

Featured Project

Anderson Landfill Leachate

Anderson, California

ArcSine Engineering developed an Electrical Master Plan for the 246-acre Anderson Landfill. The Master Plan included provisions for a Leachate Collection Recovery System for an existing landfill cell and for construction of two additional cells. The Plan also included an evaluation of the existing power distribution system and recommendations for upgrades to support future loads; recommendations for extensive site lighting upgrades; evaluation of the existing standby power system and upgrade recommendations; power provisions for a new scale house; a radio data communication system; and a gas extraction system.

ArcSine Engineering provided both mechanical and electrical design documents for the addition of a second automated Leachate Collection Recovery System. The project included coordination with Pacific Gas and Electric (PG&E) to install a new electrical service entrance. Design criteria dictated that the pumping system be easily relocated to a new location following the decommissioning of the existing cell.

Project-specific features:

Electrical:

- Design new 480-volt system including poles and overhead conductors.
- Electrical installations to meet National Electrical Code requirements for Class 1, Divisions 1 and 2, Groups C and D.
- Coordinate with PG&E and support the evaluation process of the existing pole-mounted transformer.
- Coordinate with Waste Management and generator supplier for plug and cord connector.

Mechanical:

- Size leachate tank and pumps for design flows and pressures.
- Size all piping for anticipated pump flow and head conditions.
- Design storage tank, pumps, flowmeter, pump control valves, pipe, and appurtenant components.
- Develop construction contractor responsibility table.

Instrumentation/Controls:

- Develop control strategy and control diagram.
- Specify instrumentation suitable for the classified environments.

Electrical
Mechanical
Lighting Design
Power Distribution
Construction Services
Controls
Master Planning
Water/Wastewater
Instrumentation

