Introduction to Landfill Gas

The course is an interactive primer which provides a comprehensive introduction for anyone interested in gaining a greater understanding of landfill gas (LFG) related processes and issues at solid waste landfills. Participants will learn the fundamentals including concepts of LFG formation, subsurface migration and collection & control system design, construction & operations.

The course also provides an overview of LFG related US regulations, review of LFG combustion equipment (i.e. flares) and opportunities for development of LFG utilization projects (i.e. energy generation).

Objectives

Upon completion of this course, participants will have been introduced to and gained knowledge related to landfill gas including:

- Basic concepts of LFG formation including generation, composition and related physical processes
- The potential environmental and human health and safety impacts of LFG
- LFG migration, potential health and safety concerns and mitigative measures available to control landfill gas
- The types and purpose of active LFG collection and control systems including theory of design
- The basic elements involved in a LFG construction project
- The fundamentals of LFG monitoring, operations, and maintenance programs
- US Regulations related to LFG including air regulations, GHG reporting and typical permitting requirements
- LFG combustion flares including theory of operation, flare design and the types of flares
- LFG utilization/energy projects including types of projects, generation equipment and the typical project development process

Who Should Attend

This course is best suited for landfill operations managers, public sector regulators, public or private sector professionals responsible for management of landfill facilities and technical professionals, engineers and consultants. It is highly recommended that you complete the Introduction to Landfill Gas before taking this course.

Course Content

This course taught by several instructors, each experienced industry professionals with specialized expertise in a specific segment of the LFG industry. The LFG Basics course is divided into eight (8) approximately 45-minutes modules as follows:

1. Introduction to landfill gas
2. LFG regulations
3. LFG migration
4. Active LFG extraction (collection) systems
5. Flare blowers
6. LFG Utilization
7. LFG System construction
8. LFG System monitoring, operations and maintenance

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