

**7(da): STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR BIO-MEDICAL WASTE TREATMENT FACILITIES AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT**

**I. Project Details**

- i. Importance and benefits of the project.
- ii. Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental damages, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site.
- iii. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- iv. Details of various waste management units with capacities for the proposed project. Details of utilities indicating size and capacity to be provided.
- v. List of waste to be handled and their characteristics. Details of temporary storage facility for storage of Bio-medical waste at project site.
- vi. Other chemicals and materials required with quantities and storage capacities.
- vii. Detailed design of pre-treatment and waste stabilization facility of *Bio-medical waste*.
- viii. *Project proponents would also submit a write up on how their project proposal conform to the stipulations made in the " Bio-Medical Waste Management Rules, 2016 ", notified by the MoEF&CC on 28<sup>th</sup> March, 2016.*
- ix. Process description along with major equipment and machineries, process flow sheet (quantitative) from *Bio-Medical waste* material to disposal to be provided.
- x. Details of man-power requirement (regular and contract).
- xi. A detailed layout of the project site indicating all the project components.

## **II. Road and Traffic**

- xii. Submit the details of the road/rail connectivity along with the likely impacts and mitigative measures
- xiii. Examine the details of transportation of Bio-Medical wastes, and its safety in handling.

## **III. Land Environment**

- xiv. Detailed soil analysis of the site including its permeability, water holding capacity be included.
- xv. Submit the present land use and permission required for any conversion such as forest, agriculture etc.
- xvi. Specify the land area and space allotted for each activity proposed within the facility. The area requirements for each activity shall be calculated as per the CPCB guidelines for the specified activity.
- xvii. Status of the land purchases in terms of land acquisition Act. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xviii. The EIA would address to the conformity of site to the stipulations as made in the Bio-Medical Waste Management Rules, 2016 and Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and will have a complete chapter indicating conformity to the said rules. NOC shall be obtained from State Pollution Control Board/Committee (SPCB/SPCC) regarding site suitability for establishment of Bio-Medical Waste Treatment Facilities.
- xix. Post project reclamation management program with financial allocation.

## **IV. Environmental Monitoring and Management**

- xx. Examine and submit the details of on line pollutant monitoring.
- xxi. Project proponent must ensure Good Combustion Practice (GCP) to reduce the possibilities of formation of 'Total dioxins and furans'. In addition, GCP must be coupled with appropriate End-of-the-pipe treatment at low temperature to reduce the emission of 'Total dioxins and furans' below the standards. Further, the project proponent must provide detailed Standard operating procedure (SOPs) for sampling and monitoring of 'Total dioxins and furans'.

- xxii. Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment. Regular monitoring shall be carried out for odour control
- xxiii. Water quality around the landfill site shall be monitored regularly to examine the impact on the ground water.
- xxiv. A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry in accordance with the Notification.
- xxv. Air Quality Index shall be calculated for base level air quality.
- xxvi. Baseline data on Ground water quality is required.
- xxvii. Possible carbon footprint contribution from each activities and mitigation measures proposed shall be included as part of Environment Management Plan.

#### **V. Waste Management**

- xxviii. Examine and submit details of the proposed odour control measures.
- xxix. The storage and handling of Bio-Medical wastes shall be as per the Bio-Medical Waste Management Rules, 2016.
- xxx. Details of storage and disposal of pre-processing and post-processing rejects/inerts and products. List of proposed end receivers for the rejects/inerts/products should be provided. MoUs to be submitted in this regard.
- xxxi. Details of hazardous/solid waste generation and their management.

#### **VI. Water Environment**

- xxxii. Detailed hydro-geological studies and possible impact if any accidental contamination occurs shall be included.
- xxxiii. Examine and submit details of monitoring of water quality around the landfill site.
- xxxiv. Examine and submit details of impact on water body and mitigative measures during rainy season.
- xxxv. Details of Drainage of the project up to 5 km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on

peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided.

## **VII. Water Management**

- xxxvi. Details of effluent treatment and recycling process.
- xxxvii. A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

## **VIII. Energy Management**

- xxxviii. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.

## **IX. Disaster Management Plan**

- xxxix. Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
  - xl. Hazard identification and proposed mitigation measures.

## **X. Green Belt**

- xli. A detailed Plan for green belt development.

## **XI. Socioeconomic Environment**

- xlii. Public hearing to be conducted for the project in accordance with provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing should be conducted based on the ToR letter issued by the Ministry and not on the basis of Minutes of the Meeting available on the web-site.
- xliii. The project proponents shall satisfactorily address all the complaints/suggestions that have been received against the project till the date of submission of proposals for Appraisal.

**XII. Court Cases**

- xliv. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

**XIII. Miscellaneous**

- xlv. Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website <http://moef.nic.in/Manual/Incinerator>

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