



Himachal Pradesh State Expert Appraisal Committee

SEIAA, Himachal Pradesh

Ministry of Environment Forest & Climate Change, Government of India,

at Department of Environment Science & Technology,

Paryavaran Bhawan, Near US Club, Shimla-1

Ph: 0177-2656559, 2659608, Fax: 2659609

No. HP SEAC/2008, 16-Vol-V

Dated: 17/9/2019

MINUTES OF THE 68th MEETING OF THE STATE EXPERT APPRAISAL COMMITTEE HELD IN CONFERENCE HALL, DEPARTMENT OF ENVIRONMENT, SCIENCE & TECHNOLOGY, SHIMLA, ON 17.09.2019

The 68th meeting of State Expert Appraisal Committee for appraisal of the project proposals received for Environmental Clearance was held on 17/9/2019 in the Conference Hall of Department of Environment, Science & Technology, Shimla. The following were present in the meeting:

Sr.	Name	Designation	17/9/2019
1.	Dr. Ajai Bhandari, IAS (Retd.)	Chairman	✓
2.	Dr. Kulraj Singh Kapoor	Member	-
3.	Sh. Arun Kumar Sharma	Member	✓
4.	Dr. Kartar Singh Verma	Member	✓
5.	Dr. Bhupinder S. Marh	Member	✓
6.	Sh. A. N. Gautam	Member	✓
7.	Pr. Scientific Officer (Env.)	Secretary	✓

The Deliberations were started with permission of Chair.

ITEM NO. 1:

The minutes of the 67th meeting of SEAC held from 3rd September, 2019 discussed and confirmed.

ITEM NO. 2

2.1 Smt. Ashlata Devi, W/o Sh. Nand Lal, Prop. M/s Raj Stone Crusher, Village-Majhot, P.O. Ropa, Tehsil & District-Hamirpur, H.P.

Brief outline of the project:

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|----|--|--|
| a) | Proposal No. | SIA/HP/MIN/35682/2019 dated 04.05.2019
HP SEIAA/2019-626 |
| b) | Project type | Extraction of Stone & Bajri. |
| c) | Project Location | Khasra number 1407/1 (11-12 kanals), 1521/1408 (8-02 kanals) & 1523/1408 (22-14 kanals) falling in Mauza-Sapahal & Mohal-Panoh Tehsil-Sujanpur & District-Hamirpur, H.P. |
| d) | Jamabandi | Jamabandi for the year 2011-2012 |
| e) | Land status | Self owned & leased land. |
| f) | Capacity | 28,600 Tonnes per year. |
| g) | Mining Area | 42-08 kanals, 2.1448 ha (Private land) |
| h) | Leases with in 500 meter from the periphery of the area applied. | One mining lease exist within 500 meters measuring 27-16 kanals. |
| i) | Letter of Intent | Extension of LOI issued on 17.08.2019, (valid from 07.07.2019 to 06.07.2020) |
| j) | EMP Cost | Capital Cost: Rs. 0.80 lakhs; Recurring cost: Rs. 1.00 lakhs |
| k) | CER cost | Capital Cost: Rs. 2.00 lakhs. |

The online proposal for granting Environment Clearance submitted on dated 4/5/2019 accepted by SEIAA secretariat on dated 9/5/19 and forwarded to SEAC secretariat. The hard copy submitted by the PP on dated 22/7/2019 for technical appraisal by the SEAC.

The proposed project is extraction of Stone & Bajri. The proposed project is open case semi-mechanized mining.

The project proponent has submitted hard copy of application on 22.07.2019 which was submitted through online portal on dated 04.05.2019. The project proponent has submitted Form-1, buffer maps, letter of Intent for mining of minerals issued by Director of Industries dated 17.08.2019, (valid for one year), letter from Mining Officer regarding available mining leases with in 500 meter radius dated 24.07.2015, certificate from H.P. Forest Department dated 23.07.2015 regarding list of flora and fauna of the concerned area, list of species which are endemic to the locations, approved mining plan issued by Industry Department dated 11.08.2015, permanent registration by State Geologist dated 06.03.2018, NOC from Gram Panchayat Panoh dated 31.08.2019, cross section of the area, base line environmental data of air quality, water quality and noise levels with photograph.

The project proponent has submitted the documents to the observations of HP SEIAA Secretariat vide letter number nil dated 22.08.2019 & 09.09.2019, accordingly the case was placed before SEAC for appraisal.

The case was appraised by SEAC in its 68th Meeting. After deliberating on the information submitted and considering the facts placed before the committee, the SEAC decided to list the case in next meeting after compliance to the following conditions:

- 1) The project proponent shall resubmit the correct KML file of the mining site.
- 2) The Committee will conduct field visit to inspect the site to verify the facts of the proposed mining area and submit its report for further decision whether the mining site is hill or river bed.
- 3) The project proponent shall submit 500 meter certificate duly countersigned by the state Geologist as per requirement.
- 4) The project proponent shall revise/increase the cost EMP as per requirement to the tune of Rs. 8.50 lakhs for 5 years with breakup with the consent of the school for which activities under CER is proposed.
- 5) The project proponent shall provide one Pattal & Duna making machines as part of CER activity adding cost of Rs. 1.00 lakhs. The PP shall also include cost of Rs. 15000/- per year for imparting trainings for operating the machine to self help groups.
- 6) The project proponent shall submit the legal source of water supply.
- 7) The project proponent shall submit properly demarcated ultimate pit limit under the approved mining plan.
- 8) The project proponent shall submit clearly marked approach road with proper grade.

2.2 Sh. Ishwar Rohal, S/o Sh. Ram Krishan Rohal, Village-Goro, P.O. Shoghi, Tehsil & District-Shimla, H.P.

Brief outline of the project:

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|---------------------|---|
| a) Proposal No. | SIA/HP/MIN/40331/1900 dated 31.07.2019
HP SEIAA/2019-648 |
| b) Project type | Extraction of stone. |
| c) Project Location | Khasra number 4/10/2 falling in Mauza -Tikari, Tehsil & District-Shimla, H.P. |
| d) Jamabandi | Jamabandi for the year 2011-2012 |
| e) Land Status | Leased land (Agreement attached) |
| f) Capacity | 13,335 Tonnes per year. |

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|----|--|---|
| g) | Mining Area | 0-5798 ha, (Private land, hill slope) |
| h) | Leases with in 500 meter from the periphery of the area applied. | No mining leases exist within 500 meters. |
| i) | Letter of Intent | LOI issued on 11.05.2018, extension of LOI issued and (valid from 10.05.2019 to 09.05.2020) |
| j) | EMP Cost | Capital Cost: Rs. 2.15 lakhs; Recurring cost: Rs. 1.85 lakhs |
| k) | CER cost | Capital Cost: Rs. 1.00 lakhs |

The online proposal for granting Environment Clearance submitted on dated 31/7/2019 accepted by SEIAA secretariat on dated 30/08/19 and forwarded to SEAC secretariat. The hard copy submitted by the PP on dated 19/08/2019 for technical appraisal by the SEAC.

The proposed project is extraction of Stone. As proposed the lease area is part of hill slope. As proposed the mining will be manual as well as semi mechanized in which the mined material will be collected in its existing form.

The project proponent has submitted hard copy of application on 19.08.2019 which was submitted through online portal on dated 31.07.2019. The project proponent has submitted Form-1, buffer maps, geological plans, letter of Intent for mining of minerals issued by Director of Industries dated 11.05.2018, (extension of LOI issued and is valid from 10.05.2019 to 09.05.2020), jamanbandi for the year 2011-2012, letter from Mining Officer regarding available mining leases with in 500 meter radius dated 25.03.2019, joint inspection report dated 15.03.2018, approved mining plan issued by Industry Department dated 30.11.2018, certificate from H.P. Forest Department dated 06.08.2018 regarding list of flora and fauna of the concerned area, NOC from Gram Panchayat Mulbari Devnagar dated 07.01.2018, NOC from I&PH Department, affidavit regarding CER activities, base line environmental data of air quality, water quality and noise levels along with site photographs.

The project proponent has submitted the documents to the observations of HP SEIAA Secretariat vide letter number nil dated 11.09.2019, accordingly the case was placed before SEAC for further appraisal.

The case was appraised by SEAC in its 68th Meeting. After deliberating on the information submitted and considering the facts placed before the committee, the SEAC decided to list the case in next meeting after compliance to the following conditions:

- 1) The Committee will conduct field visit to inspect the site to verify the facts of the proposed mining area and submit its report in order to ascertain physical situation of site viz-a-viz contents of power point presentation.
- 2) The project proponent shall submit the revised and detailed post reclamation for the mining area.
- 3) The project proponent shall submit muck management plan with Khasra numbers.
- 4) The project proponent shall provide one Pattal & Duna making machines as part of CER activity adding cost of Rs. 1.00 lakhs. The PP shall also include cost of Rs. 15000/- per year for imparting trainings for operating the machine to self help groups.
- 5) The project proponent shall provide water filter/ purification system of required capacity to Government S.S. School Devnagar and for this purpose an amount of Rs. 25,000/- shall be provided und CER.
- 6) The project proponent shall adopt flood management with bio-engineering techniques.

2.3 Sh. Satish Kumar & Sh. Kamal Kumar Sharma, M/s Mahavir stone Crusher, Village & Post Office-Takarla, Tehsil-Amb, District-Una, Himachal Pradesh.

Brief outline of the project:

- a) Proposal No. SIA/HP/MIN/41167/2019 dated 07.09.2019

	HP SEIAA/2019-656
b) Project type	Extraction/collection of Sand, Stone & Bajri
c) Project Location	Khasra number 2156/260, 261, 2155/260, 284, 285, 286, 287, 288, 349, 350, 351, 352, 376 & 379 falling in Mauza & Mohal-Saluni, Tehsil-Amb, District-Una, H.P.
d) Jamabandi	Jamabandi for the year 2013-2014
e) Land Status	Leased land
f) Capacity	3, 97,575 MT for the leased period of five years.
g) Mining Area	3-72-96 hectare, Pvt. Land.
h) Leases with in 500 meter from the periphery of the area applied.	No mining leases exist within 500 meters.
i) Letter of Intent	LOI issued on 17.09.2018, valid for one year (valid up to 16.09.2019)
j) EMP Cost	Capital Cost: Rs. 1.0 lakhs; Recurring cost: Rs. 0.55 lakhs
k) CER cost	Capital Cost: Rs. 2.75 lakhs; Recurring cost: Rs. 0.70 lakhs

The online proposal for granting Environment Clearance submitted on dated 14/8/2019 accepted by SEIAA secretariat on dated 11/09/19 and forwarded to SEAC secretariat. The hard copy submitted by the PP on dated 07/09/2019 for technical appraisal by the SEAC.

As proposed project is river bed mining of Sand, Stone and Bajri from Swan river a tributary of Satluj river.

The Proposed project has submitted report on 07.09.2019 and online on dated 07.09.2019 The project proponent has submitted form-1, pre-feasibility report, buffer maps, letter of Intent from State Geologist dated 17.09.2018, approved Mining Plan by State Geologist dated 25.07.2019, 500 meter distance certificate from concerned Mining Officer dated 03.09.2019, joint inspection report dated 12.07.2017, NOC from Gram Panchayat Dhusara dated 09.05.2016, jamabandi for the year 2013-2014, letter from Forest Range Officer dated 20.07.2017, base line environmental data of air quality, water quality and noise levels along with site photographs.

The case was appraised by SEAC in its 68th Meeting. After deliberating on the information submitted and considering the facts placed before the committee, the SEAC decided to list the case in next meeting after compliance to the following conditions:

- 1) The project proponent shall submit the valid letter of intent.
- 2) The Committee will conduct field visit to inspect the site to verify the facts of the proposed mining area and submit its report for further decision.
- 3) The project proponent shall submit silt/muck management plan with Khasra numbers.
- 4) The project proponent shall submit original copy of Jamabandi/ revenue record with tatima.
- 5) The project proponent shall submit the site photographs depicting boundary pillars and geo coordinates.
- 6) The project proponent shall submit recent NOC of the gram panchayat.
- 7) The project proponent shall resubmit cross section map.
- 8) The project proponent shall submit the certificate of legal source of water.
- 9) The project proponent shall submit the certificate from the DFO indicating the list of flora & fauna of the mining area.
- 10) The project proponent shall submit the revised EMP with costs raised to 10.50 lakhs for different components for five years.

- 11) The project proponent shall submit the proper plantation plan with the consent of the authority (school & Panchayat) with proper demarcation of khasra numbers where plantation has been proposed.
- 12) The project proponent shall provide one Pattal & Duna making machines as part of CER activity adding cost of Rs. 1.00 lakhs. The PP shall also include cost of Rs. 15000/- per year for imparting trainings for operating the machine to self help groups.
- 13) The project proponent shall submit the clarification regarding ambiguity in the mining plan w.r.t. calculation of mining reserve, man power, labour, total truck/trips used for carrying out the mining material etc.

2.4 Sh. Randeep Singh, S/o Sh. Gurbaksh Singh, Village-Masruwala, PO-Dulmana, Tehsil & District-Hanumangarh, Rajasthan. Pin-335513.

Brief outline of the project:

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| a) | Proposal No. | SIA/HP/MIN/30463/2018 (for TOR)
SIA/HP/MIN/40997/2018 (for EC)
HP SEIAA/2018-598 |
| b) | Project type | Extraction of Sand, Stone & Bajri. |
| c) | Project Location | Khasra number 936 & 998 (Government land) falling in Mauza & Mohal-Bhangani of Tehsil-Paonta Sahib, District-Sirmour, H.P. |
| d) | Jamabandi | Jamabandi for the year 2015-2016 |
| e) | Land Status | Govt. land, (Forest land) |
| f) | Capacity | 7,97,676 TPA |
| g) | Mining Area | 13-2 Bighas (1-10-40 ha), 635.08 Bighas (53-56-40 ha)
having total mining area 54-66-80 ha |
| h) | Leases with in 500 meter from the periphery of the area applied. | One mining leases exist within 500 meters.
1. Guruwala having an area of 66-98-05 ha. |
| i) | Letter of Intent | LOI issued on 08.08.2016
(valid only for obtaining requisite clearance from competent authority) |
| j) | EMP Cost | Capital Cost: Rs. 33.0 lakhs; Recurring cost: Rs. 7.0 lakhs |
| k) | CER cost | Capital Cost: Rs. 5.20 lakhs; Recurring cost: Rs. 1.20 lakhs |

Online proposal for granting ToR was submitted on dated 22/12/2018 and accepted by the SEIAA secretariat on dated 08/01/2019 and forwarded to SEAC secretariat. The SEAC secretariat further accepted the proposal on dated 08/01/2019 for technical appraisal by the SEAC.

The proposed project is extraction of Sand, Stone & Bajri. As proposed the lease is situated in the Bhangani (Yamuna river). The case was transferred from MoEF&CC on dated 12.10.2018 to SEIAA as per the notification issued vide SO No. 3977 (E) dated 14th August, 2018 by MoEF&CC stating that the cases below 100 ha falls in Category-B project. Therefore, the project proponent has applied for TOR's.

The project proponent has submitted form-1, letter of Intent dated 08.08.2016, land revenue records, distance certificate from State Geologist dated 09.02.2017, letter from Village revenue Officer dated 19.01.2017, approved mining plan dated 30.01.2018, joint inspection report dated 16.10.2015, site photographs etc.

The case was appraised by the SEAC in 62nd Meeting, where in the Committee, approved the ToR proposed as per standard conditions laid down by the MoEF&CC and with the following additional ToRs:

- The project proponent shall also assess the air quality of the area using Air Quality Models.

- *The project proponent shall assess and provide comprehensive details of muck disposal in the final EIA/ EMP report.*
- *The project proponent shall provide details of labour, its management.*
- *The project proponent shall assess the erosion of river banks, details of bank to bank width, map the river course, bank plan, measurements for stabilization of river banks.*
- *The traffic/ vehicle flux assessment shall be included in the EIA/ EMP.*
- *The project proponent may use baseline data for EIA/ EMP reports from already formulated EIA/ EMP as per the provision of EIA notification 2006 with prior consent of the respective proponent and his undertaking to be submitted to the SEAC.*
- *The project proponent shall include plantation of Shorea robusta/ (maljhum/sal) species in the EIA/ EMP.*
- *The project proponent shall include provision to provide one bio-toilet & one patta making machine in village school and Panchayat respectively in the EIA/ EMP.*
- *The project proponent shall ensure to submit area of mining site in KML file format on e-mail id: eahpseiaa@gmail.com indicating online proposal number.*

Online proposal for granting Environment Clearance was submitted on dated 10/08/2019 and accepted by the SEIAA secretariat on dated 02/09/2019 and forwarded to SEAC secretariat. The SEAC secretariat further accepted the proposal for technical appraisal by the SEAC.

The project proponent vide letter no. nil dated 30.07.2019 submitted the final EIA/EMP report for further appraisal and approval for grant of Environment Clearance.

The case was appraised by SEAC in its 67th Meeting. The SEAC deliberated upon EIA/EMP report submitted by the project proponent and examined the proceedings of public hearing, video film. It was observed by the SEAC that the required process has been followed to complete the work, the action plan with budget provisions for different issues have been included in EIA report as per requirement. The PP made the presentation on EIA report and explained the point wise ToR and action taken thereof. The project proponent could not explain or place on record any document for substantiating the actions, reports, plan, prepared w.r.t. additional ToRs recommended by the SEAC for carrying out the EIA. The SEAC after deliberating observed that the case may be listed in the next meeting after compliance to the following conditions:

1. *The project proponent shall submit the muck disposal plan clearly showing the requisite land on map with Khasra number for safe disposal of the muck silt clay.*
2. *The project proponent shall submit the details of labour and its logistic arrangement on site viz. toilets, kitchen, health etc.*
3. *The project proponent shall submit the details, report w.r.t. erosion of river banks details of bank to bank width, bank stabilization.*
4. *The project proponent shall submit the detailed plantation plan depicting the land area earmarked for plantation purposes.*
5. *The project proponent shall also submit the water balance sheet.*
6. *The project proponent shall submit undertaking showing the location of septic tank-soak pit with khasra numbers.*

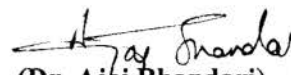
The project proponent has submitted the documents to the observations of HP SEIAA Secretariat vide letter number nil dated 07.09.2019, accordingly the case was placed before SEAC for further appraisal, during the appraisal the project proponent informed that for plantation work an amount of Rs. 1,25,58,700.00 have been deposited to the Forest Department, GoHP and they will carry out the plantation work in view of the plantation activities.

The case was appraised by SEAC in 68th Meeting. After deliberating on the information submitted and considering the facts placed before the committee, the SEAC recommended the case application for consideration of grant of environmental clearance by the SEIAA, subject to fulfillment of conditions annexed at Annexure-I with the following additional conditions:

- 1) The project proponent shall submit report w.r.t findings of the replenishment study of the mining area within one year of time from the operationalization of mining.
- 2) The project proponent shall provide two Pattal & Duna making machines as part of CER activity adding cost of Rs. 2.00 lakhs. The PP shall also include cost of Rs. 30000/- per year for imparting trainings for operating the machine to self help groups.
- 3) The project proponent shall verify the plantation work and submit the report to the office of HPSEIAA.

The meeting ended with the vote of thanks to the Chair.


Secretary,
HP SEAC


(Dr. Ajai Bhandari)
Chairman, HPSEAC

Endst. No.: SEAC 68th Meeting /2019-


Dated

17/9/2019

Copy to following for information and further necessary action please:

1. The Member Secretary, State Level Environment Impact Assessment Authority, Himachal Pradesh, Shimla-1.
2. Case files of all projects, Guard file.

Note: Minutes of the Meeting are being hosted on the official website of SEIAA and all concerned shall download it for taking further necessary actions relevant to their project.


Secretary
Himachal Pradesh State Expert Appraisal Committee,
Shimla, Himachal Pradesh.

Mining Projects

A. Statutory Compliance

- 1 This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- 2 The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- 3 The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- 4 This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- 5 This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- 6 Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- 7 The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- 8 The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- 9 The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled —Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease areal.
- 10 The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- 11 A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- 12 State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 13 The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 14 The Project Proponent shall inform the SEIAA for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

B. Air Quality Monitoring And Preservation

15. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO₂, CO₂ and SO₂ etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
16. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment's/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

C. Water quality monitoring and preservation

- 17 In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- 18 Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board & SEIAA
- 19 Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- 20 The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be

carried out four times in a year viz. pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Regional Office, MOEFCC, SEIAA, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

21. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
22. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC & SEIAA annually.
23. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
24. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC, SEIAA and State Pollution Control Board/Committee.

D. Noise and vibration monitoring and prevention

25. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
26. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
27. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

E. Mining plan

28. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the SEIAA, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
29. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the

Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change & SEIAA for record and verification.

30. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the concerned Regional Office, MoEFCC & SEIAA.

F. Land reclamation

31. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
32. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
33. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
34. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
35. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC & SEIAA.
36. Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
37. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
38. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

G. Transportation

39. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a bypass road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
40. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

H. Green Belt

41. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the SEIAA irrespective of the stipulation made in approved mine plan.
42. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
43. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
44. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
45. And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry & SEIAA

I. Public hearing and human health issues

46. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health

- check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office, SEIAA and DGMS on half-yearly basis.
47. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighbourhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
 48. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 × 14 inches and of good quality).
 49. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 - 24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC & SEIAA annually along with details of the relief and compensation paid to workers having above indications.
 50. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
 51. Project Proponent shall make provision for the housing for workers/labours or shall construct labour camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
 52. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry, SEIAA along with District Administration.

J. Corporate Environment Responsibility (CER)

53. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC & SEIAA annually along with audited statement.
54. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEFCC and its concerned Regional Office & SEIAA.

K. Miscellaneous

55. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEFCC & SEIAA
56. The Project Authorities should inform to the Regional Office & SEIAA regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
57. The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, SEIAA, Central Pollution Control Board and State Pollution Control Board.
58. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC & SEIAA.
59. The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) & competent Authority by furnishing the requisite data / information / mo.