



## International Middle East

### Client

Qatar Liquefied Gas Company Ltd.  
(Qatargas)

### Location

Doha, Qatar

## Hazardous Waste Management and Storage Facility Conceptual Design

### Project Description

CH2M HILL provided comprehensive waste management services for all aspects of waste generation and disposal at this liquefied gas plant, including the conceptual design of a hazardous waste storage facility. A key deliverable was the preparation of a waste management plan.

Actual waste generation, storage, and disposal conditions at the plant had varied from the estimated conditions described in the original environmental impact assessment and CH2M HILL was asked to review present and future potential sources of wastes. We were directed to focus on those wastes that could be considered hazardous and to develop conceptual design recommendations for a waste storage facility for hazardous and industrial wastes with the capacity to accommodate at least 5 years of normal waste generation.

A senior CH2M HILL waste management engineer conducted a 3-week site visit to gather data for the design. He reviewed records and existing documentation, interviewed key operations personnel, and inspected the site to determine the types and quantities of waste generated and to hear the opinions of administrative, management, and operating personnel on preferred handling, storage, and disposal methods. The resulting report reviewed waste management practices and offered recommendations for improvement. It included an assessment of the current regulatory regime; a listing of existing waste generation rates and storage capacity by plant area; predictions of future generation rates; recommendations for waste reduction, reuse and recycling; recommendations for waste handling, transport, storage and the preparation of a conceptual design; and a cost estimate for an interim storage facility for Class I hazardous wastes.

CH2M HILL then prepared a waste management plan for Qatargas, which included:

- Aims and objectives
- Regulatory background
- Identification of wastesheds
- Classification of waste types
- A description of a waste information database
- Waste characterization
- Waste management procedures (permit system, protective equipment, containers, labeling, storage, roles and responsibilities)
- Monitoring and reporting
- Pollution prevention and waste minimization
- Training
- Contractor requirements

