



# ILLEGAL DUMPING OF SCHEDULE WASTE

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## 1. Introduction

Manufacturing industry growth well in Malaysia's economic sector. Malaysia achieved a speeding up of the industrialization process of country through the exportation of goods. Malaysia also one of the world's leading exporters of electrical appliances, electronic parts and components, palm oils and natural gas. However, the rapid change of industrialization approaches to the change of environment. This approaches totally made a different change to the environment because due to the industrialization process which generates huge amount of wastes as Figure 1 below (Fariz Mohamed, 2009). Hence, it leads to environmental problems such as illegal dumping which the waste was disposed on the public or private without license or approval permit from government. Then the land is contaminated with the chemicals. Land contamination normally goes unnoticed.



**Figure 1** Illegal Dumping at Kelana Jaya

According to Regulation 2 in Environmental Quality (Schedule Waste) Regulation 20005 “schedule waste” is any waste falling within the categories of waste listed in the First Schedule. Illegal dumping happened when the SW is not properly managed by the company based on their waste handling and waste treatment. The insufficient management of SW treatment contributes to adverse effect to environment which is polluting water courses, ground water and land. It also can cause fire outbreak at dumping site because the SW is very reactive and hazardous.

## 2. Example of Scheduled Waste Category

No	Wastes category	SW code
1	Heavy metal sludge	SW 204, SW 105, SW 108
2	Pharmaceutical/ clinical	SW 404, SW 403, SW405
3	Batteries	SW 102, SW103
4	Oil and hydrocarbon	SW 305, SW 306, SW 307, SW 308, SW 309, SW 310, SW 311, SW 312, SW 313, SW 314, SW 315, SW 415

(Aja et al., 2016)

### **3. Environment Quality Act 1974**

#### **i. Prohibition and Control of Pollution**

##### Section 24 (Restriction on pollution of soil)

- (1) No person shall, unless licensed, pollute or cause or permit to be polluted any soil or surface of any land in contravention of the acceptable conditions specified under section 21.
- (2) Notwithstanding the generality of subsection (1), a person shall be deemed to pollute any soil or surface of any land if :
  - (a) He places in or any soil or in any place where it may gain access to any soil any matter whether liquid, solid, or gaseous; or
  - (b) He establishes on any land a refuse dump, garbage tip, soil and rock disposal site, sludge deposit site, waste-injection well or otherwise used land for the disposal of or a repository for solid or liquid wastes so as to be obnoxious or offensive to human beings or interfere with underground water or be detrimental to any beneficial use of the soil or the surface of the land.
- (3) Any person who contravenes subsection (1) shall be guilty of an offense and shall be liable to a fine not exceeding one hundred thousand ringgit or to imprisonment for a period not exceeding five years or to both and to a further fine not exceeding one thousand ringgit a day for every day that the offence is continued after a notice by the Director General requiring him to cease the act specified therein has been served upon him.

**ii. Prohibition against placing, deposit, etc., of scheduled wastes**

Section 34B

(1) No person shall :

- (a) Place, deposit or dispose of, or cause or permit to place, deposit or dispose of, except at prescribed premises only, any scheduled wastes on land or into Malaysian waters;
- (b) Receive or send, or cause permit to be received or sent any scheduled wastes in our of Malaysia; or
- (c) Transit or cause or permit the transit of scheduled wastes,

without any prior written approval of the Director General.

(2) The Director General may grant the written approval either subject to conditions or unconditionally.

(3) For the purpose of this Act, any act of receiving or sending, or transit of any scheduled wastes with an approval obtained through falsification, misrepresentation or fraud or which does not conform in a material way with the relevant documents in such form as may be prescribed, shall be an offense.

(4) Any person who contravenes this section shall be guilty of an offense and shall be liable to a fine not exceeding five hundred thousand ringgit or to imprisonment for a period not exceeding five years or to both.

#### **4. Categories of Scheduled Wastes under First Scheduled Environmental Quality (Scheduled Wastes) Regulations 2005**

- i. SW 1 : Metal and metal-bearing wastes
- ii. SW 2 : Constituents containing principally inorganic constituents which may contain metals and organic materials .
- iii. SW 3 : Waste containing principally organic constituents which may contain metals and inorganic materials
- iv. SW 4 : Wastes which may contain either inorganic and organic constituents.
- v. SW 5 : Other wastes.  
(Environment, 2020)

#### **5. Management of Scheduled Wastes**

Environment Quality Act of 1974 is a provision for prevention, abatement, control and protection of the environment, which is administered by the Department of Environment (Artika H et al., 2019). A facility that generates, stores, transports, treats or disposes of scheduled wastes is subjected to a comprehensive legal requirement that stipulated in the Environment Quality (Scheduled Wastes) Regulations 2005. In addition, according to the regulation the scheduled wastes can be stored in 180 days or less after its generation provided that the quantity of scheduled wastes accumulated on site shall not exceed 20 metric tons. If the waste generator wants to store more than 20 metric tons they should apply a writing application to the Director General of Department of Environment (DOE).

Furthermore, scheduled wastes should be transported to established managing facilities that have licensed by DOE. The treatment of scheduled wastes includes recovery, final disposal and incineration. In Malaysia, Kualiti Alam Waste Management Centre (WMC) one of facilities that holds the license to handle 76 categories of 77 scheduled wastes listed under Environmental Quality (Scheduled Wastes) Regulation 2005. They are responsible to store, treat and dispose more than 100,000 tons of classes of hazardous wastes annually except for radioactive wastes, pathological wastes and explosive waste (Cenviro, 2020). Then, the facilities by WMC comprise of incineration plant, solidification plant, physical and chemical treatment plant, secured landfill and clinical waste treatment center.

## 6. Case in Malaysia



**Figure 2** Barrels contain chemical waste along Sungai Masai adjacent to Pasir Gudang-Johor Bahru Highways on 18 March 2019. (Ben, 2019)



**Figure 3** Illegal of hazardous chemical in Kampung Tambak, Selangor on 26 November 2019. (Aiman, 2019)

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