

Minutes of 574th SEAC-1 Meeting Dated 23/09/2021

The 574th meeting of SEAC-1 was held in the Directorate of Environment, U.P. through dual-mode (physically/virtually) at 11:00 AM on 23/09/2021. Following members participated in the meeting:

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|----|-----------------------------|----------------------------|
| 1. | Shri Rajive Kumar, | Chairman, SEAC-1 |
| 2. | Dr. Ajai Mishra, | Member, SEAC-1 |
| 3. | Shri Om Prakash Srivastava, | Member, SEAC-1 (Virtually) |
| 4. | Dr. Brij Bihari Awasthi, | Member, SEAC-1 |
| 5. | Shri Umesh Chandra Sharma, | Member, SEAC-1 (Virtually) |
| 6. | Dr. Ratan Kar, | Member, SEAC-1 |

The Chairman welcomed the members to the 574th SEAC-1 meeting which was conducted via dual-mode (virtually/physically). Nodal officer, SEAC-1 informed the committee that the agenda has been approved by the Member Secretary, SEAC-1/Director Environment. Nodal officer, SEAC-1 placed the agenda items along with the available file and documents before the SEAC-1.

1. **Stone Mining at Gata No.-1097, Khand No.- 10, at Village-Utiya, Tehsil- Sadar, Mahoba., Shri Devendra Kumar Gupta, Area-0.809 ha. File No. 6023//Proposal No. SIA/UP/MIN/ 58955/2020**

RESOLUTION AGAINST AGENDA NO-01

On the request of project proponent/consultant the case was deferred. The committee also directed to take up this case in the first or second week of October, 2021.

2. **Stone Mining at Arai No.-01, at Village-Ahraura, Tehsil- Chunar, District-Mirzapur, U.P. Smt. Ruchi Singh, Leased Area -1.01 ha. File No. 6414/5772/Proposal No. SIA/UP/MIN/ 225073/2021**

RESOLUTION AGAINST AGENDA NO-02

There is discrepancy in geo-coordinates in ToR's granted and approved lease map. The project proponent/consultant is advised to ascertain the correction in geo-coordinates from DGM. So that environmental clearance may be recommended on corrected geo-coordinates.

3. **Stone Mining at Gata No.-935, Khand No.-01, at Makarbai, Tehsil & District-Mahoba, U.P. Smt. Poonam Bharadwaj, Area -3.643 ha. File No. 6522/6165/Proposal No. SIA/UP/MIN/ 66807/2021**

RESOLUTION AGAINST AGENDA NO-03

On the request of project proponent/consultant the case was deferred. The committee also directed to take up this case in the first or second week of October, 2021.

4. **Stone Mining at Gata No.-1097, Khand No.- 05, at Village- Utiyan, Tehsil-Mahoba, District - Mahoba, Shri Manish Saxena., area-0.809 ha. File No. 6524/6003/Proposal No. SIA/UP/MIN/66727/2020**

RESOLUTION AGAINST AGENDA NO-04

On the request of project proponent/consultant the case was deferred. The committee also directed to take up this case in the first or second week of October, 2021.

5. **Stone Mining at Arajino. No.-98, Khand No.- 07, Village-Parvezabad, Tehsil- Bara, Prayagraj, Shri Rohit Vershney, area-8.094 ha. File No. 6018/Proposal No. SIA/UP/MIN/58921/2020**

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Paramarsh Servicing Environment and development. The proponent, through the documents submitted and the presentation made informed the committee that:

1. The environmental clearance is sought for Building Stone (Khanda, Boulder Gitti) Sand Stone mine at Arajino. /Plot No. - 98, Khand No.-7, Village – Parvezabad, Tehsil- Bara, District- Prayagraj, Uttar Pradesh (Leased Area 8.094 ha.), M/s Allahabad Sands.
2. The terms of reference in the matter were issued by SEIAA, U.P. vide letter no. 740/Parya/SEAC/6018/2019, dated 15/01/2021.
3. The public hearing was organized on 05/08/2021. Final EIA report submitted by the project proponent on 29/08/2021.
4. Salient features of the project as submitted by the project proponent:

| | | |
|-----|---|--|
| 1. | On-line proposal No. | SIA/UP/MIN/58921/2020 |
| 2. | File No. allotted by SEIAA, UP | 6018 |
| 3. | Name of Proponent | Shri Rohit Varshney (Prop) |
| 4. | Full correspondence address of proponent and mobile no. | M/s Allahabad Sands Rohit Vershney (Prop) S/o Shri Jitendra Rai Vershney R/o- Shankargarh, Tehsil- Bara, District – Prayagraj U.P. Mobile no. – 9415238838 E mail ID - rohitsand9415@gmail.com |
| 5. | Name of Project | Environment Clearances of Building Stone (Khanda, Boulder Gitti) Sand Stone mine at Arajino. /Plot No. - 98, Khand No.-7, Area 8.094 ha. (20.0 Acres) at Village – Parvezabad, Tehsil- Bara, District- Prayagraj, Uttar Pradesh of M/s Allahabad Sands |
| 6. | Project Location (Plot. Khasra/Gata No.) | 98, Khand No.-7 |
| 7. | Name of River | Yamuna River - 6.0* Km (N) Ganga River - 20.0 km (N) |
| 8. | Name of Village | Parvezabad, Tehsil- Bara, District- Prayagraj, Uttar Pradesh |
| 9. | Tehsil | Bara |
| 10. | District | Prayagraj |
| 11. | Name of Minor Mineral | Building Stone (Khanda, Boulder Gitti) |

Minutes of 574th SEAC-1 Meeting Dated 23/09/2021

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|-----|---|--|---------------|--------------|
| 12. | Sanctioned Lease Area (in Ha.) | 8.094 ha | | |
| 13. | Max. & Min mRL within lease area | Highest mRL 112.0 m Lowest mRL 101.0 m | | |
| 14. | Pillar Coordinates (Verified by DMO) | Point | Latitude | Longitude |
| | | A | 25° 18.003”N | 81° 41.763”E |
| | | B | 25° 17.970”N | 81° 41.844”E |
| | | C | 25° 17.703”N | 81° 41.669”E |
| | | D | 25° 17.771" N | 81° 41.621”E |
| 15. | Total Geological Reserves | 26,28,740 m ³ | | |
| 16. | Total Mineable Reserve | 11,81,400 m ³ | | |
| 17. | Total Proposed Production | 4,04,700 m ³ (5 years) | | |
| 18. | Proposed Production /year (as per LoI) | 80,940 m ³ /annum | | |
| 19. | Sanctioned Period of Mine lease | 5 years | | |
| 20. | Production of mine/day | 270 m ³ /day | | |
| 21. | Method of Mining | Opencast/Semi-mechanized method | | |
| 22. | No. of working days | 300 | | |
| 23. | Working hours/day | 8 | | |
| 24. | No. of worker | 47 | | |
| 25. | No. of vehicles movement/day | 33 | | |
| 26. | Type of Land | Govt./Non Forest Land (riverbed) | | |
| 27. | Ultimate of Depth of Mining | 12.0 m | | |
| 28. | Nearest metalled road from site | 0.70 km | | |
| 29. | Water Requirement Details | PURPOSE | | |
| | | Drinking | - 0.47 KLD | |
| | | Suppression of dust | - 8.4 KLD | |
| | | Plantation | - 0.32 KLD | |
| | | Others (if any) | - 0.00 KLD | |
| | | Total | - 9.20 KLD | |
| 30. | Name of QCI Accredited Consultant with QCI No and period of validity. | Paramarsh Servicing Environment and development NABET/EIA/1821 RA 0120, Valid till – 19/10/2021 | | |
| 31. | Any litigation pending against the project or land in any court | No | | |
| 32. | Details of 500 m Cluster Certificate verified by Mining Officer | Letter No – 3094/Khanij/2020-21 dated 14/09/2021 | | |
| 33. | Details of Lease Area in approved DSR | Serial no. 241, Page no.35 | | |
| 34. | Project Cost | 1.55 Crore/year | | |
| 35. | Proposed CER cost | 3.10 lacs/annum | | |
| 36. | Proposed EMP cost | 12.14 lacs/annum | | |
| 37. | Length and breadth of Haul Road | Length – 0.70 km, Breadth – 6.00 m | | |
| 38. | No. of Trees to be Planted | 320 | | |

5. The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
6. This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.

7. The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
8. There is no litigation pending in any court regarding this project.
9. The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

RESOLUTION AGAINST AGENDA NO-05

The committee discussed the matter and recommended grant of environmental clearance for the project proposal along with general and specific conditions as annexed at Annexure-1 to these minutes. The committee also stipulated the following specific conditions:

1. During the submission of 6 monthly compliance reports, the project proponent should make sure that the periodically taken site photographs should also be annexed along with the compliance report.
 2. Preference should be given to indigenous local species as per the consultation of the local district Forest Officer.
 3. The maximum height of the bench should be 06 meters and the width of the bench should be at least twice the height of the bench as per the mine plan approval letter by DGM, U.P
 4. In case the blasting is proposed during a mining operation, the project proponent needs to assess its impact on the displacement of human beings/wild animals/birds/other species, and the suitable measures proposed and taken for their rehabilitation and resettlement need to be clearly described in first 6 monthly compliance report.
 5. The mining plan approved by the Dept. of Mines and Geology, Uttar Pradesh shall be strictly implemented and shall not be operated beyond the validity period.
 6. The project proponent shall submit a final mine closure plan/Exit protocol for rehabilitation of mined-out land to match its surrounding land use 3years before the closure of the mine to SEIAA, UP and Department of Mines and Geology, UP for approval. The project proponent shall ensure the implementation of the approved plan under the supervision of the Dept. of Mines and Geology.
 7. The project proponent shall plan and implement collection drain and siltation basins of adequate size to arrest the silt and sediment flow from the quarry area. The surface runoff rainwater harvesting and other water conservation measures on a long-term basis are to be taken in consultation with the Central/State Groundwater Board. The water so collected should be utilized for watering the haulage area, roads, and green belt development, etc.
 8. The project proponent shall take all suitable measures to prevent pollution of groundwater and nearby water bodies in consultation with the State Pollution Control Board and consent to operate (if applicable) should be obtained from the State Pollution Control Board before the start of production from the mine.
 9. Link Road from the quarry site to the main road shall be constructed as an all-weather road with blacktopping and maintained by the project proponent.
 10. Vehicular emissions should be kept under control and regularly monitored. Suitable measures shall be taken for proper maintenance of vehicles used in a quarry operation and transportation.
 11. The project proponent should explore the possibilities of rainwater harvesting.
6. **Stone Mining at Gata No.- 989, Khand No.-06, Village- Makarbai, Tehsil & District-Mahoba., Shri Dinesh Kumar Mishra., Area -1.619 ha. File No. 6529/6162/Proposal No. SIA/UP/MIN/67075/2021**

RESOLUTION AGAINST AGENDA NO-06

On the request of project proponent/consultant the case was deferred. The committee also directed to take up this case in the first or second week of October, 2021.

7. **Sand/Morrum Mining from Dhasan River Bed at Khand No.-05, Village-Tolakhangaran, Tehsil- Rath, Hamirpur., Shri Sagar Parecha, Area: 13 ha. File No. 6532/5767/Proposal No. SIA/UP/MIN/ 67139/2020**

RESOLUTION AGAINST AGENDA NO-07

The project proponent/consultant did not appear. The committee discussed and deliberated that project file should be closed and be opened only after request from the project proponent. The file shall not be treated as pending at SEAC. The matter will be discussed only after submission of online request on prescribed online portal.

8. **Stone Mining at Gata No.- 989, Khand No.-08, Village- Makarbai, Tehsil & District-Mahoba, U.P. Smt. Malti Mishra , Area -1.619 ha. File No. 6533/6163/Proposal No. SIA/UP/MIN/ 66961/2021**

RESOLUTION AGAINST AGENDA NO-08

On the request of project proponent/consultant the case was deferred. The committee also directed to take up this case in the first or second week of October, 2021.

9. **Stone Mining at Gata No.- 989, Khand No.-20, Village- Makarbai, District-Mahoba, U.P. Shri Mohammad Mateen Khan, Area -0.809 ha. File No. 6534/6172/Proposal No. SIA/UP/MIN/ 67047/2021**

RESOLUTION AGAINST AGENDA NO-09

On the request of project proponent/consultant the case was deferred. The committee also directed to take up this case in the first or second week of October, 2021.

10. **Granite (Khanda, Gitti & Boulders & Pahadi Red Morrum)" at Gata No.- 2131/08, Village-Raulikalyanpur, Tehsil- Karwi, Chitrakoot, U.P. Shri Rahul Yadav, Area-4.0481 ha). File No. 6544/5676/Proposal No. SIA/UP/MIN/ 67307/2020**

RESOLUTION AGAINST AGENDA NO-10

On the request of project proponent/consultant the case was deferred. The committee also directed to take up this case in the first or second week of October, 2021.

Matter with the permission of Chairman

11. **Sand Mining at Gata No.-03mi, Khand No.-03, Village- Gogaon, Tehsil-Sadar, District-Mirzapur., Shri Prashant Maurya, Area: 5.0 ha File No. 6308 Proposal No. SIA/UP/MIN/ 63505/2021**

The noted that the case was considered in 548th SEAC-1 meeting dated 16-08-2021 wherein the committee deliberated that "Project Proponent/Consultant sent the document to all the members of SEAC-1 on 14-08-2021, while the last date to circulate the documents as per the agenda was 13-08-2021; this shows a complete disregard by the Project Proponent/Consultant towards the committee

Minutes of 574th SEAC-1 Meeting Dated 23/09/2021

(Chairman/Members). The committee took the note of the matter very seriously and decided to defer the matter for the next meeting.”

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Environmental Research and Analysis. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The Terms of References are sought for Sand Mining at Gata No.-03mi, Khand No.-03, Village-Gogaon, Tehsil-Sadar, District- Mirzapur., Shri Prashant Maurya, Area: 5.0 ha

2. Salient features of the project as submitted by the project proponent:

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| 1. On-line proposal No. | SIA/UP/MIN/63505/2021 | | |
| 2. File No. allotted by SEIAA, U.P | 6308 | | |
| 3. Name of Proponent | Shri Prashant Maurya S/o Shri Vinod Kumar Maurya | | |
| 4. Full correspondence address of proponent and mobile no. | R/o- Sundar Ghat, Mahuarua, Mirzapur Uttar Pradesh | | |
| 5. Name of Project | Sand Mining Project | | |
| 6. Project location (Plot/Khasra/Gata No.) | Gata No. 03mi Khand No.-03 | | |
| 7. Name of River | River Ganga | | |
| 8. Name of Village | Gogaon | | |
| 9. Tehsil | Sadar | | |
| 10. District | Mirzapur (U.P.) | | |
| 11. Name of Minor Mineral | Sand Mining Project | | |
| 12. Sanctioned Lease Area (in Ha.) | 5.0 Ha. | | |
| 13. Mineable Area (in Ha.) | 4.3612 Ha. (Safety Margin 0. 6388 Ha.) | | |
| 14. Zero level mRL | NA | | |
| 15. Max. & Min mrl within lease area | Maximum & Minimum mRL is 75.5 & 69.5 mRL respectively. | | |
| 16. Pillar Coordinates (Verified by DMO) | Pillar | Latitude(N) | Longitude(E) |
| | A | 25°13'03.50"N | 82°15'13.70"E |
| | B | 25°12'57.90"N | 82°15'18.80"E |
| | C | 25°12'52.40"N | 82°15'11.80"E |
| | D | 25°12'58.40"N | 82°15'07.50"E |
| 17. Total Geological Reserves | 1,95,772 m ³ | | |
| 18. Sanction Quantity as per LOI | 1,00,000 m ³ per year as per LOI | | |
| 19. Total Proposed Production (in five year) | 5,00,000 m ³ in five year | | |
| 20. Proposed Production/year | 1,00,000 m ³ per year | | |
| 21. Sanctioned Period of Mine lease | 5 Years | | |
| 22. Production of mine/day | 400 m ³ /day | | |
| 23. Method of Mining | Open cast, Manual, semi mechanized | | |
| 24. No. of working days | 250 | | |
| 25. Working hours/day | 8 hours/day | | |
| 26. No. Of workers | 40 | | |
| 27. No. Of vehicles movement/day | 33-40 Vehicles movement/day | | |
| 28. Type of Land | Government Land | | |
| 29. Ultimate Depth of Mining | 3.0 m | | |
| 30. Nearest metalled road from site | NH-76 is 6.83 km towards South direction from the project site. | | |
| 31. Water Requirement | PURPOSE | REQUIREMENT (KLD) | |

Minutes of 574th SEAC-1 Meeting Dated 23/09/2021

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| | Drinking water | 0.50 KLD |
| | Dust suppression | 6.168 KLD |
| | Plantation | 0.15 KLD |
| | Others (if any) | - |
| | Total | 6.82 KLD (Approx) |
| 32. Name of QCI Accredited Consultant with QCI No And period of validity. | Environmental Research and Analysis, Lucknow (U.P) Certificate No. NABET/ EIA/ 1922/RA 0200 Valid up to 30 Dec, 2022 | |
| 33. Any litigation pending against the project or land in any court | No | |
| 34. Details of 500 m Cluster Map & certificate issued by Mining Officer | Letter No. 1789/ KHANIJ/K.SA./2020-21 Date- 12/02/2021 | |
| 35. Details of Lease Area in approved DSR | Page No- 19 Sr. No- 3 | |
| 36. Proposed EMP cost | Rs. 25,17,315/- | |
| 37. Proposed Total Project cost | Rs. 82,00,000 /- | |
| 38. Length and breadth of Haul Road | 257m length and 6.0 m width | |
| 39. No. of Trees to be Planted | 25 | |

3. The mining would be restricted to the unsaturated zone only above the phreatic water table and will not intersect the groundwater table at any point in time.
4. The mining operation will not be carried out in the safety zone of any bridge or embankment or eco-fragile zone such as the habitat of any wild fauna.
5. There is no litigation pending in any court regarding this project.
6. The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

RESOLUTION AGAINST AGENDA NO-11

The remaining committee discussed the matter and recommended to issue the terms of reference (ToR) for the preparation of EIA as annexed at annexure-2. The committee also stipulated the following additional ToR:

1. The project proponent/Consultant should identify the core & buffer zone (2.5km) of the mining site

Nodal SEAC-1

(Dr. Ajai Mishra)
Member

(Om Prakash Srivastava)
Member

(Dr. Brij Bihari Awasthi)
Member

(Umesh Chandra Sharma)
Member

(Dr. Ratan Kar)
Member

(Rajive Kumar)
Chairman

General and Specific Conditions for Gitti, Patthar& Boulder Mining Projects: -

A. General Conditions:

1. This environmental clearance is subject to allotment of mining lease in favour of project proponent by District Administration/Mining Department.
2. Forest clearance shall be taken by the proponent as necessary under the law.
3. Any addition of the mining area, change of Khasra numbers, enhancement of capacity, change in mining technology, modernization, and scope of working shall again require prior environmental clearance as per EIA notification, 2006.
4. No change in the calendar plan including excavation, the quantum of mineral and waste shall be made.
5. Mining will be carried out as per the approved mining plan. In case of any violation of the mining plan, the Environmental Clearance given by SEIAA will stand cancelled.
6. Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for RSPM, SPM, SO₂, NO_x monitoring. The location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. The monitored data for criteria pollutants shall be regularly uploaded on the company's website and also displayed on the website.
7. Data on ambient air quality (RPM, SPM, SO₂, NO_x) should be regularly submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six months.
8. Ambient air quality at the boundary of the mine premises shall conform to the norms prescribed in MoEF notification no. GSR/826(E) dated 16.11.09.
9. Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading, and at transfer points shall be provided and properly maintained.
10. Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with earplugs/muffs and health records of the workers shall be maintained.
11. Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease traps shall be installed before the discharge of workshop effluents.
12. Personnel working in areas shall be provided with protective respiratory devices like masks and they shall also be imparted adequate training and information on safety and health aspects.
13. Special measures shall be adopted to prevent the nearby settlements from the impacts of mining activities.
14. The transportation of the materials shall be limited to the day hours' time only.
15. Provision shall be made for housing the laborers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche, etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
16. A separate Environmental Management Cell with suitably qualified personnel shall be setup under the control of a Senior Executive, who will report directly to the Head of the Organization.
17. The Project Proponent shall inform the Integrated Regional Office, MoEF&CC, GoI, Lucknow and State Pollution Control Board regarding the date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

18. The funds earmarked for environmental protection measures shall be kept in a separate account and shall not be diverted for other purposes. The year-wise expenditure shall be reported to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and State Pollution Control Board
19. The Integrated Regional Office, MoEF&CC, GoI, Lucknow and State Pollution Control Board shall monitor compliance with the stipulated conditions. A complete set of documents including Environment Impact Assessment Report, Environmental Management Plan, Public hearing, and other documents information should be given to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and State Pollution Control Board
20. A copy of the environmental clearance shall be submitted by the Project Proponent to the Heads of the Local Bodies, Panchayat, and Municipal Bodies as applicable in the matter.
21. The Project Proponent shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Level Environment Impact Assessment Authority (SEIAA).
22. The Project Proponent has to submit a regular half-yearly compliance report of the stipulated prior environmental clearance terms and conditions in hard and soft copy to the SEIAA, U.P. on 1st June and 1st December of each calendar year.
23. The SEIAA may alter/modify the above conditions or stipulate any further condition in the interest of environmental protection.
24. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

B. Specific Conditions:

1. At the time of operation, the project proponent will comply with all the guidelines issued by the Government of India/State Govt./District Administration related to Covid-19.
2. This environmental clearance does not create or verify any claim of the applicant on the proposed site/activity.
3. In case it has been found that the E.C. obtained by providing incorrect information, submitting that the distance between the two adjoining mines is greater than 500mt. and the area is less than 05ha, but factually the distance is less than 500 mt, and the mine is located in the cluster of area equal to or more than 05ha, the E.C issued will stand revoked.
4. This environmental clearance shall be subject to a valid lease in favor of the project proponent for the proposed mining proposals. In case, the project proponent does not have a valid lease, this environmental clearance shall automatically become null and void.
5. The Environmental clearance will be co-terminus with the mining lease period/Mining Plan. The Mining plan approved by the Dept. of Mines and Geology shall be strictly implemented and shall not be operated beyond the validity period.
6. Explosive cannot be stored on the site. The Project proponent shall take approval from Chief Controller of Explosive, if applicable for use or storage of explosive or any such materials.
7. A comprehensive EIA including mining areas within 15 K.M. to assess the impact of the mining activity on the surrounding area shall be undertaken and a report submitted to this Authority within one year.
8. No two pits shall be simultaneously worked i.e. before the first is exhausted and reclamation work completed, no mineral bearing area shall be worked.
9. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation work in the exhausted pit shall be completed to ensure that reclamation, forest cover, and vegetation are visible during the first year of mining operations in the next pit. This process

will follow till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any new ore-bearing area is worked for expansion.

10. An adequate buffer zone shall be maintained between two consecutive mineral-bearing deposits.
11. The sprinkling of water on haul roads to control dust will be ensured by the project proponent.
12. Green belt development shall be carried out considering CPCB guidelines including the selection of plant species and in consultation with the local DFO / Agriculture Department. Herbs and shrubs shall also form a part of the afforestation programme besides tree plantation. The company shall involve local people in the plantation programme. Details of year-wise afforestation programme including rehabilitation of mined-out area shall be submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow every year.
13. Blast vibrations study shall be conducted and an observation report submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and UPPCB within six months. The report shall also include measures for the prevention of blasting associated impact on nearby houses and agricultural fields.
14. Controlled blasting techniques with sequential blasting shall be adopted. The blasting shall be carried out in the daytime only. The project proponent shall ensure prevention of displacement of human beings/wild animals/birds etc. and in case any such displacement is caused due to blasting/mining operation by any chance the project proponent shall take suitable measures for their rehabilitation and resettlement.
15. Appropriate arrangement for shelter and drinking water for the mining workers has to be ensured at the mining site.
16. Maintenance of village roads used for transportation of minerals is to be done by the company regularly at its own expenses. The link roads from mining area to main road shall be constructed as all-weather road with black topping and maintained by the project proponent.
17. The surface runoff rain water harvesting/rain water recharge and water conservation measures will be taken by project proponent in consultation with central /State ground water Board. The project proponent shall plan and implement collection drain and siltation basins of adequate size to arrest the silt and sediment flows from the mining area. The supernatant of the siltation basin and rain water harvested water shall be utilized for watering the haulage area, roads and green belt development etc.
18. Status of implementation shall be submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and UP Pollution Control Board within six months and thereafter every year from the next consequent year.
19. The self-environmental audit shall be conducted annually. Every three years third-party environmental audit shall be carried out.
20. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geotextile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
21. Trenches/garland drains shall be constructed at foot of dumps and coco filters installed at regular intervals to arrest silt from being carried to water bodies. An adequate number of Check Dams and Gully Plugs shall be constructed across seasonal/perennial nallahs if any flowing through the ML area and silts arrested. De silting at regular intervals shall be carried out.
22. Garland drain of appropriate size, gradient, and length shall be constructed for both mine pit and waste dump and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide an adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de silted at regular intervals.
23. Ground and surface water, if any in and near the core zone (within 5.0 km of the lease) shall be regularly monitored for contamination and depletion due to mining activity and records maintained.

The monitoring data shall be submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and U.P. Pollution Control Board regularly. Further, monitoring points shall be located between the mine, and drainage in the direction of flow of groundwater shall be set up and records maintained.

24. Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and U.P. Pollution Control Board regularly.
25. Baseline data for ambient air quality shall be generated and maintained and RSPM level in ambient air in the nearby human habitation (villages) shall also be monitored along with other parameters.
26. Corporate Environmental Responsibility (CER) shall be by the project proponent and the details of the various heads of expenditure are to be submitted as per the guidelines provided in the recent CER notification No. 22-65/2017-IA.III dated 01/05/2018. Work to be executed with the installation of five hand pumps for drinking water, solar light in villages of streets, construction of two numbers of toilets at the primary school with name displayed and address and details of the beneficiary and gram Pradhan along with phone number, photographs should be submitted to Directorate as well as to the District Magistrate / Chief Development officers.
27. Transportation of minerals shall be done by covering the trucks with tarpaulin or other suitable mechanisms so that no spillage of mineral/dust takes place.
28. Occupational health and safety measures for the workers including identification of work-related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust, etc. shall be carried out. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including the health records of the workers. Awareness programmes for workers on the impact of mining on their health and precautionary measures like the use of personal protective equipment etc. shall be carried out periodically. A review of the impact of various health measures shall be conducted followed by follow-up action wherever required.
29. The project proponent will ensure for employing local people as per requirement, necessary protection measures around the mine pit and waste dump, and garland drain around the mine pit and waste dump.
30. Topsoil / solid waste shall be stacked properly with proper slope and adequate safeguards and shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of the mined-out area. Topsoil shall be separately stacked for utilization later for reclamation and shall not be stacked along with overburden.
31. Overburden (OB) shall be stacked at the earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 20 m, each stage shall preferably be of a maximum of 10 m and the overall slope of the dump shall not exceed 35°. The OB dump shall be backfilled. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface runoff.
32. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Regional Office, Ministry of Environment & Forests, GoI, Lucknow, and U.P. Pollution Control Board on a six-monthly basis.
33. The slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by the Indian Bureau of Mines.
34. Permission for the abstraction of groundwater shall be taken from Central Ground Water Board. Regular monitoring of ground and surface water sources for level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year i.e., premonsoon (April/May), monsoon (August), post-monsoon (November), and winter (January), and the data thus collected shall be regularly sent to MoEF&CC, Central Ground Water Authority, and Regional Director, Central Ground Water Board.

35. The wastewater from the mine shall be treated to conform to the prescribed standards before discharging into the natural stream. The discharged water from the Tailing Dam, if any shall be regularly monitored and report submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow, Central Pollution Control Board, and the State Pollution Control Board.
36. Hydrogeological study of the area shall be reviewed by the project proponent annually. In case the adverse effect on groundwater quality and quantity is observed mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on groundwater is implemented.
37. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of minerals and others shall have valid permissions as prescribed under Central Motor Vehicle Rules, 1989 and its amendments. The vehicles transporting minerals shall be covered with a tarpaulin or other suitable enclosures so that no dust particles / fine matters escape during the period of transportation. No overloading of minerals for transportation shall be committed. The trucks transporting minerals shall not pass through the wildlife sanctuary if any in the study area.
38. Prior permission from the Competent Authority shall be obtained for the extraction of groundwater if any.
39. A final mine closure plan, along with details of Corpus Fund, shall be submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and U.P. Pollution Control Board 5 years in advance of final mine closure for approval.
40. Project Proponent shall explore the possibility of using solar energy where ever possible.
41. Commitment towards CER has to be followed strictly.
42. Regular health checkup record of the mineworkers has to be maintained at the site in a proper register. It should be made available for inspection whenever asked.
43. Project Proponent has to strictly follow the direction/guidelines issued by MoEF&CC, CPCB, and other Govt. Agencies from time to time.
44. The blasting will be done only after getting permission from the Mining Department.

Annexure-2

Standard Terms of Reference for the Mining Project prescribed by MoEF&CC, GoI

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land

area, distance from mine lease, its land use, R&R issues, if any, should be given.

- 12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in

the Report.

- 21) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- 22) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 23) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 24) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 25) Description of water conservation measures proposed to be adopted in the Project should be given.
- 26) Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater.
- 29) Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 30) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 31) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 32) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with

emphasis on local and native species and the species which are tolerant to pollution.

- 33) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 34) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 35) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 36) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 37) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 38) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 39) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 40) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 41) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 42) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 43) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 44) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 45) Besides the above, the below mentioned general points are also to be followed:-
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English

translation should be provided.

- f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
- g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include: (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.