

Environmental Consultant

Fulgro Environmental & Engineering Services (I) Pvt. Ltd. (QCI-NABET accreditation SI 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. <u>Google</u> 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 <u>agreement</u> 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 <u>CLOSURE</u> PLAN AND REHABILITATION

F. ENVIRONMENT MANAGEMENT PLAN (EMP) - As Applicable



NOC and Royalty

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

| | | | | Salt Lak | e, Cal | | | | | | | |
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| Memo | o.no | 5 | | | | D | ated | | 5- | 9.08 | | -10 |
| From | | | retary, Polluti | oa Control | Board | | | | | | | |
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TIN NO.

http://egov.adcomtax.gov.in/PT_Enrollment

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| This is to certify that | SASAR DIRADRA WORDIL | | impaged in the |
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DIC Certificate



Office of the Bankura Zilla Parishad,

Court Compound, Bankura

Phone: 03242-250644 / 255450 / 25193 / 256492 / 250270 / 250281 / 257822 / 257844

Fax: 03242-250665 / 256492 / 251711 / 240411 Website: www.bankurazillapurishad.org

E-mail: subbadhiputi-bak@nic.in. acozp-bak@nic.in. bakssatcell@rediffmail.com

Memo No: 1487/29/16

Dane 26/85/2016

To
Sri /
The Proprietor, "PRASAD"
Brick Field
Patrasayers, bankura, (Address)

No Objection Certificate

You are hereby informed that Bankura Zilla Parishad has no objection if (Name) Brick Field /Brick Field of (Name) Brick Field /Brick Field of (Name) Brick Field /Brick Field of (Name) (Name of Proprietor) runs its operation on the land described in the schedule below provided that the operation of the Brick Field shall not, in any way, adversely affect any Public Road, Bridge and Culvert or any Protected Area etc. and shall not impede the natural flow of water through say river, canal etc. and the Brick Field Authority abides by all the relevant Rules, Government Orders, Notifications etc. issued by the State Government or other Competent Authorities from time to time.

This No Objection Certificate will remain valid for One year from the date of issue and he has to take licence from D.L. & L.R.O. before operation of Brick field.

Description of Land:

Name of Mouza-

a boyarsoda

Plot No. -

No. -

2.79 0001.

WW 24/7/16

Bankura Zilla Parishad

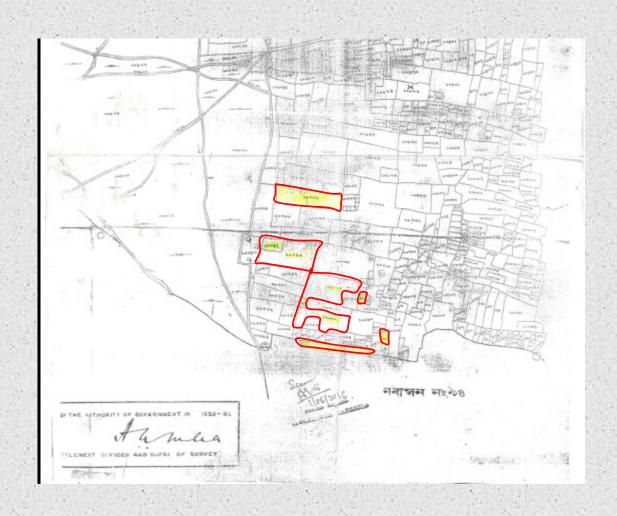
2

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"



APPENDIX - XI [See paragraph 7 (iii) (b)]

PROCEDURE FOR ENVIRONMENTAL CLEARANCE FOR MINING OF MINOR MINERALS INCLUDING CLISTER

The following policy shall be followed for environmental clearance of mining of minor minerals including cluster situation:

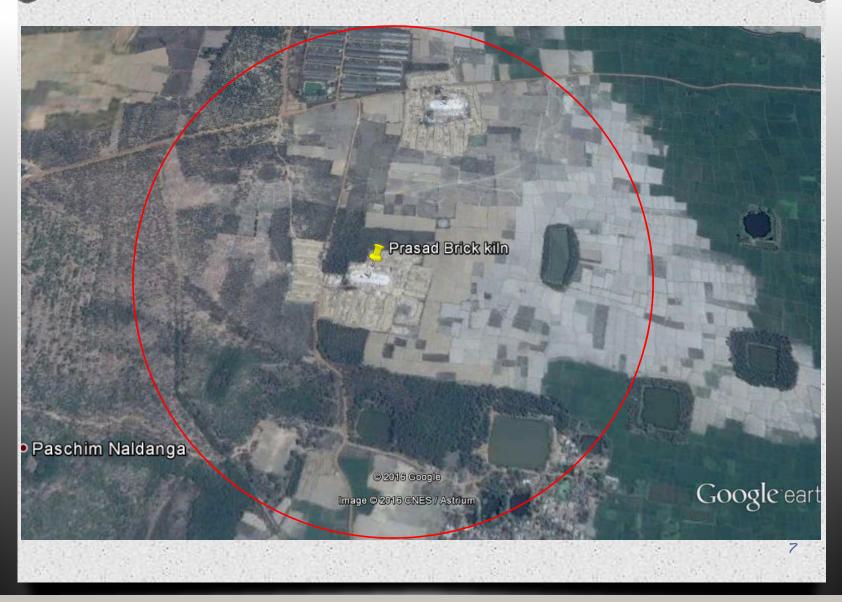
- (1). The data provided by the States (Sustainable Sand Mining Quidelines) shows that most of the mining leases for minor minerals are of lease area less than 5 hectare. It is also reported that in hill States getting a stretch in river with area more than 5 hectare is very uncommon. So the size of lease for minor minerals including river sand mining will be determined by the States as per their circumstances.
- 2). The mining of minor minerals is mostly in clusters. The Environment Impact Assessment or Environment Management Plan are required to be prepared for the entire cluster in order to capture all the possible externalities. These reports shall capture carrying capacity of the cluster, transportation and related issues, replenishment and recharge issues, geo-hydrological study of the cluster area. The Environment Impact Assessment or Environment Management Plan shall be prepared by the State or State nominated Agency or group of project proponents in the Cluster or the project proponent in the cluster.
- (3). There shall be one public consultation for entire cluster after which the final Environment Impact Assessment or Environment Management Plan report for the cluster shall be prepared.
- (4). Environmental clearance shall be applied for and issued to the individual project proponent. The individual lease holders in cluster can use the same Environment Impact Assessment or Environment Management Plan for application for environmental clearance. The cluster Environment Impact Assessment or Environment Management Plan shall be updated as per need keeping in view any significant change.
- 6). The details of cluster Environment Impact Assessment or Environment Management Plan shall be reflected in each environmental clearance in that cluster and DEAC, SEAC, and EAC shall ensure that the mitigative measures emanating from the Environment Impact Assessment or Environment Management Plan study are fully reflected as environmental clearance conditions in the environmental clearance's of individual project proponents
- in that cluster.

 6. 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.
- Form 1M, Pre-Feasibility Report and mine plan for Category 'B2' projects for mining of minor minerals shall be prepared by the Segment Condition of the Condition of Condi
- 8). The SEIAAs shall have supervisory jurisdiction over the DEIAAs and decisions of DEIAA shall be reviewed by the SEIAA without prejudice to any provisions under any existing law.

Schematic Presentation of Requirements on Environmental Clearance of Minor Minerals including cluster situation

6

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 form 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



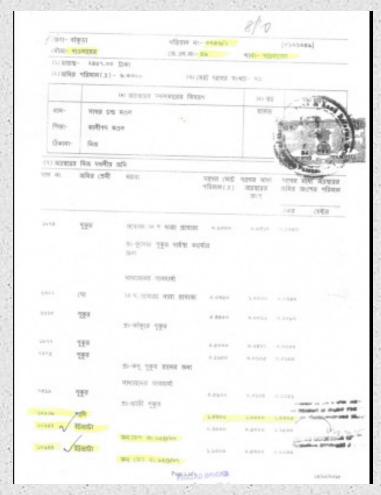


Land documents

Land Agreement Paper



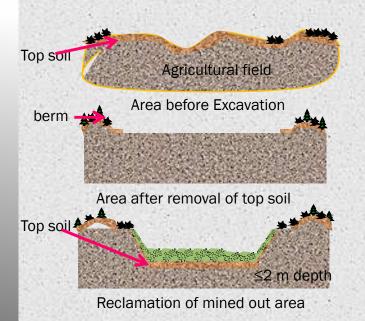
Revenue Record Detail

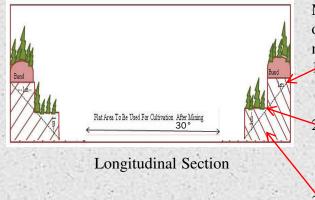




Mine closure Plan







Mining operations- as per mining rules

- In form of terraces and benches
 Height and width of
- width of each bench-
- <1 m Slope- <30°

Stabilization of slope:

Planting of fast growing local species eg. Sabai grass etc. having extensive root system, so as to bind the soil.



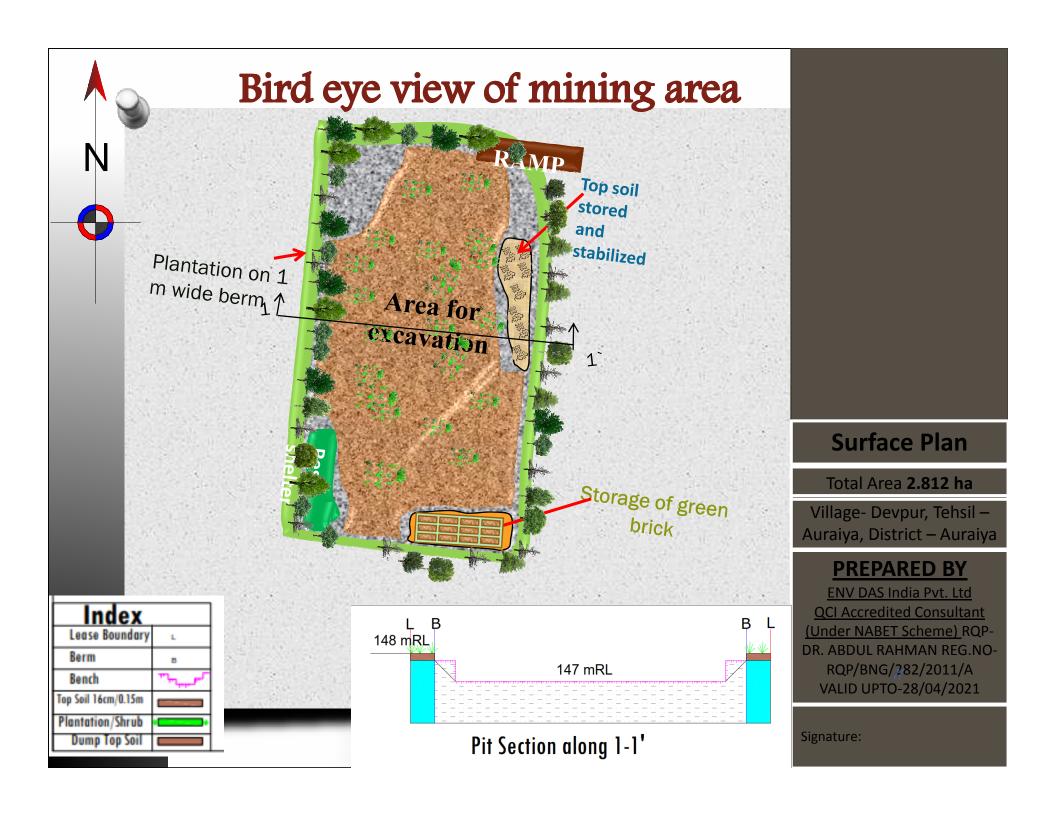
Plantation of bio vegetative species along the bund wall to act as a fence.



Plantation across the slope so as to arrest the soil movement, due to wind and water erosion.



Loss of fertile top soil from adjoining farms will be arrested by making bund walls.



Mining Reserve/ Duration

| | Plot o. (s) | Area (Acre) | Area (sqm) | Depth as per agreemen t (m) | Proposed depth for mining (m) | Area of Berm left surrounding the site (sqm) 2% | Volume of Top Soil (cum) 0.15 m 7.5% | Volume of blockage (cum) 4% | Mineable quantity of Soil (cum) |
|----|----------------|----------------|---------------|--------------------------------------|-------------------------------------|---|---|--------------------------------------|--|
| 10 |)996 | 0.10 | 2828 | 2m | 1.85 m | 8.08 | 30.3 | 16.16 | 349.46 |
| 10 |)972 | 0.70 | 2020 | 2m | 1.85 m | 56.56 | 212.1 | 113.12 | 2446.22 |
| 10 | 961 | 0.50 | 1737.2 | 2m | 1.85 m | 40.4 | 151.5 | 80.8 | 1747.3 |
| 10 |)969 | 0.43 | 363.6 | 2m | 1.85 m | 34.744 | 130.29 | 69.488 | 1502.678 |
| 10 | 971 | 0.09 | 242.4 | 2m | 1.85 m | 7.272 | 27.27 | 14.544 | 314.514 |
| 10 |)991 | 0.06 | 5777.2 | 2m | 1.85 m | 4.848 | 18.18 | 9.696 | 209.676 |
| 10 | 938 | 1.43 | 2828 | 2m | 1.85 m | 115.544 | 433.29 | 231.088 | 4997.278 |

- 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.

NATIONAL ACCREDITATION BOARD FOR EDUCATION & TRAINING QUALITY COUNCIL OF INDIA

QCI Office, 6th Floor, ITPI Building, Ring Road, I.P. Estate, New Delhi Scheme for Accreditation of EIA Consultant Organizations

Accreditation Committee Meeting for Surveillance Assessment held on November 24, 2017

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)



| | | development & production | | |
|----|-----|---|---|-------|
| 3 | 4 | Thermal power plants | Α | 1 (d) |
| 4 | 9 | Cement Plants | В | 3 (b) |
| 5 | 8 | Metallurgical industries (ferrous and non ferrous)o | В | 3 (a) |
| 6 | 20 | Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes) | Α | 5 (e) |
| 7 | 21 | Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) | А | 5 (f) |
| 8 | 27 | Oil & gas transportation pipeline (crude and refinery/petrochemical products), passing through national parks/sanctuaries/coral reefs /ecologically sensitive Areas including LNG terminal | А | 6 (a) |
| 9 | 28 | Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of Schedule 2 & 3 of MSIHC Rules 1989 amended 2000) | В | 6 (b) |
| 10 | 32* | Common hazardous waste treatment, storage and disposal facilities (TSDFs) | Α | 7 (d) |
| 11 | 34 | Highways | Α | 7 (f) |
| 12 | 36 | Common effluent treatment plants (CETPs) | В | 7 (h) |
| 13 | 37 | Common municipal solid waste management facility (CMSWMF) | В | 7 (i) |
| 14 | 38 | Building and construction projects | В | 8 (a) |
| 15 | 39 | Townships and Area Development projects | Α | 8 (b) |

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:

| | Earlier approval status | Approval status | |
|--|-------------------------|-----------------|--|





Other requirements for Mine Plan OF brick clay

Visual Survey

Mining methodologymanual/semimechanized/mechanized.

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/DEIAA 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 audiovisual presentation for the hearing / meeting of DEAC/DEIAA for each case as per need.
- ▶ We will also do our liasioning 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.





(See paragraph 6)

FORM 1 M

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

- (II) 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:

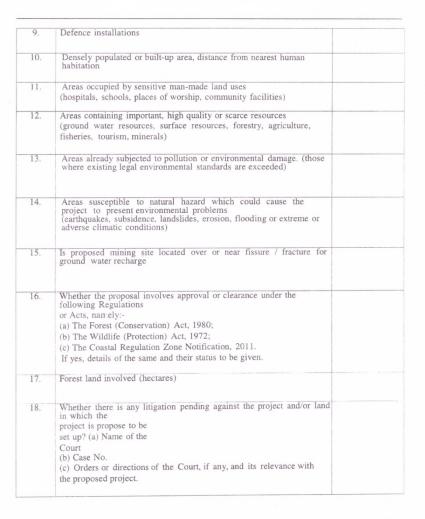
Environmental Sensitivity

| Sl. No. | Areas | Distance in kilometer / Details |
|---------|--|---------------------------------|
| 1. | Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc. | |
| 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 In-take for drinking water pump house Intake for Irrigation canal pumps | |
| 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 | |



18





(Signature of Project Proponent Along with name and address)