

DRAFT TERMS OF REFERENCE

1. Executive summary of the project – giving a prima facie idea of the objectives of the proposal, use of resources, justification, etc. In addition, it should provide a compilation of EIA report including EMP and post-project monitoring plan in brief.
2. Justification for selecting the proposed unit size.
3. Land requirement for the project including its break up for various purposes, its availability and optimization.
4. Details of proposed layout clearly demarcating various units of the plant.
5. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
6. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
7. Details on requirement of raw materials, its source and storage at the plant
8. Details on requirement of energy and water requirement along with its source and authorization from the concerned department.
9. Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
10. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters.
11. Details of the proposed methods of water conservation, recharging.
12. Water drawl approval from concerned authorities like CGWB, irrigation department,
13. Details on use of high calorific hazardous wastes in kiln and commitment regarding use of hazardous waste.
14. Details on composition, generation and utilization of waste/fuel gases and their utilization.
15. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly char and fly ash.
16. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
17. Details regarding infrastructure facilities such as sanitation, fuel, restroom, etc., to be provided to the workers during construction as well as to the casual workers including truck drivers during operation phase.
18. In case of expansion of existing industries, remediation measures adopted to restore the environmental quality if the groundwater, soil, crop, air, etc., are affected and a detailed compliance to the prior environmental clearance/consent conditions.
19. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
20. The study area shall be up to a distance of 10 km from the boundary of the proposed project site.
21. Location of the project site, and nearest habitats with distances from the site to be demarcated on a toposheet (1: 50000 scale).
22. Landuse of study area should include data about the residential/ institutional/nearest village/ township/ locality/ housing society, industries, etc., based on the satellite imagery.
23. Demography details of all the villages falling within the study area
24. Topography of the area clearly indicating the presence of pits deeper than one meter, if any. If these pits require to be filled in, details of filling material to be used, quantity required, its source, mode of transport, etc.
25. The baseline data to be collected from the study area w.r.t. different components of environment viz. air, noise, water, land, and biology and socio-economic
26. Geological features and Geo-hydrological status of the study area.

27. Surface water quality of nearby water sources and other surface drains.
28. The location map drawn on Survey of India topo sheets with satellite imageries as regards its interference with natural drainage paths.
29. Details on ground water quality near solid waste dump zone.
30. Details on water quality for parameters
31. Relevant ambient air quality parameters for monitoring
32.) The air quality contours may be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any and wind roses.
33. Proposed pollution control devices for the controlling the releasing of SPM to 50 mg/m³
34. One season site-specific data excluding monsoon season.
35. Site-specific micro-meteorological data including mixing height.
36. Noise levels at sensitive/commercial receptor.
37. Proposed baseline monitoring network for the consideration and approval of the Competent Authority.
38. Ecological status (terrestrial and aquatic) of the study area such as habitat type and quality, species, diversity, rarity, fragmentation, ecological linkage, age, abundance, etc.
39. Anticipated generic environmental impacts due to this project, which may be evaluated for significance and based on corresponding likely impacts VECs may be identified. Baseline studies may be conducted for all the concerned VECs and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures.
40. Air pollution control system to be installed should be elaborated upon to control SPM emissions.
41. Proposed odour control measures
42. Impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
43. Unit-wise air pollution control measures proposed for the control of gaseous emissions from all the sources should be incorporated.
44. Impact of the project on the AAQ of the area. Details of the model used and the input data used for modeling should also be provided. The air quality contours may be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The wind roses should also be shown on this map.
45. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack/fugitive emission based on site-specific meteorological features. Air quality modeling for specific pollutants needs to be done.
46. Note on treatment of wastewater from different plants, recycle and reuse for different purposes.
47. Efforts made to minimize use of groundwater and impact on the groundwater, if any due the proposed project.
48. Impact of noise and measures taken for its control.
49. Char handling and management
50. Hazard identification taking resources to hazardous indices, inventory analysis, natural hazardous probability, etc., Consequent analysis of failure and accidents resulting in release of hazardous substances.
51. Impact of toxic metal content in the waste material and its mitigating measures
52. Impact of stormwater and mitigating measures.
53. Surface as well as roof top rainwater harvesting and groundwater recharge should be included. Action plan for the greenbelt development – species, width of plantations, planning schedule etc. in accordance to CPCB published guidelines.
54. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly tar and sludge from by product plant, dust from APCS etc.

55. Assessment report of the impact of transport of raw material and finished product on the transport system.
56. Proposed measures for occupational safety and health of the workers. Indian Factories Act must be referred for values of work zone concentration and other provisions.
57. Comparison of alternate sites considered and the reasons for selecting the proposed site. Conformity of the site with the prescribed guidelines in terms of CRZ, river, highways, railways, etc.
58. Monitoring of pollution control at source
59. Monitoring of pollutants at receiving environment for all the appropriate notified parameters – air quality, groundwater, surface water, etc., during operational phase of the project.
60. Specific programme to monitor occupational safety and health protection of workers.
61. Appropriate monitoring network has to be designed and proposed, to assess the possible residual impacts.
62. Monitoring of carbon foot print
63. Details of in-house monitoring capabilities and the recognized agencies if proposed for conducting monitoring.
64. Impact of the project on local infrastructure of the area such as road network and whether any additional infrastructure would need to be constructed and the agency responsible for the same with timeframe.
65. Details on risk assessment and damage control during different phases of the project and proposed safeguard measures.
66. Details on socio-economic development activities such as commercial property values, generation of jobs, education, social conflicts, cultural status, accidents, etc.
67. Proposed plan to handle the socio-economic influence on the local community. The plan should include quantitative dimension as far as possible.
68. Administrative and technical organizational structure to ensure proposed post-project monitoring programme for approved mitigation measures.
69. EMP devised to mitigate the adverse impacts of the project should be provided along with item-wise cost of its implementation (Capital and recurring costs).
70. Mitigation measures and EMP for construction work camps and slums formed during construction and operation including other induced developments
71. Allocation of resources and responsibilities for plan implementation.
72. Details of the emergency preparedness plan and on-site and off-site disaster management plan.