

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN BENCH AT CHENNAI
ORIGINAL APPLICATION NO. 196 OF 2021

IN THE MATTER OF:

T.M UMSHANAKAR

...APPLICANT

VERSUS

UNION OF INDIA AND ORS.

...RESPONDENT(S)

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THROUGH

SANJEET PUROHIT/ SOUMYA VAISHY
ADVOCATES
COUNSELS FOR RESPONDENT NO. 5

Place: Bengaluru

Date: 05.02.2022

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BRIEF RESPONSE TO THE REPLY BY RESPONDENT NO. 6

1. That the above-mentioned Application has been filed by the Applicant alleging violations by the Answering Respondent in setting up and running of Integrated Common Hazardous Waste Treatment Storage and Disposal facility (hereinafter referred to as ICHWTSDF) at Karnataka Waste Management Project. The Applicant has also alleged violations of the EIA Notification, 2006, Office Memorandum dated 29.08.2016 issued by Central Pollution Control Board (hereinafter referred to as CPCB), Tippagondanahalli Reservoir Notification dated 18.11.2003 (hereinafter referred to as TGR Notification) and violation of the order dated 26.09.2019 passed by the Hon'ble NGT in O.A 654 of 2019.
2. That the present reply is being filed in response to the reply affidavit filed by Respondent No. 6, i.e., CPCB and is limited to the averments that are necessary for adjudication of the above-mentioned Application.
3. That any and all averments unless specifically admitted should be deemed to be denied by the Answering Respondent.
4. That Para 1 and 2 of Parawise comments of Respondent No. 6's reply affidavit merit no response.
5. That Para 3(a) of Parawise comments of Respondent No. 6's reply affidavit are admitted wholly, however with regards to refusal by KSPCB for Consent for Operation (hereinafter referred to as CFO) dated 06.02.2018, it is submitted that the same was challenged before the Appellate authority. It is submitted that the integrated Common Waste Hazardous Treatment, Storage and Disposal Facility (hereinafter referred to as ICHWTSDF/ facility) received CFO in 2019 valid from 01.08.2019 till 30.06.2024. Further, the facility has recently received



another extension from 01.07.2021 till 30.06.2026. Thus, Respondent No. 5 has a valid and requisite CFO to operate the facility.

6. That Para 3(b) of Parawise comments of Respondent No. 6's reply affidavit are a matter of fact as they relate to the observations and recordings of the Joint committee, created by this Hon'ble NGT vide order dated 26.9.2021, in its report submitted on 01.12.2021. However, with regards to the recording of the Joint Committee in its report that "Landfill shall be at least 500 M from a notified habituated area and a Zone of 500 m around a landfill boundary should be declared a no-development buffer zone after landfill location is finalized.", it is submitted that the facility is exempted under the guidelines on "Criteria for Hazardous Waste Landfills". That the above-mentioned guidelines have categorically stipulated at Point 3 (viii) that "site selection procedure shall not be applicable for location of facility within industrial areas of State Industrial Development Agencies. However EIA requirement will apply." That the facility of Respondent No. 5 has been established within the compounds of an earmarked industrial area which belong to Karnataka Industrial Area Development Board. Since the unit is within an industrial area, it is exempted from adhering to the site selection criteria stipulated in these guidelines. That despite having been exempted, the facility has nonetheless followed the site selection criteria as enumerated in these guidelines. A copy of the relevant portion of Criteria for Hazardous Waste Landfills guidelines is annexed herewith as Annexure - I.

That the Joint Committee in its report has found the facility to be ecologically sound and in accordance with all the environmental laws. It is submitted that the site/ location was elected and finalized by the state agencies and it was allocated by these state agencies to the answering respondent for establishment and operation of the facility and the site selection meets all the requisite criteria and is thus in consonance with all laws.

7. That Para 3 to Para 17 of Respondent No. 6's merit no response, other than a reiteration of Para 2 and Para 3 of this reply in response to comments specified in Para 3 of Respondent No. 6's reply affidavit.

PRAYER

It is humbly prayed that the afore-said reply be taken into consideration while deciding OA No 196 of 2021 and orders maybe passed as this Hon'ble tribunal deems fit.



THROUGH

SANJEET PUROHIT/ SOUMYA VAISHY
ADVOCATES
COUNSELS FOR RESPONDENT NO. 5

Place: Bengaluru

Date: 05.02.2022


DEPONENT


VERIFICATION

I, Amit Chaudhary, S/o Late A.M Chaudhary, having my R/o at 25/20, 2nd Cross, Raghavendra Nagar, Hennur Ring Road, Kalyan Nagar, Bengaluru-560043, aged about 53 years am the Authorized Signatory of Respondent No. 5 and do hereby verify and affirm that the contents from Para 1 to Para 7 of the present reply are true to the best of my knowledge and belief.

Verified at Bengaluru on this 5th day of February 2022.


DEPONENT


CRITERIA FOR HAZARDOUS WASTE LANDFILLS

CRITERIA FOR HAZARDOUS WASTE LANDFILLS

1.0 APPLICABILITY

The criteria stated hereafter apply to owners and operators of facilities that dispose hazardous waste in landfills. The term hazardous waste landfill (HW Landfill) is used to designate a waste disposal unit designated and constructed with the objective of minimum impact to the environment. This term encompasses other terms such as "secured landfill", "engineered landfill", "waste mounds", "waste piles" etc.

2.0 LOCATIONAL CRITERIA

HW Landfills shall not be located within a certain distance of the following lakes, ponds, rivers, wetlands, flood plains, highways, habitation, critical habitat area, water supply wells, Airports, coastal zone. If it is absolutely essential to site a landfill within the restricted zone, then appropriate design measures are to be taken and prior permission from the SPCB/PCC should be obtained.

- a. Lake or Pond: No landfill shall normally be constructed within 200 m of any lake or pond. Because of concerns regarding runoff of waste contaminated water, a surface water monitoring network with approval of SPCB/PCC shall be established.
- b. River: No landfill shall be constructed within a 100 m of a navigable river or stream.
- c. Flood Plain: No landfill shall be constructed within a 100-year flood plain. A landfill may be built within the flood plains of secondary streams if an embankment is built along the streamside to avoid flooding of the area. However, landfills must not be built within the flood plains of major rivers unless properly designed protection embankments are constructed around the landfills.
- d. Highway: No landfill shall be constructed within 500 m of the right of way of any state or national highway.
- e. Habitation: A landfill site shall be at least 500 m from a notified habitated area. A zone of 500 m around a landfill boundary should be declared a no-development buffer zone after the landfill location is finalized.
- f. Public Parks: No Land fill be constructed within 500 m of public park.
- g. Critical Habitat Area: No landfill shall be constructed within critical habitat areas including reserved forest areas. A critical habitat area is defined as the area in which one or more endangered species live. It is sometimes difficult to identify a critical habitat area. If there is any doubt then the SPCB/PCC shall be consulted for clarification.

- h. Wetlands: No landfill shall be constructed within wetlands. It is often difficult to identify a wetland area. Maps may be available for some wetlands, but in many cases such maps are absent or are incorrect. If there is any doubt, then the SPCB/PCC shall be consulted for clarification.
- i. Airport: No Landfill shall be constructed within a zone around Airports as notified by the regulatory authority or the aviation authority.
- j. Water Supply: No landfill shall be constructed within 500 m of any water supply well.
- k. Coastal Regulation Zone: No landfill shall be sited in a coastal regulation zone.
- l. Ground Water table level: No landfill shall be located in areas where the ground water table will be less than 2 m below the base of the landfill.
- m. Other criteria may be decided by the planners in consultation with SPCB/PCC commensurate with specific local requirements such as presence of monuments, religious structures etc.

3.0 SITE SELECTION

Hazardous waste landfills should preferably be located in areas of low population density, low alternative land use value, low ground water contamination potential and at sites having high clay content in the subsoil.

A HW landfill will be selected following the guidelines published by MoEF. The step by procedure will be as follows:

- i. Earmarking a 'search area' taking into account the location of the waste generation units and a 'search radius' (typical 5 to 250 km). The search area will be so chosen that it minimizes the number of HW landfills in any region or state.
- ii. Identification of a list of potential sites on the basis of:
 - a. Availability of land
 - b. Collection of preliminary data
 - c. Restrictions listed in the locational criteria (section 2.0)
- iii. Collection of preliminary data as follows:
 - a. Topographic Maps: A topographic map will help find sites that are not on natural surface water drains or flood plains. Topographical maps may be procured from Survey of India.
 - b. Soil Maps: These maps, primarily meant for agricultural use, will show the types of soil near the surface. They are of limited use as they do not show types of soil a few metre below the surface. They may be procured from Indian Agricultural Research Institute.

- c. Land Use Plans: These plans are useful in delineating areas with definite zoning restrictions. There may be restrictions on the use of agricultural land or on the use of forest land for landfill purposes. Such maps are available with the Town Planning Authority or the Municipality.
- d. Transportation Maps: These maps, which indicate roads and railways and locations of airports, are used to determine the transportation needs in developing a site.
- e. Water Use Plans: Such maps are usually not readily available. A plan indicating the following items should be developed: private and public tubewells indicating the capacity of each well, major and minor drinking water supply line(s), water intake wells located on surface water bodies and open wells.
- f. Flood Plain Maps: These maps are used to delineate areas that are within a 100 year flood plain. Landfill siting must be avoided within the flood plains of major rivers.
- g. Geologic Maps: These maps will indicate geologic features and bedrock levels. A general idea about soil type can be developed from a geological map. Such maps can be procured from Geological Survey of India.
- h. Aerial Photographs / Satellite Imagery: Aerial photographs or satellite imageries may not exist for the entire search area. However, such information may prove to be extremely helpful. Surface features such as small lakes, intermittent stream beds and current land use, which may not have been identified in earlier map searches, can be easily identified using aerial photographs.
- i. Ground Water Maps: Ground water contour maps are available in various regions which indicate the depth to ground water below the land surface as well as regional ground water flow patterns. Such maps should be collected from Ground Water Boards or Minor Irrigation Tubewell Corporations.
- j. Rainfall Data: The monthly rainfall data for the region should be collected from the Indian Meteorological Department.
- k. Wind Map: The predominant wind direction and velocities should be collected from the Indian Meteorological Department.
- l. Seismic Date: The seismic activity of a region is an important input in the design of landfills. Seismic coefficients are earmarked for various seismic zones and these can be obtained from the relevant BIS code or from the Indian Meteorological Department.
- m. Site Walk Over and Establishment of Ground Truths: A site reconnaissance will be conducted by a site walk-over as a part of the preliminary data collection. All features observed in various maps will be confirmed. Additional information pertaining to the following will be ascertained from nearby inhabitants: (a) flooding

- during monsoons; (b) soil type; (c) depth to G.W. table (as observed in open wells or tube wells); (d) quality of groundwater and (e) depth to bedrock.
- n. Preliminary Boreholes and Geophysical Investigation: At each site, as a part of preliminary data collection, one to two boreholes will be drilled and samples collected at every 1.5m interval to a depth of 20m below the ground surface. The following information will be obtained: (i) soil type and stratification; (ii) Permeability of each strata; (iii) strength and compressibility parameters (optional); (iv) ground water level and quality and (v) depth to bedrock. In addition to preliminary boreholes, geophysical investigations (electrical resistivity/seismic refraction/others) may be undertaken to assess the quality of bedrock at different sites.
- iv. Selection of two best ranked sites from amongst the list of potential sites on the basis of the ranking system stipulated by MoEF (1991).
- v. Environmental Impact Assessment for the two sites for the following parameters.
- (a). ground water quality; (b) surface water quality; (c) air quality - gases, dust, litter, odour; (d) land use alteration; (e) drainage alteration; soil alteration; (f) soil erosion; (g) ecological impacts (h) noise; (i) aesthetics - visual, vermin, files; (j) traffic alteration; and (k) others
- vi. Assessment of public perception for the two sites.
- vii. Selection of Final site.
- viii. The above site selection procedure shall not be applicable for location of facility within industrial areas of State Industrial Development Agencies. However EIA requirement will apply.

4.0 SITE INVESTIGATION CRITERIA

The data collected during site selection is not sufficient for landfill design. To be able to undertake detailed design of a landfill at a selected site, it is essential to characterize the landfill site and evaluate the parameters required for design. It is necessary that all data listed in Section 3.0 (iii) on "preliminary data" be collected for site characterization. If some data has not been collected, the same should be obtained before site investigations are undertaken for characterization. The following additional data will be collected through a detailed site investigation programme at the chosen site.

A detailed site investigation programme will comprise of subsoil investigation, ground water/hydrogeological and geological investigation. The output expected from each investigation is listed below;