Full Title of the Project : Kandla Gorakhpur LPG Pipeline Project
Proposal No. : FP/UP/Pipeline/42798/2019
Forrest Land Proposed for Diversion : 3.9806 Ha.

MUCK DISPOSAL CERTIFICATE

M/s IHB Private Limited, the user agency is hereby certified that the proposal of Protected forest with reserve forest land diversion of **1.2909 hectare under social forestry division in District Unnao by which reserve forest land diversion proposal of 1.0885 forest land under Murtaza Nagar reserve forest and National Highway-25 (Lucknow-Kanpur) protected forest Tehsil-Unnao, 0.1500 hectare forest land under Turkman Nagar reserve forest Tehsil-Unnao, 0.0500 hectare forest land under Orhar reserve forest Tehsil-Unnao and 0.0024 hectare at National Highway-25 (Lucknow-Kanpur) Village-Kewana Tehsil-Hassanganj in District Unnao for Laying of proposed 16/10.75 inch diameter LPG Pipeline from Unnao – Gorakhpur section under Kandla-Gorakhpur LPG Pipeline Project.** The soil digging will not be done in the protected forest land but in the reserved forest area the pipeline will be laid through open cut method so construction activity for laying pipeline involves excavation of 2311.20 cum of earth. Out of 2311.20 cum total 2144.28 cum quantity shall be backfilled in the trench with completion activity after pipeline laying. The remaining 166.92 cum quantity shall be put over pipeline trench in convex shape of average 200 mm to 250 mm height as per pipeline laying practices. Therefore there will not be surplus muck, which required being dumped.

Disposal/ Management Plan

While preparing FCA Case, if there is any activity in the project involved digging of Land, muck disposal/ management plan has to be prepared.

It should include of the following,

1. Calculation of muck to be generated self factor has to be applied. N.A.
2. Quantity of muck to utilized in the project activities. N.A.
3. Balance quantity of muck which requires disposal/ Management plan? N.A.
4. Carriage of muck from the muck generation site to the dumping site? N.A.
5. Ownership of land and the consent of land owner, in case muck disposal on non forest land. N.A.
6. Photograph & carrying capacity of proposed dumping site. (Muck disposal site) N.A.
7. Development of dumping site – construction of retaining walls and other structure as per requirement of the site. The objectives are to complete stop rolling down of the muck. N.A.
8. Rehabilitation of dumping site like leveling planting of grass, shrubs and trees species. N.A.

After Construction work of approach road will be done.
Cost to be incurred on the above activities has to be given as component wise. Details of dumping site including length, width and height of structure to be exacted must be mentioned.

Undertaking by the user agency has to be given to the effect that:

1. Muck management plan will be implemented by the user agency and in case of non implementation of the play, they will be liable to the penalty / action at the cost.
2. The proposed dumping site is located away from river/ stream/ Nala.

M/s IHB Private Limited

(Amit Jain)
Chief Manager (Project)

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Calculation of Muck

Quantity of excavation:

Pipeline length = 1.284 km

= 1284 m (L)

Pipeline trench width = 1.2 m (B)

Pipeline trench depth = 1.5 m (H)

Quantity of earth excavation for pipeline trench = L X B X H

= 1284 X 1.2 X 1.5

= **2311.20 cum**

Pipeline volume in trench

Pipeline diameter (considering maximum size of pipeline as 16" OD) = 16 inch = 0.406 m (D)

Area of circular cross section = (pi X D2)/4 = 0.130 sqm (A)

Pipeline volume = A X L = 0.130 X 1284 = **166.92 cum**

Quantity of soil backfilled with proper compaction = 2311.20 – 166.92 = 2144.28 cum

Total extra excavated earth = Pipeline volume in trench = 166.92 cum

We consider approx. 200 mm to 250 mm convex shape crown over the 1.2 m width of trench considering the shape is near to triangle with a base of 1.2 m width.

Volume of crown = 1284 X 0.5 X 1.2 X (0.200 + 0.250)/2 = 173.34 cum

Amit Jain

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