Hazardous Waste Management

Egypt

Hazardous Waste Production

- **Industrial Hazardous Waste**: 79,370 tonnes per year generated by the two major industrial cities of Alexandria (2,370 tonnes) and the Greater Cairo Area (77,000 tonnes).
- **Medical Hazardous Waste**: 15,000 tonnes per year (recent estimate of all medical establishments in the country).

Hazardous Waste Management

- Common practices include:
  - Selling waste through auction or specific contractors without consideration for the content or final destination of the waste. This practice distances waste generators from responsibility for the waste created.
  - Waste disposal in public dumps.
  - Illegal dumping in vacant lots and public places.
  - Discharging into the sewer network.
  - Open burning.

- Three tones of medical waste is generated daily. Since October 2000, ten incinerators have become operational in ten hospitals, though most medical waste is still disposed with municipal waste. A central unit for sterilization of medical waste has also been put into operation as part of this pilot project.

Legal Framework

- Limits for safe emissions from medical waste incinerators were issued by the Egyptian Environmental Affairs Agency in 2000/2001.
- A Ministerial Decree detailing medical hazardous waste was issued and a related management and permit system was put in place in 1997.
Institutional Framework

According to Law No. 4/1994, roles and responsibilities are shared among:

- **The Egyptian Environmental Affairs Agency** (EEAA) reviews permits for waste handling issued by line ministries (see next), approves on-site waste treatment systems, follows up on waste generators’ registers of waste production, establishes regulation, evaluates Environmental Impact Assessment studies, and carries out other related responsibilities.

- **The six line ministries of agriculture, industry, health, petroleum, electricity, and interior** are responsible, in coordination with the EEAA, for issuing hazardous waste lists and handling permits; conducting inspections; and reviewing and sanctioning emergency plans in the event of an accident.

- **The Regional Training Center** is responsible for transferring clean technologies and managing hazardous waste, education, training, and promotion.

Disposal Facilities

- Hazardous waste treatment and landfill facilities in Egypt are inadequate with the exception of a site utilized by the Coal and Primary Chemical factory in the Greater Cairo Region.
- A hazardous waste landfill project is under construction in Alexandria, and another one is under preparation for Greater Cairo (study carried out in 2000).
- A pilot project for medical waste incineration in Cairo has become operational.

Overall Assessment and Options for Improvement

- A monitoring and reporting mechanism should be established to estimate the quantities of hazardous waste generated and assist in establishing policies.
- Law No. 4/1994 should be amended to define the responsibilities of the various agencies involved and to eliminate confusion and duplication especially with respect to the responsibilities of the EEAA.
- There is a need to set up specific hazardous waste management offices in both Alexandria and Cairo due to the high number of industrial facilities there.
- Training programs should be designed to address (i) health risks associated with pollutants; (ii) waste minimization techniques, recycling technologies and approaches; (iii) treatment technologies and disposal safety measures; and (iv) the legal and regulatory environment.
- Provide in-plant information and awareness on industrial hazardous waste management, reduction, and clean production for waste generators.
- Strengthen cooperation with neighboring countries, through METAP, especially in training and awareness program development, data collection, and experience and knowledge sharing.