

(Garuda Emblem)

**Notification of Ministry of Industry**

**Subject: Duty of lead smelter from used batteries  
regarding management of wastes and unusable materials**

-----

By the virtue of clause 13(1) and clause 13(2) of the Ministerial Regulation No. 2 (B.E. 2535 (1992)), issued pursuant to the Factory Act B.E. 2535 (1992), requires that a factory must be kept clean and without waste and garbage at all time, and there must be a place to contain or a place to dispose of waste and garbage as necessary and appropriate. Waste or garbage contaminated with hazardous substances or cloth cotton or thread remnants smeared with flammable substances must be stored in a separate container that is proper and has a tight lid and the specific disposal of the said items must be provided with the safe method and it does not cause any disturbance and nuisance.

For a lead smelter from used batteries to manage its waste efficiently and to prescribe a practical implementing guideline for a lead smelter, a lead smelter shall have duty as follows:

Article 1       Dusts from dust control device shall be managed to prevent its dispersion and distribution prior to recycling back to the smelting process. To dispose of the dust, technical detail of disposal method shall be submitted to Department of Industrial Works for approval.

Article 2       Slag from the smelting process shall meet the following criteria.

- (1)       Shall be in solid form with the density not less than 1.15 tons per cubic meter and to withstand pressure of at least 3.5 kilograms per square centimeter.
- (2)       Shall be water insoluble, and shall not be flammable, corrosive, or reactive material.
- (3)       Its leachate or extraction shall have concentration of lead not more than 5.0 milligrams per liter, using Leachate extraction procedure.

The slag with prescribed characteristics can be stored in a facility premise such that the inspection can be done at all time. The monitoring of lead contamination shall be done on a

regular basis. The slag with characteristic fail these criteria shall be stabilized until it meets the criteria.

Article 3      Lead-contaminated sludge from wastewater treatment system, dross, and other leaded sludge shall be disposed of in smelting oven, or shall be stabilized prior to secure landfill.

Article 4      Plastic scrap from batteries, that can be recycled or recovered, shall be washed and cleaned to get rid of lead contamination. If wish to dispose of by other methods, an approval from Department of Industrial Works is required.

Article 5      Unusable materials, cover and other parts of batteries that may be contaminated with lead shall be disposed of in smelting oven. If wish to dispose of by other methods, an approval from Department of Industrial Works is required.

Announced on the 27<sup>th</sup> April B.E. 2544 (2001)

(signed)\_\_\_\_\_

(Mr.Manu Leoungpairoj)

Permanent Secretary of Ministry of Industry

(Published in the Government Gazette, Volume 118, Special Part 58d, dated 20<sup>th</sup> June B.E. 2544 (2001))