

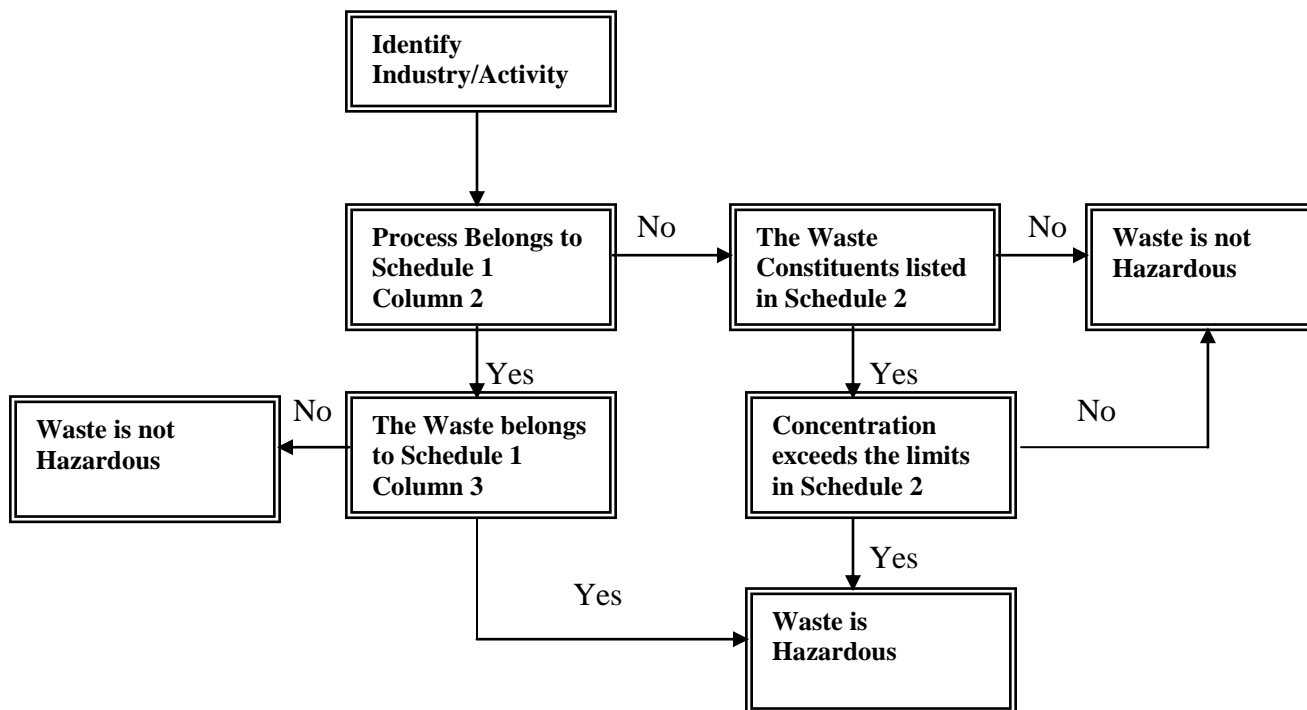
# REVISE INVENTORISATION OF HAZARDOUS WASTES IN MEGHALAYA AS PER THE HAZARDOUS & OTHER WASTE (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016

## 1. Methodology for Inventorisation

The Board has conducted a comprehensive revised inventorization of hazardous waste generating industrial units in the state as per the Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016 and it appears that a number of units fall under the category of Scheduled I & Schedule IV of the rules. Information incorporated in this report was gathered by way of “Consent Form” documentation, site inspections and specific facts volunteered by representatives of the industrial units themselves.

For this purpose the algorithm, which is followed, is depicted in Fig 1, and tables were prepared with condensed information as indicated in the sample table attached in Table - 3.

**Figure 1**  
**ALGORITHM FOR HAZARDOUS WASTE IDENTIFICATION**



## 1.2 Hazardous Waste Generating Units

Hazardous Waste Generating Units has been identified on the basis of manufacturing processes and waste streams associated with the industry in terms of Schedule 1 and the list of Hazardous Wastes contained in Schedule 2 of the Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016.

The predominant industrial sectors identified as Hazardous Waste Generating Sectors (HWGSs) are Cement Manufacturing, Galvanizing, Metallurgical & Mining.

## 1.3 Category-wise Hazardous Waste Generation

As a result of industrial activities mentioned earlier, a total of 3(three) Hazardous Waste Streams is generated in the State viz. used/spent oil, zinc ash, zinc dross, acid residues, spent bath, The hazardous waste streams as categorised in Schedule 1 and Schedule IV of the said Rules with their respective classes, generated in the State, are shown in Table 1.

**Table – 1 CATEGORYWISE HAZARDOUS WASTE GENERATION IN MEGHALAYA**

Sl. No.	Waste Streams	Schedule	Class	Quantity per annum	Nature of waste (recyclable/incinerable/land disposable/others)
1.	Used Oil/Spent Oil	I	5.1	94.365 MT	•Recyclable
2.	Zinc Ash	I	4.5	342.82 MT	• Recyclable
3.	Acid Residues	I	12.1	10.25 MT	• Landfillable
Total quantity of Hazardous Wastes = <b>447.435 MT</b>					

The information in Table 1 attests to the fact that the 2(two) main hazardous waste streams in respect of the quantity of generation are Used Oil/Spent Oil and Zinc Ash. The total Hazardous Waste generation in the State is 447.435 MTA out of which 10.25 MTA is Landfillable and 437.185 MTA is Recyclable.

## **2. HAZARDOUS WASTE MANGEMENT**

### **2.1 Prevailing Hazardous Wastes Management Practices**

#### **(a) Handling and Storage**

The hazardous wastes in almost all the industries are being handled manually without any protective gears and in an unscientific manner. The general practices for storage of hazardous wastes followed by the industries are given below:

- Used oil from cement, metallurgical, mining and other units are collected in 200 litres drums and kept within plant premises.
- Acid residues are collected in bags and stored in a concrete lined pit.

#### **(b) Recycle/Reuse/Recovery**

It has been observed that some industries generating hazardous waste either reuse or recycle their wastes, while others sell their wastes to outside agencies for reuse or reprocessing. Reuse/recycling or reprocessing of some of the wastes being practiced in general in Meghalaya is described below:

- The used oil from cement manufacturing and mining are reused for initial firing of kilns in cement plants while some mild steel ingot manufacturing units uses used oil for lubrication of moulds. Some used oil is also used as fuel for reheating furnace.
- Zinc Ash sold to other parties for reuse.

#### **(c) Treatment**

Virtually no treatment process is being followed for hazardous wastes generated by the units.

#### **(d) Disposal**

Since, a centralized hazardous waste management facility is not in existence in the State of Meghalaya or the neighboring State, the units store their landfillable waste within their own premises in a concrete lined pit. The recyclable wastes are sold to registered recyclers for recycling.

## **5.2 Development Of Common Hazardous Waste Treatment Storage & Disposal Facility**

The matter for establishment of Common Waste Treatment Storage & Disposal Facility was taken in the 55<sup>th</sup> Board meeting dated 03.11.2011 and it was decided that Commerce & Industries Department will set up the said facility. Meghalaya Industrial Development Corporation was also requested to identify a suitable land. In this regard, a joint inspection was conducted by officials of the Meghalaya State Pollution Control Board, Meghalaya Industrial Development Corporation and Commerce & Industries Department to assess the suitability of three identified sites. Of the 3(three) sites inspected, accordingly Meghalaya Industrial Development Corporation Ltd. was informed that Site-II was found to be suitable and Environmental Impact Assessment needs to be undertaken before finalization of the site. Simultaneously, Commerce & Industries Department, Meghalaya was informed to apply for environmental clearance either from the MoEF&CC or SEIAA as per EIA Notification, 2006.