Points of discussion for the Environmental Clearance of Brick Clay Mining

Environmental Consultant
Fulgro Environmental & Engineering Services (I) Pvt. Ltd.
(QCI-NABET accreditation Sl No 64)
Essentialities for the Environmental Clearance for brick clay mining

A. PROOF OF CLAY MINING FOR BRICK KILN
Documents related to Brick Kiln
1. NOC /CTO of PCB for Brick Kiln
2. Paid Advance Royalty receipts, Panchayat, TIN number of Kiln and paid TT

B. IDENTIFICATION OF LOCATION OF PROPOSED GATA FOR BRICK CLAY EXCAVATION
1. Certified Village Khazina Map (Mandatory)
2. Google map of area which would provide distances between excavation areas and brick kiln
3. SOI Toposheet (1:50000)

C. LEGALITY OF EXCAVATION FROM POPOSED GATA(s).
1. Land ownership through Revenue Record Detail.
2. Notarized agreement deed on affidavit describing depth of excavation duration & area permitted for excavation on Rs. 100/- Stamp Paper.
3. In case the Kiln owner or a partner is giving their own land an affidavit to this effect on Rs. 100- Stamp Paper.
4. As per State Govt norms as per land revenue act/Tenancy Act

D. CALCULATION OF EXCAVABLE SOIL
Plot wise excavation, corresponding depth and period excluding safety margins

E. DETAILS OF CLOSURE PLAN AND REHABILITATION

F. ENVIRONMENT MANAGEMENT PLAN (EMP) – As Applicable
NOC and Royalty

West Bengal Pollution Control Board
Parbathan Bhavan
10 A, Block - LA, Section - III
Salt Lake, Calcutta - 700091

Memorandum

From: Member Secretary, West Bengal Pollution Control Board
To: Shri Prasenjit Bandopadhyay

Sub: Consent to Establish (NOC) from Environmental Point of View

Ref: Your letter No. F-11 dated...DI-03-04-1

Dear Sir,

In response to the application for Consent to Establish (NOC) for proposed Unit of
M/S Eco Bio-Tech (P) Ltd,

for manufacturing sewage treatment plant

M/S Eco Bio-Tech (P) Ltd,

Plat No. 10742 & 10745

This is to inform you that this Board hereby grants the consent to Establish (NOC) from the environmental point of view subject to the following conditions and stipulated conditions attached:

1. The quality of sewage and trade effluent to be discharged from your factory shall satisfy the permissible limits as prescribed in IS 24400 and IS 24400 of 1974, and/or any subsequent amendment to the Environment (Protection) Rules 1986;

2. Suitable arrangements to treat your effluent shall be advised to you in writing to reduce the pollution load so that the quality of the effluent satisfies the standards mentioned above.

3. You shall have to apply to this Board in case to operate and discharges of sewage and trade effluent according to the provision of the Water (Prevention and Control of Pollution) Act, 1974. No sewage or trade effluent shall be discharged by you without prior consent of this Board.

Counted Page 1
Certified Village Khasra Map
(showing proposed excavation gata(s))
Cluster situation

As per Ministry Of Environment, Forest And Climate Change Notification dated 15th January, 2016 the definition of cluster is:

“A cluster shall be formed when the distance between the peripheries of one lease is less than 500 meters from the periphery of other lease in a homogeneous mineral area.”
Google map explaining the cluster formation (500 m radius) and Haulage route

Google map of 500 m radius showing distance between mines, kiln and haulage route
Environmental sensitivity
As per Mining rules:

- No mining operations shall be carried within a distance of 50 m from railway line except with the previous permission.
- The said distance of 50 m shall be measured in the case of railway, reservoir, canal, or road horizontally from the outer toe of bank.
- Distance if village road shall be 10 m from outer edge of cutting.
Land documents

Land Agreement Paper

Revenue Record Detail
**Mine closure Plan**

1. **Mining operations** - as per mining rules
   - In form of terraces and benches
2. **Height and width of each bench** - <1 m
3. **Slope** - <30°

**Stabilization of slope:**

1. **Planting of fast growing local species** eg. Sabai grass etc. having extensive root system, so as to bind the soil.
2. **Plantation of bio vegetative species** along the bund wall to act as a fence.
3. **Plantation across the slope** so as to arrest the soil movement, due to wind and water erosion.
4. **Loss of fertile top soil from adjoining farms** will be arrested by making bund walls.

**Area before Excavation**

**Area after removal of top soil**

**Reclamation of mined out area**

**Top soil**

**Agricultural field**
Bird eye view of mining area

- **Surface Plan**
  - **Total Area**: 2.812 ha
  - **Village**: Devpur, Tehsil – Auraiya, District – Auraiya

**PREPARED BY**
ENV DAS India Pvt. Ltd
QCI Accredited Consultant
(Under NABET Scheme) RQP-DR. ABDUL RAHMAN REG.NO-RQP/BNG/282/2011/A
VALID UPTO-28/04/2021

**Index**
- **Lease Boundary**
- **Berm**
- **Bench**
- **Top Soil 16cm/0.15m**
- **Plantation/Shrub**
- **Dump Top Soil**

**Pit Section along 1-1’**

- **RAMP**
- **Top soil stored and stabilized**
- **Storage of green brick**

**Legend**
- **Plantation on 1 m wide berm**

**Signature:**
In the Deepak Kumar versus State of Haryana the Hon’ble Supreme Court and in the subsequent orders the Hon’ble High Court, Allahabad & national Green Tribunal have treated the matter of minor minerals (including ordinary brick clay earth) as a problem of indiscriminate, unregulated extraction which requires careful monitoring and regulation. One of the fools suggested to create a regulatory regime in the mine plan and the other is the Environmental Clearance.

The basic intention is to ensure that mining and excavation is not undertaken beyond the estimated/sanctioned capacity. In the case of brick earth the capacity is linked to the firing capacity (annual) of a brick-kiln on the basis of which royalty is also charged. Therefore, the mine plan should also indicate the availability of the brick earth vis-à-vis the capacity of the kiln and the duration for which this EC sanctioned brick earth would be sufficient.
The following members were present during the meeting:

1. Dr. S. R. Wate - Chairman
2. Prof. B.B Dhar - Member
3. Dr. G.K Pandey - Member
4. Dr. S. P. Chakrabarti - Member
5. Prof. Umesh Kulshrestha - Member
6. Prof. C.P. Kaushik - Member
7. Dr. Nalini Bhat - Member
8. Prof. G.J. Chakrapani - Member

Mr. A.K. Jha – Senior Director, Dr. S . K. Mishra- Joint Director , Dr. Pawan K. Singh – Assistant Director and Ms. Meenakshi Arora–Accreditation Officer were present in the meeting.

Minutes of the Accreditation Committee meeting dt. November 10, 2017 were approved

1.0 Case for Surveillance Assessment

Following case was discussed and decisions taken as noted below.

1.1 Fulgro Environmental & Engineering Services (I) Pvt. Ltd, Jaipur

The ACO has been assessed as per Version 3 of the Scheme. Result of the Surveillance assessment (SA)
<table>
<thead>
<tr>
<th>S.No.</th>
<th>EC No.</th>
<th>Description</th>
<th>Earlier approval status</th>
<th>Approval status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
<td>Thermal power plants</td>
<td>A</td>
<td>1 (d)</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Cement Plants</td>
<td>B</td>
<td>3 (b)</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>Metallurgical industries (ferrous and non ferrous)</td>
<td>B</td>
<td>3 (a)</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>Petrochemical based processing (processes other than cracking &amp; reformation and not covered under the complexes)</td>
<td>A</td>
<td>5 (e)</td>
</tr>
<tr>
<td>7</td>
<td>21</td>
<td>Synthetic organic chemicals industry (dyes &amp; dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)</td>
<td>A</td>
<td>5 (f)</td>
</tr>
<tr>
<td>8</td>
<td>27</td>
<td>Oil &amp; gas transportation pipeline (crude and refinery/ petrochemical products), passing through national parks/ sanctuaries/coral reefs /ecologically sensitive Areas including LNG terminal</td>
<td>A</td>
<td>6 (a)</td>
</tr>
<tr>
<td>9</td>
<td>28</td>
<td>Isolated storage &amp; handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of Schedule 2 &amp; 3 of MSIHC Rules 1989 amended 2000)</td>
<td>B</td>
<td>6 (b)</td>
</tr>
<tr>
<td>10</td>
<td>32*</td>
<td>Common hazardous waste treatment, storage and disposal facilities (TSDFs)</td>
<td>A</td>
<td>7 (d)</td>
</tr>
<tr>
<td>11</td>
<td>34</td>
<td>Highways</td>
<td>A</td>
<td>7 (f)</td>
</tr>
<tr>
<td>12</td>
<td>36</td>
<td>Common effluent treatment plants (CETPs)</td>
<td>B</td>
<td>7 (f)</td>
</tr>
<tr>
<td>13</td>
<td>37</td>
<td>Common municipal solid waste management facility (CMSWMF)</td>
<td>B</td>
<td>7 (i)</td>
</tr>
<tr>
<td>14</td>
<td>38</td>
<td>Building and construction projects</td>
<td>B</td>
<td>8 (a)</td>
</tr>
<tr>
<td>15</td>
<td>39</td>
<td>Townships and Area Development projects</td>
<td>A</td>
<td>8 (b)</td>
</tr>
</tbody>
</table>

Note *: ECs approved for Sector 32 may also works as EC for sector 32A, if the organization has approved FAE SHW or BMW.

**1.1.3 Sectors approved for EIA Coordinators (ECs)**

a. Assessed as per SA norms – for ECs approved earlier:
Other requirements for Mine Plan OF brick clay mining

- Visual Survey
- Mining methodology- manual/semi-mechanized/mechanized.
- Closure Plan.
- Distances of embankments as per MoEF notification.

**Limitation:**

- Cadastral Survey not possible as - number of plots applied for excavation are large and most plots area-wise are too small.
- Leveling not possible as- unlike riverbed or stone mines, brick clay excavation done from gatas located in agricultural area with flat topography where little gradient available and depth for excavation is permitted only 2 m.
Scope of Work

» We will contact the allocated Districts Association and coordinate with Brick Kiln Owners.
» We will educate them and update them on the requirements of Documents required for processing the EC.
» We will collect the documents as required and our office will analyze the same.
» If any shortcoming is observed, it will be informed within three days to the Brick Kiln Owner for further compliance.
» In the meantime our Technical Person will survey the Mining Site for analysis and assess the actual ground situation, if required.
» Once the documents are complete our Team will prepare the Mine Plans and PFR, Form-1 and Form 1M, EMP and District Environmental Profiles and complete the reports.
» We will get the approval of the Mine Plans from respective authority as designated by the West Bengal Government.
» On approval of Mine Plans, the reports will be submitted online / offline to the DEAC/DEIAA for hearing / perusal.
» A copy of the Application will be provided to Brick Kiln owners either by hand or speed post.
Scope of Work

- We will coordinate with the DEAC/DEIA to conduct hearings / meeting with in a stipulated time for seeking the Environmental Clearances of the cases.
- Our QCI approved coordinators / FAE / FAA will appear and do audio-visual presentation for the hearing / meeting of DEAC/DEIA for each case as per need.
- We will also do our liaisoning work on behalf of Brick Kiln owners with DEIA for issuance of EC.
- All technical requirements / presentations required to get EC is on our scope of work.
- We will try our level best to get all work done within the stipulated as per Notification.
- For effective management of the cases, we will be requiring the assistance / help of the District Level Brick Kiln Associations with respect to interaction with the local administration.
APPENDIX VIII
(See paragraph 6)
FORM 1 M

APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY 'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE

(I) Basic Information
(viii) Name of the Mining Lease site:
(ix) Location / site (GPS Co-ordinates):
(x) Size of the Mining Lease (Hectare):
(xi) Capacity of Mining Lease (TPA):
(xii) Period of Mining Lease:
(xiii) Expected cost of the Project:
(xiv) Contact Information:

Environmental Sensitivity

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Areas</th>
<th>Distance in kilometer / Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Distance of project site from nearest rail or road bridge over the concerned River, Rivulet,Nalla etc.</td>
<td></td>
</tr>
</tbody>
</table>
| 2.     | Distance from infrastructural facilities  
  Railway line 
  National Highway State 
  Highway  
  Major District  
  Road Any  
  Other Road  
  Electric transmission line pole or tower  
  Canal or check dam or reservoirs or lake or ponds  
  Intake for drinking water pump house  
  Intake for Irrigation canal pumps |                                  |
<p>| 3.     | Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value |                                  |
| 4.     | Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests |                                  |
| 5.     | Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration |                                  |
| 6.     | Inland, coastal, marine or underground waters |                                  |
| 7.     | State, National boundaries |                                  |
| 8.     | Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas |                                  |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Defence installations</td>
</tr>
<tr>
<td>10.</td>
<td>Densely populated or built-up area, distance from nearest human habitation</td>
</tr>
<tr>
<td>11.</td>
<td>Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)</td>
</tr>
<tr>
<td>12.</td>
<td>Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)</td>
</tr>
<tr>
<td>13.</td>
<td>Areas already subjected to pollution or environmental damage (those where existing legal environmental standards are exceeded)</td>
</tr>
<tr>
<td>14.</td>
<td>Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)</td>
</tr>
<tr>
<td>15.</td>
<td>Is proposed mining site located over or near fissure / fracture for ground water recharge</td>
</tr>
<tr>
<td>16.</td>
<td>Whether the proposal involves approval or clearance under the following Regulations or Acts, namely: (a) The Forest (Conservation) Act, 1980; (b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.</td>
</tr>
<tr>
<td>17.</td>
<td>Forest land involved (hectares)</td>
</tr>
<tr>
<td>18.</td>
<td>Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? (a) Name of the Court (b) Case No. (c) Orders or directions of the Court, if any, and its relevance with the proposed project.</td>
</tr>
</tbody>
</table>

(Signature of Project Proponent
Along with name and address)

19 - Substituted vide S.O. 141(E) dated the 15th January 2010.