

PROPOSED TERMS OF REFERENCE FOR EIA STUDY

The final EIA report was already prepared and submitted to MOEF&CC on 02.01.2014 (dt.19.12.14) after Public hearing which was conducted on 02.05.2013 & 05.04.2013 in Surat and Bharuch district respectively for a capacity expansion from 4.2 to 7.4 MTPA and ML area expansion from 2080 to 3019 ha. The present proposal is for amendment of the above mentioned proposal from 4.2 to 5.4 MTPA in the same ML area of 2080 ha (without increase). Since 5.4 MTPA is a lower capacity than 7.4 MTPA and the area of 2080 is less than 3019 ha, on which public hearing was held, the MOEF&CC is requested to consider the same public hearing as conducted on 02.05.2014 & 05.04.2013 in Surat and Bharuch district respectively.

However, as the baseline data is more than three years old as on date and project parameters have also changed, the terms of reference on the basis of which the EIA will be prepared are given below:

1.0 DATA GENERATION

The data that will be generated during Post Monsoon Season from October to December 2018 by NABL/ MOEF&CC accredited laboratory in accordance with the requirement of statutory agencies is given in Table 1. The monitoring and testing will be done as per the guidelines of MOEF and the IS standards. Monitoring will be conducted for the following parameters:

TABLE 1 : DATA GENERATED

Sl. No.	Description	No. of locations	Total No of Samples
1.0	AIR Ambient air monitoring (24 hourly samples), twice a week for 3 months for one season Parameters : PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , CO	16	384
1.1	Meteorological parameters will be measured at hourly duration simultaneously at one air monitoring station for 3 months. Parameters: Temperature, Relative humidity, Rainfall, wind speed, wind direction, cloud cover	1	90 days
2.0	WATER Water samples to be collected from various locations (surface and ground water) in core and buffer zone (10 km radius). Parameters tested for physical and chemical and biological parameters as well as according to applicable standards	Ground water 8 and surface water 6 samples	14
3.0	SOIL	6	6
4.0	NOISE Hourly readings taken for 24 hours (Leq)	10	10
5.0	TRAFFIC DENSITY	1	1 sets

2.0 DATA COLLECTION

10 km radius (buffer zone), both of which comprising the 'study area'. The following data, through field survey and other sources will be updated by consultant for preparing the EIA/EMP of the proposed project with related facilities:

- i Study of fauna, flora, forests and cropping pattern.
- ii Major habitats, ecologically sensitive areas, biosphere reserves, wildlife sanctuaries within 10 km of the project site.
- iii Major industries and places of historical/ archaeological importance.
- iv Land use pattern within core zone and buffer zone.
- v Geo-hydrological aspects based on available data from various secondary sources.
- vi Demography and socio-economic status based on last available census data for the entire study area.
- vii Relevant meteorological data for the previous decades from Indian Meteorological Department (IMD).
- viii Identification of water bodies, hills, roads etc.
- ix In case of operational projects, emission data and details of implemented pollution control systems.

3.0 PREPARATION OF EMP

The EMP will be prepared for expansion from 4.2 to 5.4 MTPA and will include the following details:

- a. Study of the reports, like Project report, mining plan available with the client regarding the project.
- b. Present Environmental Setting

The base line data generated and collected as per para 1.0 and 2.0 will be used to establish the present environmental scenario.

- c. Identification, prediction and evaluation of Anticipated Environmental Impacts due to the Proposed project and related facilities

The environmental impacts would be anticipated in core and buffer zone on:

- Topography
- Climate
- Water resources & quality (Surface/Ground)
- Air Quality
- Noise Levels
- Flora and Fauna
- Traffic density
- Land-Use
- Socio-Economic Conditions
- Habitats
- Health, culture, human environment including public health
- Occupational health and safety
- Sensitive Places/Historical Monuments

The impacts would be anticipated based on experience of similar projects.

- d. Proposed Environmental Safeguards and Monitoring Mechanism

Relevant guidelines, as per Environmental Impact Assessment (EIA) Notification no. S.O. 1533 dated the 14th September, 2006 and its amendments till date

under the Environment (Protection) Act, 1986, will be kept in mind while spelling out mitigation measures. The following aspects would be covered.

- i Reclamation of areas disturbed during construction but not required for any activity during operation.
- ii Measures to control the surface and ground water pollution due to various effluents to be discharged.
- iii Measures to control air pollution due to proposed activities/ operation.
- iv Green belt development and identification of flora species which can be planted in and around the project.
- v Measures to contain noise pollution and mitigate adverse impact on workers and habitat in core and buffer zone.
- vi Pronounce the improvement in socio-economic conditions and benefits the people will get on implementation of the project.
- vii Measures to control health hazard of workers and surrounding population.
- viii Total and specific cost of implementation of pollution control measures.
- ix Environmental monitoring, implementation organization and feedback mechanism to effect mid course corrections.
- x Solid Waste Management

The experience of similar project(s) will be made use of for envisaging the pollution control measures by pronouncing the success in the past.

The EIA report shall be prepared as per the generic structure prescribed in MOEF Notification dated 14.09.2006 with following chapters:

1. An introduction covering background, location, surrounding features, compliance to TOR and salient features (Chapter 1)
2. Study of the approved mining plan (to prepare Chapter 2).
3. Present Environmental Setting
The base line data generated by NABL/ MOEF accredited lab will be used to establish the present environmental scenario. (Chapter 3)
4. Identification, prediction and evaluation of Anticipated Environmental Impacts due to the Mining and related facilities (Chapter 4)
5. Justification of project technology (Chapter 5)
6. Environmental monitoring and control mechanisms with budget (Chapter 6) which will include
 - Total investment for improving/mitigating environment
 - Recurring expenditure during stage of production
7. Additional studies – Public consultation, Risk Assessment or any other study prescribed in TOR (Chapter 7)
8. Project benefits and commitment of the company to social welfare in surrounding areas (Chapter 8)
9. EMP (Chapter 9)
10. Summary & Conclusion (Chapter 10)
11. Disclosure of consultants engaged (Chapter 11)