Jordan

Hazardous Waste Production

- **Industrial Hazardous Waste**: 25,600 tonnes in 2002, estimated to increase to 52,780 tonnes annually by 2015. Main components: waste oils and heavy metals.
- **Medical Hazardous Waste**: 3,470 tonnes in 2002, estimated to increase to 5,100 tonnes annually by 2015.

Hazardous Waste Management

- Most hazardous waste is stored at the production site or dumped with domestic solid waste into landfills not designed to contain hazardous waste.
- Lack of data regarding quantities and types of hazardous waste.

Legal Framework

- Public Health Law No. 54 (2002) requires monitoring of all medical waste generated by the country’s medical facilities.
- There is no specific law covering hazardous industrial waste management although some progress has been made with the introduction of Regulation No. 43 (1999), The Management and Circulation of Harmful and Hazardous Materials.
- Law No. 12 (1995), The Law on Environmental Protection, provided some guidance on hazardous waste since it included requirements to protect the environment (air, soil and water). This law was replaced in early 2003 with Environmental Protection Law No. 1. The new law’s requirements for hazardous industrial waste management are more precise.
- A new regulation on Environmental Impact Assessment (EIA), drafted in collaboration with GTZ in 1997, is expected to be ratified in early 2003.

Institutional Framework

- The General Corporation for Environmental Protection which, until recently, was responsible for the administration of all matters concerning hazardous waste, has been dissolved and its responsibilities have been transferred to the new Ministry of the Environment created in January 2003. The Ministry of Health through its Environmental Health Directorate regulates the management of hazardous medical waste.
**Disposal Facilities**

- A central hazardous waste treatment and disposal facility is in the final planning stages. Its proposed location is in the Tuba region.
- The initial storage capacity of the proposed facility will be minimal (around 3,000 tonnes). The next phase of the project, adding the incinerator and the wet chemical treatment plant, will provide additional treatment capacity of 15,000 to 30,000 tonnes per year. The construction costs for the next phase are estimated to US$15-20 million. An additional US$10 million is also needed to construct a road to link the Amman-Aqaba highway to the site.

**Overall Assessment and Options for Improvement**

- A monitoring and reporting mechanism should be established to estimate the quantities of hazardous waste produced in the country, to better understand treatment and disposal practices and to identify the most important hazardous waste issues requiring urgent attention.
- Private sector involvement in hazardous waste management should be encouraged through incentive measures.
- There is an urgent need to develop a comprehensive regulatory framework for hazardous waste with clear and realistic standards applicable to all industrial facilities in Jordan and taking into consideration regional standards. Issuance of specific standards and control limits on key hazardous waste such as heavy metals and persistent organic pollutant (POP) pesticides should be emphasized.
- A formal and intensive training program for all Ministry of Environment and relevant staff of other ministries in Amman and in all regional offices should be developed and implemented. Critical training areas include:
  - Health risks associated with pollutants.
  - Waste minimization techniques and recycling technologies and approaches.
  - Treatment technologies and disposal safety measures.
  - Legal and regulatory environment.
- For hazardous industrial waste generators, provide in-plant information and awareness on hazardous waste management, reduction and clean production.
- Cooperation with neighboring countries in the field of hazardous waste management, through the METAP program, should be improved. For instance, beneficial cooperation can be achieved through training and awareness program development and data, experience and knowledge sharing.