

F.No.11-67/2013-IA-III
Government of India
Ministry of Environment, Forest & Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road,
New Delhi - 110 003

Dated: 28th April, 2015

To
M/s Trimex Sands Pvt. Ltd.,
Vatchavalsa (V), Gara Mandal, Srikakulam Dist.,
Andhra Pradesh - 532 404

Subject: Expansion of Srikurmam Heavy Mineral Sand Project at Vatsavalasa & Tonangi Villages in Gara Mandal in Srikakulam District, Andhra Pradesh by M/s Trimex Sands Pvt. Ltd. - CRZ Clearance -Reg.

Sir,

This has reference to your proposal forwarded by the Special Chief Secretary to Govt. of Andhra Pradesh, Environment Forests Science and Technology Department, Andhra Pradesh vide letter no. 6613/ENV/CZMA/ 2013 dated 15.02.2014 and your letter dated 12.11.2014 seeking prior CRZ Clearance on the above-mentioned project.

2. The Ministry of Environment, Forest & Climate Change has considered the application. It is noted that the proposal is for grant of CRZ Clearance for **Expansion of Srikurmam Heavy Mineral Sand Project at Vatsavalasa & Tonangi Villages in Gara Mandal in Srikakulam District, Andhra Pradesh by M/s Trimex Sands Pvt. Ltd.** The proposal was considered by the EAC in its meeting held on 30th June, 2014 - 2nd July, 2014. The proponent has informed that:

- i. The proposal is for expansion of Mineral Sand Mining from 2 MTPA to 6 MTPA & Mineral Sand production from 0.63 MTPA to 0.93 MTPA. Mine lease area is 7.20 Sq. Km for mining of heavy mineral sand having Ilmenite, Rutile, Zircon, Garnet, Sillimanite & 59.27 Ha Plant Area allocated at Vatsavalasa & Tonangi Villages, Gara Mandal, Srikakulam District, Andhra Pradesh.
- ii. The State Govt. of Andhra Pradesh has granted a mining lease for mining of heavy mineral sand having Ilmenite, Rutile, Zircon, Garnet, Sillimanite minerals from 23.02.2004 to 22.02.2034 in 7.20 Sq.Km area at Vatsavalasa & Tonangi Villages, Gara Mandal, Srikakulam District, Andhra Pradesh. The Ministry of Environment & Forest has granted Environmental and CRZ clearance for the project for 2.0 MTPA. The project proponent has submitted application for expanding mining capacity from 2.0 MTPA to 8.0 MTPA, in July 2011.
- iii. The proposal was considered by the Committee to determine Terms of Reference (TOR) during 19th meeting of EAC held during 21st - 23rd September 2011. It was decided that a sub Committee of EAC may undertake a site visit before making recommendations for TOR.
- iv. The project was further considered by EAC in its 23rd meeting held during January 23 - 25th 2012 wherein the project proponent made a request to



- allow them to start collecting environmental data for the purpose of preparing the EIA/EMP Report pending visit of sub committee. The matter was placed before the EAC for their consideration. After deliberating the matter, the Committee agreed that the proponent may be allowed to collect baseline data for preparation of EIA/EMP report for the forthcoming pre-monsoon season 2012.
- v. A duly constituted Sub-Committee of the Expert Appraisal Committee from MoEF visited the project site on 17th March 2012 and inspected the project activities and also went through the compliances of the existing Environmental Clearance conditions submitted by the project proponent.
 - vi. MoEF has issued the Terms of Reference (ToR) for undertaking detailed EIA study in accordance with the provisions of the EIA Notification dated September 2006 vide Lr.No J - 11015/175/2011 - IA.II (M) dated 6th July 2012.
 - vii. In due course, the project proponent has decided to reduce the capacity of expansion from 8.00 MTPA to 6.00 MTPA due to technical and market issues. In this regard, the PP got the permission from MoEF for downscaling the earlier proposal of expansion from 8.0 million tons per annum to 6.0 million tons per annum vide letter No. J-11015/175/2011-IA.II (M) dated 09.09.2013.
 - viii. The TOR issued by MoEF is complied and the point-wise compliance status is included in the Final EIA report submitted to MoEF on 18.02.2014. The point-wise compliance of TOR issued by MoEF was addressed by the PP and discussed in detail during the meeting The Regional Office of the MoEF, Bangalore has certified compliance of the existing EC conditions and the same is submitted along with the Final EIA.
 - ix. The Mine lease area is 7.20 Sq. Km & Plant area is 59.27 Ha situated outside ML area. There is no forest land in the lease area. Scheme of Mining for a further period of five years from 2009-2010 to 2013-2014 was approved by the Indian Bureau of Mines vide letter no AP/SRK/MP/Garnet-2/Hyd dated 18/6/2009 and by Atomic Minerals Directorate for Exploration and Research (AMD) by vide letter no AMD/MPA/3M/TSPL/720Ha/2009 dated 17.08.2009. The latest mining plan for the project is approved by AMD vide letter no AMD/MRG/TSPL/SM/720Ha/2014 dated 15.05.2014.
 - x. It is reported by the Project Proponent (PP) that the mine working will be opencast mechanized mining method involving dry mining and dredging. No drilling and blasting or sorting of the material at mine site are necessary. Run-off mine ore will be mined and concentrated with advanced environmental friendly equipment's and technology, wherein ore mining, concentration, backfilling and afforestation on reclaimed land takes place simultaneously, thus limiting the gap between mining and rehabilitation to pre-mining stage to only a few months.
 - xi. Mined/dredged heavy mineral sand is screened, slurried and pumped to a pre-concentration plant where latest imported equipment's to concentrate minerals in the ROM into three to four mineral rich concentrates. The concentrates from the Plant will be further transported to a Mineral Separation plant for separation of individual minerals.
 - xii. Heavy mineral sand from lower layer having high slime content will be additionally cleaned in a cleaning plant before it is pumped to the Plant. The excavated area will be simultaneously refilled with tailings generated from pre-concentration plant and afforested with local suitable plant species and make the ecological balance of the area.

- xiii. It is reported by the PP that total Mineral Reserves are about 27.98 million tonnes with mineral resources 37.45 million tonnes. Life of the mine is about 8 years.
- xiv. It was reported by the PP that solid waste generation will be about 22.958 million tonnes of silica sand which form the reject quantity during the first five years when 27.65 million tonnes of ROM will be handled. The plant waste/tailings contain shells, silica & silt/slime and this waste sand will be dewatered by cyclones. The tailings which form about 83% of ROM will be transported/pumped back for refilling the mined out areas and subsequent afforestation.
- xv. The total water requirement for the project is estimated as 750 m³/hr. The project proponent already holds permission to draw 500 m³/hr from the Vamsadhara River. The Department of Irrigation, Government of AP has already recommended the additional quantity of 250 m³/hr.
- xvi. It was reported by project proponent that mining will be carried out below the ground water table, however no mine dewatering is involved. A comprehensive hydrogeological study carried out by Andhra University is submitted along with Final EIA.
- xvii. It was reported by the project proponent that there is no wildlife sanctuary/tiger reserve/national park, etc within the 10 km radius area around the mine lease. Schedule I species i.e Olive Ridley Turtle is found the study area. A detailed conservation & intervention plan is prepared and submitted by project proponent along with final EIA & EMP Report.
- xviii. Baseline studies were carried out during summer season 2012. All the parameters for air, water, and noise quality were reported to be within prescribed standards. The study on the impact of the mining on Olive ridly turtle, traffic, ground water, flora & fauna etc are also carried out and submitted along with final EIA. HTL/LTL demarcation by authorised agency also carried out and report submitted.
- xix. It was informed by the project proponent that the Public Hearing for the project was conducted on 29.12.2012 near Project site. The Public Hearing was chaired by District Collector, Srikakulam. The issues raised during public hearing are considered and discussed in the final EIA. It was informed by Project Proponent that as per the villagers requirements, they would take care of local employment; health issues, providing education and assistance in vocational training etc.
- xx. The Andhra Pradesh Coastal Zone Management Authority (APCZMA) has recommended the project vide letter No. 6613/ENV/CZMA/ 2013 dated 15.02.2014
- xxi. The cost of the project is Rs 140 Crores. Capital budget for environmental protection measures is Rs. 1064.00 lakhs and annual recurring cost is Rs.1616 lakhs after expansion.
- xxii. There is no court case against the project.

3. The EAC in its meeting held on 30th June, 2014 – 2nd July, 2014 observed that the block has a long patch of forest between the proposed mining area and the HTL. The project proponent has proposed a depth of mining to a depth of nine meters based on the international and also some practices being followed at the project in Orissa.

4. The project proponent indicated that he has an approved mining plan from the Mining Dept while the approval from IBM is under process. The CRZ EAC being a Committee for protection of coastline of the country is really

concerned about mining practices which involve excavation, whether manual or mechanical with such depth upto 9 meter, and its impact on the GW and coastline. Even though the activity is beyond the 100 HTL, the PP has indicated that the excavated areas will be backfilled and there will be buffer of 15 m between the excavation area and the forest area. The Committee was of the view that it should get the clear guideline from the MOEFCC who may like to consult with the IBM and Atomic Minerals Division. whether such proposals with depth of excavation of such range are to be recommended. While examining this case the MOEFCC may also like to go through the SCZMA recommendations imposed on the proponent regarding the proposal.

5. The project was re-examined by the EAC in its meeting held on 28th – 30th January, 2015 and the project proponent informed that:

- i. Mining Plan Approval obtained from Competent Authorities such as AMD vide letter No. AMD/MRG/TSPL/SM/720 Ha/2014 dated 15.05.2014 and Indian Bureau of Mines (IBM) vide letter No. AP/SR/MP/Gar-7/Hyd dated 23.09.2014. The depth up to 9 m has been permitted by AMD, IBM.
- ii. There are no sand dunes and forest area in the project site
- iii. There is no wildlife sanctuary/tiger reserve/national park, etc within the 10 km radius area around the mine lease. Further Andhra University is carrying out monitoring studies every year since 2009. The report from 2009 to 2012 submitted establish that the beaches have little potential for Schedule I species i.e. Olive Ridley Turtle. The AU report and detailed conservation & intervention plan is prepared and submitted along with final EIA & EMP Report.
- iv. It is noted that in similar mining in Kerala. IBM vide letter No. M.11013/34/MoEF(SZ)/2014-CCOM dated 02.12.2014 communicated that Heavy Minerals availability has been proved up to depth of 8m and dredge mining is permitted up to this depth below the MSL in the approved mining Plan.

6. The EAC in its meeting held on 28th - 30th January, 2015, after deliberation recommended for grant of CRZ Clearance. The Ministry of Environment, Forest & Climate Change hereby accords CRZ Clearance for the above-mentioned **Expansion of Srikurmam Heavy Mineral Sand Project at Vatsavalasa & Tonangi Villages in Gara Mandal in Srikakulam District, Andhra Pradesh by M/s Trimex Sands Pvt. Ltd.** under the provisions of the Coastal Regulation Zone Notification, 2011 and amendments thereto and Circulars issued thereon and subject to the compliance of the following specific conditions, in addition to the general conditions mentioned below:

7. SPECIFIC CONDITIONS:

- (i) "Consent to Operate" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of mining work at the site.
- (ii) The Project Proponent should obtain the NOC/Clearance from the Competent Authority, as applicable, with regard to conservation and management plan on Ridley Turtle.
- (iii) Soil conservation measures shall be prepared and implemented.

- (iv) The mined out pits shall be refilled with the sand only. The Ground Water Authority shall ensure that all the mined out pits are refilled concurrently. Site photographs shall be submitted before and after the mining activity to Regional Office of MoEF.
- (v) All the conditions/recommendations as stipulated by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter No. 6613/ENV/CZMA/ 2013 dated 15.02.2014, shall be complied with.
- (vi) The Mining shall be in accordance with the Mining plan approved by AMD and IBM.
- (vii) The Project Proponent shall co-ordinate with the Directorate of Fisheries in respect of providing access to Beach for fishermen.
- (viii) Ground water on landward side of the mining area shall be carried out before, during and after mining so as to check the possible impact/ sea water intrusion.
- (ix) Plantation shall be carried out on the mined out area, as committed.
- (x) Ground water observatory wells shall be within and outside the mining area prior to the mining for ground water monitoring. Project Proponent shall carry out soil analysis, ground water analysis at the site once in three months and submit the same to the State Pollution Control Board and Regional Office, MoEFCC.
- (xi) Digital processing of the entire mining lease area using remote sensing technique should be carried out regularly once in three years for monitoring land use pattern and physiographic of the area and report submitted to the Regional Office, MoEFCC.
- (xii) No drilling and blasting should be involved.
- (xiii) There shall be no ground water drawal in CRZ area.
- (xiv) There shall be no mining in intertidal zone.
- (xv) To control dust during transportation water sprinklers shall be adopted and also the sand transport vehicles shall be covered with Tarpaulin sheets.
- (xvi) TCLP analysis of both mined and tail materials can be done to check the presence of Hazardous materials and report shall be submitted along with the six monthly monitoring reports.
- (xvii) A green belt shall be developed after mining and refilling block by block.
- (xviii) Project proponent shall ensure that no disturbance is caused to the mangroves/fisherfolk.
- (xix) All the commitments made during the public hearing including the budget for corporate social responsibility shall be earmarked for carrying out the activities.
- (xx) Mineral processing plant shall be located outside CRZ area.



- (xxi) Safety measures shall be taken for workers to prevent radioactive impact on health. All the safety regulations as applicable shall be strictly followed.
- (xxii) All prior statutory clearances from Department of Atomic Energy, Indian Bureau of Mines, Central and State agencies as applicable shall be obtained.
- (xxiii) Sand dunes should not be flattened.

GENERAL CONDITIONS

- (i) A copy of the clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
 - (ii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.
8. Officials from the Regional Office of MoEF&CC, Chennai who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF&CC should be forwarded to the CCF, Regional office of MoEF&CC, Chennai.
9. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
10. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
11. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
12. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
13. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forests & Climate Change at <http://www.envfor.nic.in>. The advertisement should be made within

Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Chennai.

14. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation v/s. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

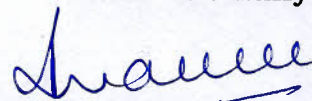
15. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

16. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

17. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

18. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

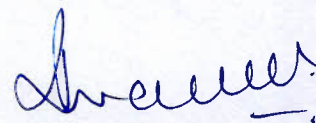
Yours faithfully,



(Dr. Ranjini Warriar)
Director

Copy to:

1. Chairman, Andhra Pradesh Coastal Zone Management Authority & Special Chief Secretary to Govt., E.F.S & T. Dept., Secretariat, Hyderabad- 500 002
2. The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32.
3. The Chairman, Andhra Pradesh Pollution Control Board, Paryarana Bhawan, A-III, Industrial Area, Sanathnagar, Hyderabad - 500 018, Andhra Pradesh.
4. The CCF, Regional Office, MoEF&CC(SZ), Kendriya Sadan, IVth floor, E&F wings, 17th Main Road, Koramangala II Block, Bangalore - 560 034.
5. Guard File.
6. Monitoring Cell.



(Dr. Ranjini Warriar)
Director