

**MINUTES OF THE 125<sup>th</sup> MEETING OF GOA STATE ENVIRONMENT ASSESSMENT COMMITTEE HELD ON 23<sup>rd</sup> SEPTEMBER 2020 at 5.30 PM ONWARDS THROUGH VIDEO CONFERENCING.**

- 1. Application was received from M/s Nathurmal Eco Minerals Pvt Ltd, for environmental clearance to proposed mining of Minor Minerals - Dolomite and Calcium Bentonite at Survey No. 75/2 and Survey No 79 at Arvalem, Sanquelim, North Goa.**

The Project proponent made a presentation through Video conference.

Project Proponent stated that it is a registered MSME unit, made detailed presentation which is summarised as below:

1. The present application is for extraction of Minor Minerals - Dolomite and Calcium Bentonite at Survey No. 75/2 and Survey No 79 at Arvalem, Sanquelim, North Goa.
2. The method of extraction proposed is by open cast mining using excavator and tipper method. The area forms a part of the earlier lease granted for extraction of iron ore bearing TC Number 39 / 53 of which part area of 18-19Ha is proposed for extraction of Minor Minerals.
3. This area comprised a part of T/c 39/53 for Iron & Manganese Ores and had received Environmental Clearance under EIA 2006 from MOEF after due Public Hearing and ref E. C. No. J- 11015/63/2006-IA- II(M) on 16/4/2007 for an annual quantity of 73,500 tons per year and upon receiving extension of the lease also received environmental clearance under State Env Assessment Authority vide letter No. SEIAA - 3 -181 - 2010 / STE - DIR / 193.
4. This application to the SEAC is for the same quantity, working depth and mining method as the previous operator of TC No. 39/53.
5. Open Cast Mining will be done without resorting to Blasting as also will not puncture the water table.
6. In the event of any Iron Ore (Of above 45% Iron content) is encountered, same shall be extracted, stacked separately and declared to the Department of Mines & Geology, Govt of Goa and will be disposed of as per their instructions.
7. The normal Ore to Overburden Ratio in Goan mines operations is 1-part ore to 4-parts of overburden, but this shall be reduced since this ratio since we have identified these commercially exploitable minerals in the traditional overburden. The overburden is proposed to be stacked in survey number 75 /2 or 79 with an area of 20,000 sq mts for

stacking of overburden and will be clearly marked out in detail in the quarrying plan. The overburden can be utilized for backfilling of the quarry.

8. Plantation of local variety of trees will be carried out on overburden dump.
9. The proposal does not envisage any felling of tree as the extraction is proposed within the broken-up area of earlier iron ore mining lease
10. Annual production of 73,500 metric tonnes of mineral works out to 300 metric tonnes per day based on 250 working days per year.
11. On an average there will be 30 number of truck trips on daily basis and same will be covered with tarpaulin and wheel wash system and DMG registered trucks will be deployed.
12. Rain water harvesting will be practiced and the old mining pit used to harvest the rain water will also registered with the Water Resources Dept., Govt of Goa. Dust pollution will be mitigated by sprinkling water through tankers, for which water is available in the mining pit. This harvested water will be used for dust suppression by use of misting apparatus to prevent fugitive dust emissions, at the truck loading point, as also for spraying on the stockpile and on the haul roads. With appropriate mitigation being practiced, Project Proponent does not foresee any adverse impact on surrounding area. There will be no generation of waste water or hazardous waste from the operation of the quarry
13. Positive impact will be that it will provide employment at all levels - technical/ non-technical / accountant/ Engineers / etc. in the local area. All employment will be preferentially given to locals and also support via CSR to the local Panchayat, Govt Primary School, Sports Club, etc. as also appropriate Skill Development Activities to local youth via the tie up with ITI's and the Goa Group Vocational Training Centre.
14. Adequate Environmental Monitoring by authorized 3rd party monitoring organization to ensure strict compliance on Air quality, Water quality and Noise levels.
15. Quarrying plan will be submitted to DMG and copy to SEIAA/SEAC after approval of same by DMG.
16. Project Proponent does not envisage going below 25 mts below ground level over the next 10 years of operation.

17. After extraction it will be necessary to crush and screen the extraction to usable sizes. No beneficiation of extracted material will be undertaken.

**Decision:** The Committee after hearing detailed presentation and after detailed deliberation and discussion decided to recommend the proposed mining of Minor Minerals - Dolomite and Calcium Bentonite at Survey No. 75/2 and Survey No 79 at Arvalem, Sanquelim, North Goa for Environmental Clearance to Goa-SEIAA with following conditions:.

1. **Goa Mineral Concession (Amendment) Rules, 2012** notified by the Directorate of Mines and Geology (DMG) and published in Official Gazette Series-I, No. 24 dated 17<sup>th</sup> September 2012.
2. Submission of **approved mining plan** by the competent officer as per Sub-rule (7) as well as specific compliance to Sub-rules 7(A) to 7(D) of the above-referred Rules, as applicable.
3. Office Memorandum (O. M.) issued by the Ministry of Environment, Forest and Climate Change (MoEF & CC) dated 20<sup>th</sup> December 2013 regarding **High Level Working Group Report on Western Ghats** *vis-a-vis* compliance to the conditions mentioned therein w.r.t. activities prohibited in the identified Ecologically Sensitive Areas (ESAs).
4. Notification S. O. 733 (E) dated 10<sup>th</sup> March 2014 issued by the erstwhile Ministry of Environment and Forests (MoEF) and published in the Gazette of India ó Extraordinary, No. 624, Part-II, Section 3, Sub-section (ii) dated 10<sup>th</sup> March 2014 **specifying the list of villages categorized as Ecologically Sensitive Areas (ESAs) in the State of Goa** (i.e. 1,461 sq.kms.) *vis-a-vis* list of projects and activities prohibited / regulated therein.
5. Various notifications dated 25<sup>th</sup> January 2015 / 17<sup>th</sup> February 2015 / 24<sup>th</sup> February 2015 / 25<sup>th</sup> February 2015 issued by the Ministry of Environment, Forests and Climate Change (MoEF&CC) **specifying the extent of Eco-Sensitive Zone – ESZ (i.e. buffer zone) surrounding Wildlife Sanctuaries and National Park(s) within the State of Goa** as well as details of projects and activities prohibited / regulated therein.
6. Further, the project proponent is required to comply with the following **‘General conditions’**:-
  1. No change in mining technology and scope of working shall be made without prior approval of the ministry of environment and forests.
  2. No change in the calendar plan including excavation quantum of mineral iron ore and waste shall be made.
  3. Conservation measures for protection of flora and fauna in the core and buffer zone shall be drawn up in consultation with the local forest and wildlife Department.
  4. Ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO<sub>2</sub>, NO<sub>X</sub> monitoring, 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 Goa State Pollution Control Board.

5. Data on ambient air quality (RPM, SPM, SO<sub>2</sub>, and NO<sub>X</sub>) should be regularly submitted to the Department of Mines and Geology and Goa State Pollution Control Board.
  6. Fugitive dust emissions from all the sources shall be controlled regularly water spraying arrangement on haul roads, loading and unloading at transfer points shall be provided and properly maintained.
  7. 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 ear plugs/muffs.
  8. Industrial waste water (Workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time oil and grease trap shall be installed before discharge of workshop effluents.
  9. Personal working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
  10. Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures if needed.
  11. A separate environmental management cell with suitable qualified personnel shall be set up under the control of a senior executive who will report directly to the head of the Organisation.
  12. The project authorities shall inform to the regional office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
  13. The funds earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purpose. Year wise expenditure shall be reported to the Directorate of Mines & Geology and the Ministry of Environment and Forests (MOEF & CC) New Delhi.
  14. The Directorate of Mines & Geology and the Ministry of Environment and Forests (MOEF & CC) having regional office at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full co operation to the officer of the regional office by furnishing the requisite data/ information /monitoring reports.
  15. A copy of clearance letter will be marked to concerned Panchayat /local NGO, if any from whom suggestion /representation has been received while processing the proposal.
  16. The Department of environment or any competent Authority may alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
7. Further, the project proponent is required to comply with the following ‘**Specific conditions**’:-
1. The lease holder should ascertain on-site demarcation and construction of lease boundary with cement poles / bio-fencing / barbed wire for the proposed leases in question. The lease boundary may be subsequently geo-referenced for precise positioning and ground-truth verification. As such, the lease holder should ensure that mineral ore extraction are

restricted within the prescribed lease boundary and further ensure that no natural water course (*seasonal or perennial*) gets obstructed / diverted / reclaimed due to mineral ore extraction operations.

2. Top soil from the proposed lease area shall be stacked separately and shall be utilized for plantation, as applicable. Overburden or other rejects shall be backfilled into the worked-out pit as far as possible with a view to restore the land to its original topography or desired alternate use.
3. Overburden shall be stacked at earmarked dump site only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m each stage shall preferably be of 10m and over all slope of the dump shall not exceed 28°. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self sustaining. Compliance status shall be submitted to the ministry of environment & Forests on six monthly basis.
4. Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
5. Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run off and siltation shall be based on the rain fall data.
6. Drilling and blasting shall not be undertaken.
7. Plantation shall be raised in area of 0.90 ha including a green belt of adequate width by planting the native species around the ML area, roads , OB dump sites etc in consultation with the local DFO/Agriculture department,. The density of the tress shall be around 2500 per Ha.
8. The project Authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director Central Ground Water Board.
9. Regular monitoring of ground water 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-pre monsoon (April ómay) , monsoon (august) [post monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF , Central Ground water Authority and regional director central Ground water Board.
10. Vehicular emission shall be kept under central and regularly monitored measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with tarpaulin and shall not be overloaded.
11. Sewage treatment plant shall be installed for the colony TP shall also be provided for workshop and wastewater generated from mining operations.
12. A final closure plan along with details of Corpus fund shall be submitted to the Directorate of Mines & Geology, Goa for approval.

13. The lease holder should ensure construction of approach road / proper access to enable transportation of ore from site to desired destination and/or crushing unit, as applicable. Transportation of ore shall be done by covering the trucks with tarpaulin so that no spillage of material / dust takes place en route.
  14. The lease holder should comply with the proposed plan of action for extraction of ores within the available lease boundary limits in terms of provisions of Mines and Safety Rules / Guidelines, as applicable. In addition, safety gadgets and health-care facilities should be provided to workers vis-a-vis maintain hygiene surrounding the proposed lease boundary.
  15. The lease holder shall obtain the ~~Consent~~ and / or ~~Authorization~~ as applicable, from the Goa State Pollution Control Board (GSPCB) as per the relevant provisions of the Air / Water Acts and Hazardous Waste (*Management, Handling and Transboundary Movement*) Rules, 2008 as amended.
  16. No extraction is carried out within the safety zone of any bridge and/or embankment as well as within the vicinity of natural / man-made archaeological / heritage site(s).
  17. The lease holder shall implement air pollution control measures / dust minimizing initiatives / noise control measures, wherever applicable, within the lease area as well as approach road and establish adequate buffer zone around the lease boundary to minimize dust pollution. It should be ensured that the Ambient Air Quality (AAQ) parameters as well as Noise be monitored at site and at the nearest human settlement (*at least twice during pre-monsoon and post-monsoon periods separately*) and comply with the norms prescribed by the Central Pollution Control Board (CPCB) and Noise Pollution (Control) Rules, 2000 respectively at all times.
  18. Half-yearly compliance report on the conditions stipulated hereinabove shall be submitted to this Authority / DMG on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year.
  19. Green belt development shall be carried out as per CPCB guidelines including selection of local plant species and in consultation with Forest Department / Zonal Agricultural Office (ZAO), as applicable.
  20. In case of any violation on above required terms n conditions will force the committee to stop the activities immediately.
2. **To decide on transfer of Environmental Clearance issued to GWMC for set up of Common Bio medical waste treatment facility at Kundaim to M/s Biotic waste Solutions Pvt Ltd.**

**Background:** This office earlier was in receipt of application along with the EIA report dated 28/12/2018, refereed above, submitted to Goa-SEAC, Seeking prior Environmental Clearance under the Environment Impact Assessment Notification, 2006. The Environmental Clearance was granted vide letter dated 27/09/2019 to **M/s Goa Waste Management Corporation (GWMC)**, for setting up of Common Bio-medical Waste Treatment Facility (CBMWTF), at Plot No BW-1 in Kundaim Industrial Estate, Kundaim, Ponda, Goa

The Concessionaire of the Goa Waste Management Corporation ó M/s Biotic Waste Solutions Pvt. Ltd., approached this Authority (*i.e. Goa- SEIAA*), seeking prior amendment and transfer of Environmental Clearance (EC) for establishment of a Common Bio-medical Waste Treatment Facility (CBMWTF), at Plot No. BW-1, in Kundaim Industrial Estate, Kundaim, Goa and submitted letter dated 13/08/2020 alongwith additional information. The Concessionaire M/s Biotic Waste Solutions Pvt. Ltd. made a presentation before the SEAC, The Following Amendments were requested by the Concessionaire of the Goa Waste Management Corporation ó M/s Biotic Waste Solutions Pvt. Ltd.

	<b>Points from Existing EC</b>	<b>Existing EC</b>	<b>Amended EC</b>
	Equipment Sr. No. 2: Autoclave	240 Liter (Volume)	One 8130 Liter/batch (Volume) and One 2000 Liter/ batch (Volume) as standby
	Equipment Sr. No. 3: Shredder	50kg/hour	250kg/hr
<i>New Point</i>	Equipment Sr. No. 4:	blank	Plastic Waste Recycling/ Management/ Reprocessing system. Installed one Line of 400 kg/hr
	Point 16	Ambient noise Levels shall conform to residnetal standard both during day and night.	Ambient noise levels shall conform to industrial standards both during day and night.
	Point 45	Entire quantity of treated wastewater shall be resuled for individual purpose within the premises after conforming the GSPCB norms includng 600m x 600 x garden bed along the periphery of the plot.	Entire quantity of treated wastewater shall be reused for individual purpose within the premises after conforming the (GSPCB) norms including 600mm wide green belt along periphery of the plot.
	Point 54	Regular Monitoring of ground level concentration of PM10, PM2.5, Nox and CO shall be carreid out at the site and downwind direction and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the CPCB. If at any stage these levels are found to exceed teh prescribed limits, necessary additional/control measures shall be taken immediately	To be Maintained

	Point 56	Proponent shall strictly follow the Environmental Monitoring Program (EMP) for Ambient Air Quality Monitoring (AAQM). An online Ambient Air Quality monitoring station to be installed.	To be Maintained
	Point 58	Diesel/HSD to the tune 60Lit./hr shall be used in the stand-by DG set (Cap.20 KVA).	Diesel/HSD to the tune 60Lit./hr shall be used in the stand-by DG set (Cap.250 KVA).
	Point 64	Treated Bio-medical plastic waste shall be sold out to GSPCB Authorized Recyclers only.	Treated Bio-medical plastic waste shall be sold out to any SPCB/SPCC Authorized Recyclers only.
	Point 65	Used oil shall be either reused for lubrication in plant machineries or sold out to GSPCB registered/ Authorized Recyclers.	Used oil shall be either reused for lubrication in plant machineries or sold out to any SPCB/SPCC registered/ Authorized Recyclers.
	Point 66	Discarded container/bags shall be either reused or sold only to GSPCB Authorized Recyclers.	Discarded container/bags shall be either reused or sold only to any SPCB/SPCC Authorized Recyclers.
	Point 67	Treated glass waste shall be sold out to GSPCB Authorized Recyclers only.	Treated glass waste shall be sold out to any SPCB/SPCC Authorized Recyclers only.
	Point 72	All possible efforts shall be made for Co-Processing of the Hazardous Waste prior to disposal into TSDF/CHWTF	All the Hazardous waste generated is to be disposed off into a TSDF/CHWTF as per HWM Rules 2016.
	Point 93	Rain water recharging of surface as well as rooftop runoff shall be undertaken and the same water shall be used for the various activities of the project to conserve fresh water	Rainwater harvesting system for recharging of surface water as well as rooftop runoff shall not be undertaken to avoid chance of contamination, being a CBWTF.

The Goa-SEAC after due consideration of the documents submitted by the project proponent and additional clarification furnished in response to its observation have recommended the grant of amendment in earlier EC dated 27/09/2019 for the above-mentioned project with the condition that the project proponent shall comply with the terms and conditions specified in this amended Environmental Clearance. The Goa-SEAC recommended the said proposal to the (Goa-SEIAA) Authority for Amendment and Transfer of grant of Environmental Clearance under the EIA Notification, 2006, (as amended).

**3. Further, the Committee decided to differ following matters to take suitable decision for want of time, till the newly appointed Secretary and incumbent Committee peruse all available records and gets fully appraised.**

1. Project Specific Presentation by Jog Envirotek for proposed minor mineral project by John Dias.
2. Project Specific Presentation by Joshi consultancy for minor mineral project by Wilson Braganza for proposed 0.65Ha basalt quarry lease at paroda, Salcete, Goa.



3. To decide on compliances submitted by National Blue pearl (Alex Fernandes) for proposed basalt lease at Muguli , Sanguem, Goa.
4. To decide on compliances submitted by Mrs Delia Fernandes for proposed basalt lease at Barcem, Quepem, Goa.
5. To decide on new project proposal received by This office from Alzira Soares & ors for proposed building & construction project in the city Panaji bearing Chalta nos. 78, 78-B, 79 to 103 of P.T sheet no.95.

*The meeting ended with a vote of thanks to the chair.*

**Dr. Purushotam Pednekar** \_\_\_\_\_ *Sd/-* \_\_\_\_\_

**Dr. Nitin Sawant** \_\_\_\_\_ *Sd/-* \_\_\_\_\_

**Dr. C.U. Rivonker** \_\_\_\_\_ *Sd/-* \_\_\_\_\_

**Shri. Dominic Fernandes** \_\_\_\_\_ *Sd/-* \_\_\_\_\_

*Sd/-*

**Shri. SanjeevJoglekar**  
(Secretary Goa-SEAC)

*Sd/-*

**Shri. SuhasGodse**  
(Chairman Goa-SEAC)

Place: Porvorim

Date: September 2020.

### Annexure –I

#### List of members who attended 125<sup>th</sup> Goa-SEAC meeting held on 23<sup>rd</sup> September 2020

1. Shri. Suhas Godse, Taleigao - *Chairman (Goa-SEAC)*
2. Dr. C.U Rivonker, Margao - *Member (Goa-SEAC)*
3. Dr.Nitin S. Sawant, Porvorim - *Member(Goa-SEAC)*
4. Dr.Purushotam Pednekar, Mapusa - *Member(Goa-SEAC)*
6. Shri. Dominic Fernandes - *Member(Goa-SEAC)*
7. Shri. Sanjeev Joglekar, Panaji - *Secretary (Goa-SEAC)*