BRIEF SUMMARY

Introduction

KIOCL LIMITED (Formerly Kudremukh Iron Ore Company Limited) is a Government of India undertaking established in the year 1976 and is operating Iron ore pellet plant and blast furnace unit at Panambur, Mangalore, Karnataka.

As a part of backward and forward integration of the existing blast furnace unit at Mangalore, KIOCL has planned following additional facilities:

i. Addition of Ductile Iron spun pipe (DSIP) plant for producing 200,000 tonnes per annum of DISP to meet the growing demand of DI pipes as a result of increased focus on improvement of water supply, waste water drainage system and reuse of waste water for industrial purpose.

ii. Addition of Non-recovery coke oven plant for production of 1,80,000 tonnes per annum coke and 10 MW cogen power plant using flue gas.

The proposed project falls under 3 (a) Metallurgical industries (Ferrous and Non-ferrous) and 4(b) coke oven plants of MoEF&CC, EIA notification 2006. DISP plant will be a value addition project wherein pig iron produced from existing blast furnace will be used to produce DI pipes. The non-recovery coke oven plant will cater to the coke requirement of blast furnace. The flue gas from the coke oven will be utilised to generate power in cogen power plant.

About 389 persons are likely to be employed due to the proposed project.

Project description

The capacity of DISP plant is 0.2 MTPA and land requirement is about 11 acre. The non-recovery coke oven plant is having a capacity of 0.18 MTPA and proposed land requirement is 9.26 acre.

The Technological process steps involved in the manufacture of DI pipes are:

- Receipt of hot metal from Blast furnace
- Desulphurisation process if required
- Composition and temperature adjustments and super-heating of hot metal up to 1500ºC- 1550º C
- Spheroidizing treatment
- Centrifugal casting of pipes
- Pipe weighing
- Heat treatment of pipes
- Pipe Finishing facilities like grinding, cleaning, scouring of pipes, hydraulic pressure testing of pipes, internal cement lining, external Bitumen coating, Packing, etc.

Coke oven batteries for the production of 0.18 million tons per annum of coke has been envisaged. Batteries are provided with two stationary stamping units with one coal storage bunker, one quenching station with auxiliaries, two (2) sets of pusher-cum-charger machines, one (1)
receiving-cum-quench car, repair facilities for oven machines at the end of battery complex, doors, oven anchorage system, flue gas tunnels, chimney etc.

The raw materials required for DISP plant are hot metal, pure magnesium, sand, zinc, and sand whereas coal at 8% moisture is required for coke making. The total fresh water requirement of the DISP plant and coke oven plant is estimated as 150 m³/h and 110 m³/hr respectively. The water will be drawn from existing water reservoir of KIOCL plant.

The estimated annual energy consumption is 70 MkWh for DISP plant and 16.7 MkWh for coke oven plant. At present, power supply for KIOCL plant is availed at 110 kV from KPTCL/MESCOM. For power supply to 415 V loads of DISP, three Load Centre Sub Stations (LCSS) will be installed in DISP plant area for catering to various technological loads.

Site analysis

The proposed plant will be located inside existing blast furnace unit of KIOCL at Baikampady Industrial area of Mangaluru. The land form is industrial and is under the ownership of KIOCL. The proposed site is well connected by road, rail, air and sea as such the site is within the existing KIOCL blast furnace unit at Mangalore. There is no national park, wild life sanctuary, eco sensitive areas within 15 km radius of study area. Gurpur river is at a distance of 0.5 km and Arabian sea is at a distance of 3.0 km from project site. The area is not falling in CRZ act.

Planning

The project is likely to be started after obtaining statutory clearance in 2019 and likely to be completed in 2021. The project schedule is 24 months.

Proposed infrastructure

Since, the project site is within blast furnace complex of KIOCL, the site is well established and no new infrastructure is required. Already 10 ha within the complex and 3 ha around existing township have been covered by the green belt. An additional 2.5 acres in the complex will be used for green belt development.

An individual STP of capacity 50 m³/day capacity is also envisaged.

Rehabilitation & Resettlement (R&R) plan

Rehabilitation & resettlement is not applicable as the land is designated as industrial land of KIOCL.

Estimated project cost

The total investment required for this project has been estimated as Rs 846.9 crore INR.
Analysis of proposal

The project will meet the increased demand of DI pipes as a result of increased focus on improvement of water supply, waste water drainage system and reuse of waste water for industrial purpose. The non-recovery coke oven plant will cater to the coke requirement of blast furnace. Social benefits like direct, indirect employment opportunities and CSR activities will further enhance the socio economic status of the surrounding area. In addition, it will also generate revenue for the district/state. The project may also reduce the import burden of India.