



## Landfill Gas Recycling Facility Design

CLIENT - Allegheny Energy, Inc.

LOCATION - Southwest and Central, PA

COMPLETED - 1999

### DESCRIPTION

Matrix PDM provided multidiscipline design services, including preliminary screening, a layout study and detailed design engineering. Additional construction support services were also provided, including review of bid submittals, review of vendor drawings and on-site construction monitoring as needed.

The design was provided for different installations to extract landfill gas from underground wells, and two different plant configurations were designed. The project intent was to collect the gas, dewater, remove CO<sub>2</sub>, compress and inject it into a natural gas pipeline. Design capacity of each location was five million standard cubic feet per day.

### WORK SCOPE

- Designed process buildings, pipe rack structures, and all associated foundations
- Provided electrical design for power distribution including substation and switchgear
- Worked with client to define developing technology by preparing PFDs, P&IDs and equipment arrangements
- Modeled equipment arrangement and piping design using PDMS modeling software
- Generated piping isometrics with complete B/Ms from the electronic model
- Sized and specified all process equipment for each plant configuration including blowers, compressors, refrigeration units, thermal oxidizers, and instrumentation
- Prepared piping orthographics
- Reviewed all submitted vendor drawings, equipment bids and provided technical equipment evaluation
- Provided construction monitoring "as needed"

### FOR MORE INFORMATION:

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