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N M D C Limited

(भारत सरकार का उद्यम) (A GOVT. OF INDIA ENTERPRISE)

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Justification for locating the the Associated facilities of Slurry Pipeline Project in the Forest area

Intent of the Project

NMDC is setting up Slurry Pipeline Project involving construction of Slurry Pipeline System and Iron ore processing plants at Bailadila. The Iron ore processing plant are meant for producing iron ore concentrate (slurry form) using iron ore fines. First Stage Forest Clearance for an area of 33 Ha for Iron ore processing plant at Bacheli is received. The Slurry Pipeline system is meant for transporting the iron ore concentrate (in slurry form) from Bailadila to Nagarnar. Application for grant of forest clearance for the Slurry Pipeline system is registered by Forest Department.

Present proposal

The raw material(iron ore fines & online slimes) required for making the iron ore concentrate in the Iron ore processing plant is to be tapped from the existing facilities of NMDC at Bacheli (Screening plants of Deposit -5, 10/11A). So a conveyor gallery and pipeline will be laid from these existing facilities to Iron ore processing plant. Further an interconnecting pipeline for transfer of iron ore concentrate from iron ore processing plant to Slurry Pipeline system and a separate pipeline from iron ore processing plant to NMDC's tailing dam for disposal of lean tailings generated in the the iron ore processing plant are to be laid.

Therefore, the associated facilities as described above are as below:

- 1. Laying of conveyor gallery from Deposit -5 screening plant to Iron ore processing plant at Bacheli
- 2. Laying of iron ore slime pipelines from screening plants of deposit -5,10/11A to Iron ore processing plant at Bacheli
- 3. Interconnecting pipeline between Iron ore processing plant at Bacheli and Slurry Pipeline for transportation of Iron ore concentrate produced in the Iron ore processing plant
- 4. Pipeline for disposal of lean tailings generated in the iron ore processing plant into NMDC's tailing dam at Bacheli.

The total forest area involved for these associated facilities is 7.116 Ha.

Breif description of the Project

Iron ore being the basic raw material, is the most crucial driving force for the Steel Industry. Domestic requirement of iron ore is likely to increase continuously with the increasing steel demand. Currently, NMDC Ltd under administrative control of Ministry of Steel is the only iron ore miner in the Bailadila region presently producing about 22 million tons per annum (MTPA) of iron ore from 2 fully mechanized mining complexes in the Bailadila range of hills, viz., Bailadila Deposit-14/11C at Kirandul complex and Bailadila Deposit-5 & 10/11A at Bacheli complex in Chhattisgarh state. In view of this situation, in line with directives of Ministry of Steel, NMDC has set an ambitious plan for

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increasing the iron ore production from the current level of 22 MTPA to around 65 MTPA from Bailadila sector, in the state of Chhattisgarh.

The Bailadila sector is served by K-K railway line of East Coast Railways which will not be in a position to evacuate the total produce from the Bailadila sector in the present state. There is a proposal for doubling the K-K railway line after which the capacity of railway line will go up by another 12 MTPA. Even after this, there will be a wide gap between the existing evacuation capacity in Bailadila sector and quantity of the finished product of 65 MTPA envisaged subsequent to opening of new mines of Dep-13 and Dep-4. Further, the evacuation of iron ore is getting affected due to bad weather and due to derailment of wagons during monsoon season.

In the above circumstances, to reduce dependence on Railways, NMDC intends to develop Slurry Pipeline transportation system from Bailadila to Nagarnar as an alternate mode of transport for transportation of iron ore fines in slurry form subsequent to its conversion to iron ore concentrate suitable for making Pellet Feed concentrate. The Slurry is received at terminal station and filtered for making Pellet feed cake for Pellet making.

In steel making, the use of iron ore fines in the form of Pellets is increasing due to the inherent advantages of Pellets (*physical and metallurgical properties*) in increasing the productivity of Steel Plants. Therefore, transportation of iron ore fines subsequent to its conversion to iron ore concentrate (*in slurry form*) is the right initiative taken up by NMDC. Further, NMDC is having accumulated 10 MT iron ore slimes which after beneficiation can be converted into iron ore concentrate suitable for Pellet making.

For the above Slurry Pipeline Project, NMDC is setting up of Iron ore processing plant at Bacheli for making iron ore concentrate suitable for transportation through the Slurry Pipeline. Conveyor gallery, online slimes pipelines, interconnecting pipeline and pipeline to discharge tailings are associated facilities of Slurry Pipeline Project and therefore the application is being submitted for forest clearance for these facilities.

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