Environment Management Plan

The environment management plan has been developed with a view to bring down the levels of impacts during proposed excavation activities in each of the areas of impact, measures have to be taken to reduce potentially significant adverse impacts and where these are beneficial in nature, such impacts are to be augmented so that the overall adverse impacts are reduced to as low level as possible. Measures to be taken for each of the impact areas are detailed as follows:

IMPACTS AND MITIGATION MEASURES

The pollution potential of the project, its probable impacts on surrounding environment and the proposed mitigation measures for control and abatement of pollution are described below.

AIR ENVIRONMENT

IMPACTS

Although the clay mining does not impose any direct impact on the existing air quality. However, transportation and processing of raw clays into the products could cause atmospheric pollution. In brick earth mining, the source of air pollution is the fugitive dust arises during the excavation, loading and transportation. Loading and unloading of brick clay would be associated with the fugitive dust emission in the areas and villages situated adjacent to road. Another source of air pollution would be running of vehicles. Vehicular emission can pose serious health hazard.

MITIGATION MEASURES

- All trucks/tractor trolleys will be covered by tarpaulin sheet to prevent dust emission.
- Regular water sprinkling shall be done on the haul road.
- Overloading of trucks/tractor trolleys shall be avoided.
- Regular maintenance of the vehicles will be carried out and certified from the concerned authority shall be ensured before deployment of the vehicles.
- The boundary of the working site will be covered to avoid dust dispersion

WATER ENVIRONMENT

IMPACTS

Ground water contamination could be due to the excavation of the mineral at an inadequate depth. Impact on surface water is concerned, during mining, transportation and processing, there are chances of contamination of surface water bodies (pond, well etc. if located nearby) with dust or other means. Due to inadequate facility of waste disposal may lead to surface water contamination.

MITIGATION MEASURES

- The borrowing/excavation activity shall be restricted to a maximum depth of 2 m below general ground level at the site.
- The borrowing/excavation activity shall be restricted to 2 m above the ground water table at the site.
- The borrowing/excavation activity shall not alter the natural drainage pattern of the area.

- Safeguard will be taken against health risk on account of breeding vectors in the water bodies created due to burrowing/excavation of soil by sprinkling of pesticides.
- Laborers would not be allowed to throw trashes in the water bodies.

LAND ENVIRONMENT
IMPACTS

Clay mining is the process of scooping of brick clay that actively supports the agricultural activities of an area. The removal of naturally formed soil from clay particles is really a loss forever of this fertile natural medium. Due to continued and unscientific clay mining, pits of different dimensions are formed in the affected areas. Some of the pits may later be restored to the original level and some of the pits may be converted into water pond. The depths of the pits often reaches >1m (3 ft) or more from the general ground level. The artificial ponds created in random locations due to indiscriminate clay mining may lead to land stability problems in the adjoining areas.

MITIGATION MEASURES

- Top soil (0.2 m) will be scooped first and stored for further reclamation of the mined out areas. Clay/soil mining will be limited to 1.5 m only from the general ground level.
- No foreign material like polythene bags, jute bags, sachets, pouches and useless articles should be allowed to remain/spill on the land or no pits/pockets will be allowed to be filled with such materials.
- Mining will not exceed beyond the extraction depth.
- The borrowed/excavated pit shall be restored by the project proponent for useful purpose(s).
- Appropriate fencing all around the borrowed/excavated pit shall be made to prevent any mishap.
- A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.

NOISE ENVIRONMENT
IMPACTS

As far as noise pollution is concerned, clay mining does not contribute much, except the noise generated from the vehicles that transport raw clays scooped from lands and the products from the clay-based industrial units. Noise level in the working environment is compared with the standard prescribed by Central Pollution Control Board which has been adopted and enforced by the Govt. of India through The Noise Pollution (regulation and Control) Rules, 2000 for Ambient Air w.r.t. Noise.

MITIGATION MEASURES

- Regular maintenance of vehicles shall be ensured.
- Only the vehicles having valid fitness certificate shall be deployed.
- There shall be restriction on vehicular movement during the night time

CONCLUSION: As per the assessment, Feasibility Report & EMP shows that the excavation of Brick Earth from the uneven vacant field is essential to maintain natural drainage pattern & even ground level of the site so the proposed project does not cause any impact on Environment.