be quantified and source of filling materials and its transportation issues will be addressed in the report. Strategies will be suggested to reuse the excavated earth generated from the project site. The impact of the project on the existing drainage pattern will be addressed and mitigation

measures will be suggested to counter the adverse impact on the existing drainage pattern.

5. Quantification of air pollution load from the proposed project will be done. Potential environmental impacts will be assessed qualitatively and quantitatively. The changes in the quality of the environment will be predicted using ISCST3 Model. In case the ambient air quality of the surrounding area is predicted to be critical then additional strategies will be suggested as air pollution mitigation measures. The isopleths will be drawn on the location map clearly showing the sensitive targets and impact on it due to the proposed activity.

6. Permission from competent authority to draw the required quantity of water will be obtained. 100% wastewater treatment and reuse option of the treated wastewater will be explored. Strategies will be suggested to ensure that the wastewater does not contaminate the environment.

7. Mitigation measures to prevent leaching, groundwater contamination and prevention of ash from blowing away with wind will be suggested.

8. Greenery development plan will be prepared to enhance the aesthetic quality of the environment.

The plan will also concentrate on measures that will be helpful in attenuating air and noise pollution levels from the project. CPCB guidelines will be followed to design the green belt. Indigenous species and those having long-term economic value will be considered for greenbelt development. 33% of the project area will be reserved to design and develop the greenbelt, landscaping and greenery / gardens / lawns, etc.

9. The existing traffic movement pattern and intensity on the main roads will be monitored for one / two days. The impact of additional traffic due to the proposed plant will be assessed.

10. Rainwater harvesting strategies within the project premises will be suggested as a measure to augment the available groundwater resources of the area / block.

Based on standard procedures prescribed by the National Safety Council and provisions mentioned in the Factories Act, occupational health and safety aspects of the project will be identified.

11. Environmental Management Plan will be drawn up to maintain and enhance the environmental quality in and around the project area. In case the quality of the environment is expected to deteriorate beyond acceptable limits, additional strategies will be suggested. Such strategies include wastewater treatment and reuse, more efficient air pollution control devices, noise reduction measures and additional thrust of ash utilization. The EMP will earmarked specific staff, instruments and finances for routine environmental management as well as collection, collation and examination of various environmental data. A post-project monitoring plan will be suggested to monitor the changes in the environmental quality after implementation of the project. All necessary administrative measures will be incorporated in the EMP to achieve the following objectives:

- Reduction of adverse environmental impacts
- Improvement of environmental quality of the surrounding area
- Waste minimization, reuse and resource recovery
- Waste segregation to make the treatment and disposal cost-effective
- Establish proper monitoring mechanism with adequate infrastructure

12. Risk assessment study will be undertaken and disaster management plan will be prepared to tackle any accident that may occur due to the proposed activity. Potential hazards that may arise out of storage / transportation of hazardous chemicals / materials or due to operation of various processes will be systematically identified using standard hazard identification procedures. Maximum credible accident scenarios will be considered for consequence analysis.

13. Social impact assessment will be carried out by assessing the various developmental potential of the proposed project in the field of employment generation, improvement in physical and social infrastructure base.

14. All environmental concerns directly related to the project activity, as addressed by the Public, State Administration and NGO during the public hearing process would be duly addressed in the Final EIA along with the commitments of the project promoter.