

# e-Briefing on **Sludge Regulations**

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## Sludge Regulations

### Legal requirements of Sludge Management in some Countries

The legal framework for treatment and disposal of sludge for any country concerns legal limits, permitted disposal routes, operating permits, occupational safety and health protection, documentation and reporting obligations, soil, water and emission protection. While establishing disposal concept sludge producers have to be aware of the current legislations and act in full compliance with it.

Sludge also comes under solid waste, hazardous waste or biosolids in different countries. In February 2015, Bangladesh Standards and Guidelines for Sludge Management was published by Department of Environment. Some aspects of that guidelines were published in earlier eBriefings in June and July.

In this context, overview of some international legal requirements regarding sludge management is given below-

### Basel Convention

The Basel Convention ([www.basel.int](http://www.basel.int)), is the key to the most legislations on hazardous waste and their disposal. This treaty was initiated on 1989, Ban Amendment was adopted in 1995 and came into force in 2011. The main features of the Basel convention is the classification of hazardous waste generating industry, waste with hazardous constituents, hazardous waste stream and the control of transboundary movements of these hazardous wastes.

### India

The Hazardous Wastes (Management and Handling) Amendment Rules, 2002 was published under the notification of the Government of India in the Ministry of Environment and Forests number S.O. 553(E) in the Gazette of India and include the followings-

- Hazardous waste management should be controlled by State Pollution Control Board which will grant permission for management and handling of hazardous wastes on any land.
- The State Government, operator of a facility or any association of occupiers shall jointly be responsible for treatment, storage and disposal of hazardous wastes in the State.
- Applications as landfilling, fuel (biogas) and utilization in building and construction materials production are practiced in India.

### China

- The responsible departments of government shall formulate a plan for the prevention of environmental pollution caused by industrial solid waste in country level of above.
- It was reported that 3.3m hectares of land are unsuitable for agricultural use due to higher level of pollution than the national standard.
- In Beijing, 70% of the sludge is stored in factory whereas the major disposal mode of sludge in Shanghai is incineration.
- The main disposals of sludge in Chongqing are building materials, landscaping, land use, reclamation and landfill.

### European Union

The new Waste Framework Directive (Directive 2006/12/EC) is the legal valid version of the Waste Framework Directive which includes that Member states shall take necessary steps to-

- Reduce waste production and its harmfulness by the development of clean technologies.
- Prohibit the abandonment, dumping or uncontrolled disposal of waste.
- Ensure that waste is recovered or disposed of without endangering human health and environment.

The Sewage Sludge (Directive 86/278/EEC) seeks to encourage the use of sewage sludge in agriculture and to regulate its use in such a way as to prevent harmful effects on soil, vegetation, animals and man.

### United States EPA

US EPA part 503 rules provides comprehensive requirements for the management of biosolids generated during wastewater processing.

- Hazardous wastes must be stored in containers, tanks, containment buildings, drip pads, waste piles, or surface impoundments.
- The most common type of disposal facility is a landfill, in carefully constructed units designed to protect groundwater and surface water resources.