



**State Environment Impact Assessment Authority, M.P.
(Government of India, Ministry of Environment, Forest & Climate Change)**

Environmental Planning Coordination Organization
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No: 2796 /SEIAA/2022

Date: 12/11/22

To,

M/s Green Resources Solid Waste Management Pvt. Ltd,
Shop No. 4, Sai Park, Misrod,
Hoshangabad Road,
Dist. Bhopal, MP - 462026

Sub: Case No 8743/2021: Prior Environment Clearance for Proposed Integrated Solid Waste Management (ISWM) project processing of 850 TPD Integrated Solid Waste comprises of composting plant and secure land filling facility (380000 cum) at Adampur Chawani, Dist. Bhopal (MP) by M/s Green Resources Solid Waste Management Pvt. Ltd, Shop No. 4, Sai Park, Misrod, Hoshangabad Road, Dist. Bhopal, MP - 462026 Email – grswmpl@gmail.com, Mobile - 9399342907, 9340709592 M/s. Creative Enviro Services , Bhopal - Prescribing of TOR.

Ref:-Online Proposal No. SIA/MP/MIS/67100/2021) received in SEIAA office on 21.10.2021

This is in reference to the proposal submitted in the SEIAA office to prescribe the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the proponent had submitted online information in the prescribed format (Form-1) along with a Pre-feasibility Report and all supporting documents as per EIA Notification & its amendments.

1. The project Integrated Solid Waste Management (ISWM) is Proposed for processing of 850 TPD Integrated Solid Waste comprises of composting plant and secure land filling facility (3,80,000 cum) at Adampur Chawani, Dist. Bhopal (MP).
2. This project is designed for Bhopal Municipal Corporation only because no other ULB is in the vicinity. Government of Madhya Pradesh (GoMP), realizing the necessity of efficient waste management and system, wanted to establish an Integrated Solid Waste Management (ISWM) Project on Public Private Partnership (PPP) basis for management of MSW generated in Bhopal Town.
3. The proposed Integrated SWM Facility will be established in Adampur Chawani, Bhopal (coordinates: 23015' 59.5" N latitude and 770 33' 21.6"E longitude) over available area of 44.9 Acre for ISWM facility out of that 10 acres land is proposed for Sanitary Landfill whereas 15 acres for Composting plant.
4. The case was presented by Env. Consultant Shri Umesh Mishra from M/s. Creative Enviro Services , Bhopal and PP from M/s Green Resources Solid Waste Management Pvt. Ltd. Bhopal in 527th SEAC meeting dtd. 21.11.2021 wherein following submission made:

5. Salient Features of The Project :

Proposed project	The processing of waste will generate some amount of inert waste (Max 20%) which will have to land filled which is called disposal of inert waste. The landfill is designed to keep inert waste for 08 years. Adequate leachate sump shall be provided. The final leftover or the
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	rejects which have no further use or value should be transferred to the landfill site. Approx 145 x 275 square meter size land fill is proposed at village Adampur Chawani to keep inert waste.
Area	25 Acre (10 acres + 15 Acres)
Project capacity	3,80,000 Cubic Meter Capacity of landfill , 850 TPD for composting plant
Operation days	365 days
Fresh water Requirement	20 KLD Source of water Municipal Corporation/Tanker
Electricity Load and Source	600 KVA
Leachate treatment System	Recirculation and RO
Man-power	25 + 35
Total project cost Rs.	35 Crore
Land acquired	44.90 Acre
Land required for proposed landfill	145 X 275 Meter (size of landfill)
Proposed area for plantation	8.25 acres (3.35 Hac)
Capital Cost for Environmental measures (proposed)	Around 150 Lacs (to be finalized during EIA study)

6. The population was 17,98,218 in 2011 as per Census. The city of Bhopal has a total of 467 Sq. Km area divided into 85 administrative wards for administration purposes and the projected population for 2024 is 2248827.
7. It is proposed to establish the ISWM facility for 850 TPD comprises of Sanitary Landfill and Compost Plant. The land fill facility for ISWM Project will be established in a land of about 10 acres located in Adampur Chawani, Bhopal whereas composting plant shall be established over 15 acres of land at Adampur Chawani, Bhopal (MP).
8. The water requirement for the proposed project is estimated to be about 20 KLD. It is expected that Bhopal Municipal Corporation would supply water to this facility. Otherwise, water requirement would be met through tankers.
9. The power requirement during construction phase is estimated to be about 600 KVA which will be fulfilled by MPTRANSCO and DG Sets of 125 KVA are proposed for power backup.
10. The approximate cost estimate for the proposed facility is about INR 35 Crore.
11. Bhopal Municipal Corporation has total administration over 421910 houses to which it supplies basic amenities like water. It is also authorize to build roads within Municipal Corporation limits and impose taxes on properties coming under its jurisdiction. However, considering the population projection and the waste generation forecast, it is proposed to establish the Integrated Waste Management Facility with 3,80,000 Cubic Meter Capacity of landfill 850 TPD capacity for composting plant.

Year	2019	2024
City Population	2077780	2248827
Waste Generation Per capita in grams per day	400	417.16
Total MSW Qty, TPD	831.11	938.12

After presentation, committee decided to recommend standard TOR prescribed by MoEF&CC with additional TOR. After the recommendation of SEAC the case was considered in 696th SEIAA meeting dtd. 10.12.21 and decided to approve the ToR as recommended by SEAC in 527th meeting held on 12.11.21 and standard TOR prescribed by the MoEF&CC for conducting the EIA along with following additional TOR's and general conditions:-

1. Ghoda- Pachhad dam is approximately 1.0 KM in the NW side hence protection plan from migration of leachate shall be discussed in the EIA report.
2. Complete drainage & design of SLF & ISW shall be discussed in the EIA report with specification of liners and other materials.
3. The proposed project location is sanctioned on existing landfill site thus the status of EC and CET/CTO of old facility (along with documentary support) with compliance status shall be discussed in the EIA report.
4. Detailed layout (A-3 size) of various proposed facilities with their capacities and design criteria shall be discussed in the EIA report.
5. Heavy metal analysis shall be carried out in all soil samples and in any one sample pesticide analysis shall also be carryout.
6. How the leachates will be handled shall be discussed in the EIA.
7. Considering the lactates generation, geo-hydrological studies should be conducted and reported with the EIA report.
8. Arrangements for management of odour nuisance shall be discussed in the EIA report.
9. Current scenario of air, surface and ground water quality shall be presented in the EIA report.
10. All the sensitive features and activities within 05 kms of site which will have the impact of this facility should be studied and discussed in the EIA report.
11. MSW handling technology should be freeze for all the wastes and worst case scenario shall be studied and discussed in the EIA.
12. Preventive measures that will be taken to avoid occurrence of fire due to methane generation be discussed in the EIA.
13. Comprehensive plantation scheme with proposal for planting evergreen broad leaf plant species & shrubs etc (Mehandi, Kadam, Pipal, Putranjiva, kanak Champa) and along the fencing Bamboo, subabool, Neem etc to be planted.

The authority approve the ToR as recommended by SEAC and decided to issue additional TOR by incorporating following conditions for preparation of EIA report:

- a) Global warming potential and carbon foot print of the industrial activities should discussed in EIA report
- b) A buffer zone of no-development should be propped & maintained around landfill site.
- c) Diversion of storm water drains to minimize lechate generation & prevent pollution of surface water & also for avoiding flooding and creation of marshy conditions.
- d) Prevention of run - off from landfill area entering any stream, river, lake or pond. Specifications for land filling given in the Municipal Solid Wastes (Management & handling) Rule, 2000 shall be followed.

General Conditions

1. The date and duration of carrying out the baseline data collection and monitoring shall be informed to the concerned Regional Officer of the M.P Pollution Control Board.
2. During monitoring, photographs shall be taken as a proof of the activity with latitude & longitude, date, time & place and same shall be attached with the EIA report. A drone video showing various sensitivities of the lease and nearby area shall also be shown during EIA presentation.

3. An inventory of various features such as sensitive area, fragile areas, mining / industrial areas, habitation, water-bodies, major roads, etc. shall be prepared and furnished with EIA.
4. An inventory of flora & fauna based on actual ground survey shall be presented.
5. Risk factors with their management plan should be discussed in the EIA report.
6. The EIA report should be prepared by the accredited consultant having no conflict of interest with any committee processing the case.
7. The EIA document shall be printed on both sides, as far as possible.
8. All documents should be properly indexed, page numbered.
9. Period/date of data collection should be clearly indicated.
10. The letter /application for EC should quote the SEIAA case No./year and also attach a copy of the letter prescribing the TOR.
11. The copy of the letter received from the SEAC prescribing TOR for the project should be attached as an annexure to the final EIA/EMP report.
12. The final EIA/EMP report submitted to the SEIAA must incorporate all issues mentioned in TOR and that raised in Public Hearing with the generic structure as detailed out in the EIA report.
13. Grant of TOR does not mean grant of EC.
14. The status of accreditation of the EIA consultant with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared. If consultant has engaged other laboratory for carrying out the task of monitoring and analysis of pollutants, a representative from laboratory shall also be present to answer the site specific queries.
15. On the front page of EIA/EMP reports, the name of the consultant/consultancy firm along with their complete details including their accreditation, if any shall be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed TORs (TOR proposed by the project proponent and additional TOR given by the MOEF & CC) have been complied with and the data submitted is factually correct.
16. While submitting the EIA/EMP reports, the name of the experts associated with involved in the preparation of these reports and the laboratories through which the samples have been got analyzed should be stated in the report. It shall be indicated whether these laboratories are approved under the Environment (Protection) Act, 1986 and also have NABL accreditation.
17. All the necessary NOC's duly verified by the competent authority should be annexed.
18. PP has to submit the copy of earlier Consent condition /EC compliance report, whatever applicable along with EIA report.
19. The EIA report should clearly mention activity wise EMP and CER cost details and should depict clear breakup of the capital and recurring costs along with the timeline for incurring the capital cost. The basis of allocation of EMP and CER cost should be detailed in the EIA report to enable the comparison of compliance with the commitment by the monitoring agencies.
20. A time bound action plan should be provided in the EIA report for fulfillment of the EMP commitments mentioned in the EIA report.
21. The name and number of posts to be engaged by the PP for implementation and monitoring of environmental parameters should be specified in the EIA report.
22. EIA report should be strictly as per the TOR, comply with the generic structure as detailed out in the EIA notification, 2006, baseline data is accurate and concerns raised during the public hearing are adequately addressed.
23. The EIA report should be prepared by the accredited consultant having no conflict of interest with any committee processing the case.
24. Public Hearing has to be carried out as per the provisions of the EIA Notification, 2006. The issues raised in public hearing shall be properly addressed in the EMP and suitable budgetary allocations shall be made in the EMP and CER based on their nature.

25. Actual measurement of top soil shall be carried out in the lease area at minimum 05 locations and additionally N, P, K and Heavy Metals shall be analyzed in all soil samples. Additionally in one soil sample, pesticides shall also be analyzed.
26. A separate budget in EMP & CER shall be maintained for development and maintenance of grazing land as per the latest O.M, of MoEF&CC issued vide letter F.No. 22-34/2018-IA. III, dated 16/01/2020.
27. PP shall submit biological diversity report stating that there is no adverse impact in-situ and on surrounding area by this project on local flora and fauna's habitat, breeding ground, corridor/ route etc. This report shall be filed annually with six-monthly compliance report.
28. The project proponent shall provide the mitigation measures as per MoEFCCs Office Memorandum No. Z-11013/57/2014-IA. II (M) dated 29th October 2014, titled "Impact of mining activities on Habitations-issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area" with EIA report.
29. LPG gas shall be provided for camping labour under "Ujjwala Yojna .
30. In the project where ground water is proposed as water source, the project proponent shall apply to the competent authority such as Central Ground Water Authority (CGWA) as the case may be for obtaining, No Objection Certificate (NOC).
31. Consideration of mining proposals involving violation of the EIA Notification, 2006, the project proponent shall give an undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court of India dated 02/08/2017 in WP © No. 114 of 2014 in the matter of Common Cause V/s Union of India & others before grant of TOR/EC. The under taking interalia includes commitment of the PP not to repeat any such violation in future as per MoEF&CC OM No. F.NO. 3-50/2017-IA.III (Pt.) dated 30/05/2018.
32. The mining project proponents involving violations of the EIA Notification, 2006 under the provisions of S.O. 804 (E) dated 14/03/2017 and subsequent amendments for TOR/EC shall give an undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. Before grant of TOR/EC the undertaking inter-alia include commitment of the PP not to repeat any such violation of future. In case of violation of above undertaking, the TOR/Environmental Clearance shall be liable to be terminated forthwith.
33. Under CER scheme commitments with physical targets shall be included in EIA report for:
- ✓ Proposal for CER activities based upon commitment made during public hearing and COVID-19 pandemic.
 - ✓ Activities such as solar panels in school, awareness camps for Oral Hygiene, Diabetes and Blood Pressure, works related to plantation (distribution of fruit & fodder bearing trees) vaccination, cattle's health checkup etc. in concerned village shall be proposed.
 - ✓ No fuel wood shall be used as a source of energy by mine workers. Thus proposal for providing solar cookers / LPG gas cylinders under "Ujjwala Yojna" to them who are residing in the nearby villages, shall be considered.
 - ✓ PP's commitment that activities proposed in the CER scheme will be completed within initial 03 years of the project and in the remaining years shall be maintained shall be submitted with EIA report.
34. Under Plantation Scheme commitments with budgetary allocations shall be included in EIA report for :

- ✓ Comprehensive green belt plan with commitment that entire plantation shall be carried out in the initial three years and will be maintained thereafter with causality replacement. Proposal for distribution of fruit bearing species for nearby villagers shall also be incorporated in the plantation scheme and for which a primary survey for need assessment in concerned village shall be carried out.
- ✓ Commitment that plantation shall be carried out preferably through Govt. agency (such as Van Vikas Nigam / Van Samiti under monitoring and guidance of Forest Range officer with work permission from DFO concerned / Gram Panchayat / Agricultural department or any other suitable agency having adequate expertise as per the budgetary allocations made in the EMP.
- ✓ Commitment that high density plantation (preferably using "Miyawaki Technique or WALMI technique) shall be developed in 7.5m barrier zone left for plantation through concern CCF (social forestry) or concerned DFO or any other suitable agency.
- ✓ Commitment that local palatable mixture of annual and perennial grass and fodder tree species shall be planted for grassland/fodder development on degraded forest land suitable for the purpose through Gram Panchayat on suitable community land in the concerned village area and handed over to Gram Panchayat after lease period.
- ✓ PP shall explore the possibility for plantation in adjoining forest land in consultation with concerned DFO and commensurate budget shall be transferred for plantation to DFO.
- ✓ Where ever Aushadhi Vatika (Medicinal Garden) is proposed by PP, minimum 50 saplings be planted considering 80% survival.

FOR PROJECTS LOCATED IN SCHEDULED (V) TRIBAL AREA , following should be studied and discussed in EIA Report before Public Hearing as per the instruction of SEIAA vide letter No. 1241 dated 30/07/2018.

35. Detailed analysis by a National Institute of repute of all aspects of the health of the residents of the Schedule Tribal block.
36. Detailed analysis of availability and quality of the drinking water resources available in the block.
37. A study by CPCB of the methodology of disposal of industrial waste from the existing industries in the block, whether it is being done in a manner that mitigate all health and environmental risks.
38. The consent of Gram Sabha of the villages in the area where project is proposed shall be obtained.


Documents to be submitted:

Environmental Consultant / PP

- I. A certificate from the Consultant shall be submitted that they have been accredited by MoEF (GoI), as per their OM.
- II. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
- III. Location of National Parks, Sanctuaries, biosphere Reserves, Wildlife corridors, Tiger reserves (existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated. A location map duly authenticated by Chief Wild life Warden and recommendation/ comments of Chief Wildlife Warden of concerned district should also be provided in this regard. DFO letter indicating the distances of nearest forest boundary from the boundary of the proposed site.
- IV. Land documents of the proposed site with clarity of landownership.
- V. NOC from Gram Sabha if located in scheduled notified area.

Validity –

- I. The TORs prescribed for the project will be valid for a period of four years for submission of EIA and EMP report accordingly, the TORs will lapse after 09/12/2025.

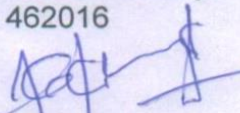

(Shriman Shukla)
Member Secretary

Copy to:-

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12/1/22

- (1). Principal Secretary, Department of Environment., Government of MP, Mantralaya Vallabh Bhawan, Bhopal.
- (2). Member Secretary, SEAC, Research and Development Wing Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony Bhopal-462016.
- (3). Member Secretary, Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal-462016.
- (4). The Collector, Distt- Bhopal (M.P.).
- (5). Regional Officer, Regional Office (WZ), Ministry of Environment & Forests, Kendriya Paryavaran Bhawan, Link Road No.-3, E-5, Arera Colony, Bhopal (M.P.) - 462016
- (6). Guard file.


(Alok Nayak)
Officer-in-Charge

