**Career connections**

**Gas Generation System Technician**

**Description:** Monitor, operate, and maintain landfill gas collection system components and environmental monitoring and control systems. Perform routine maintenance or minor repairs to landfill gas collection systems. Download landfill gas well field monitoring data.

Combination of education, on-the-job training, and experience. The median annual wage for salaried methane/landfill gas collection system technicians was $58,390 in 2019 (lowest 10% earned ~$30,220/year; top 10% earned ~$73,930/year).

**Education required:** An entry-level position requires at least a high school diploma or vocational school degree. Employers prefer candidates with strong computer and technical skills. With production operation and management experience, one can advance to methane/landfill gas collection system operator.

**Biological Scientist**

**Description:** Develop novel biological pathways to transform biomass (and waste streams) into fuel or high-value chemical products. Mean annual wage: $75,590

**Education required:** Master’s degree in Biology, Biochemistry, Cellular Biology, Computational Biology, Genetics, Microbiology, Molecular Biology, or a related field is preferred.

**Chemical Engineer**

**Description:** Chemical engineers translate processes developed in the lab into practical applications for the commercial production of products and then work to maintain and improve those processes. The main role of chemical engineers is to design and troubleshoot processes for the production of chemicals, fuels, foods, pharmaceuticals, and biologicals. Mean annual wage: $108,770.

**Education required:** At a minimum, a four-year bachelor’s degree in chemical engineering is required. Most chemical engineers have a master’s degree and/or a Ph.D. Most of a chemical engineer’s knowledge of real-world applications is derived from on-the-job training, so internships and practical experience are essential.

**Process Engineer**

**Description:** Support the advancement and further scale-up of a biomanufacturing technology. Provide hands-on support to pilot testing. Record, organize, and analyze data and present results and recommendations for future testing and equipment modifications. Manage a team of plant operators/lab technicians. Average annual salary: $108,272

**Education required:** Bachelor’s degree in Chemical/Biochemical Engineering. Five or more years of professional experience including hands-on operational experience.

**Job opportunities**

1. **Position:** Plant Manager/ Process Engineer

**Company:** Mango Materials

**Description**: “Mango Materials is a start-up company working to produce environmentally

friendly, biobased, biodegradable polymers from waste greenhouse gases. We

are seeking a Process Engineer/Plant Manager to join an energetic, multidisciplinary team of scientists and engineers. This person will support the advancement and further scale-up of a novel gas biomanufacturing technology to meet commercial targets by managing our Launch Facility. This position is based at the Silicon Valley Clean Water wastewater treatment plant in Redwood City,

CA.”

**Experience required:**

• Bachelors degree in Chemical/Biochemical Engineering

• Five or more years of professional experience including hands-on operational experience

• Familiarity with concepts and equipment of unit operations such as anaerobic digestion, fermentation, centrifugation, filtration, and solvent extraction

• Ability to use chemical engineering concepts to design and optimize unit operations and overall manufacturing process

• Ability to lift 25 to 50 pounds

• Comfortable ascending ladders and working at heights

• Availability to work on occasional weekends and evenings

• Ability to work with pilot scale equipment utilizing mechanical aptitude and trouble shooting skills. Experience with instruments and automated controls desirable.

• Excellent written and verbal communication and personal interaction skills

• Ability to work in safety manner in compliance with company and facility policies

**Link**: <http://mangomaterials.com/wp-content/uploads/2019/02/2019-Plant-manager-process-engineer_Mango-Materials.pdf>

1. **Position:** Power Generation Technician

**Company:** Diesel Service and Supply

**Description**: “Generator Source/Diesel Service & Supply is a currently looking to add an experienced Power Generation Technician. We are a family owned company located in Brighton, Colorado that has been in the power generation industry for over 35 years. Our focus is on low-hour, industrial, diesel and natural gas generators for backup and emergency power that typically range from 20 kW to 4000 kW. We only work with top name brands like Cummins, Caterpillar, Kohler, Generac, John Deere, Baldor, MTU Onsite Energy and more. We are searching for a career oriented individual with a focus on customer service.”

**Experience required:**

* In-depth understanding of diesel engine and/or generator technology
* Ideal candidates will have 3+ years of experience working with commercial power generators
* Ability to diagnose and repair mechanical issues on diesel, natural gas and propane gensets
* Exceptional communication skills to work with a team and customers directly on occasion
* Proficient with estimating time required to complete tasks
* Experience working with large industrial power generation equipment
* EGSA tech or other various certifications are a plus but not required.
* Must have a valid Colorado Driver's License and a clean MVR
* Open to applications who do not have a high school diploma

**Link**: <https://www.indeed.com/cmp/Diesel-Service-and-Supply/jobs/Power-Generation-Technician-2cf94a3e8ef06ca2?sjdu=QwrRXKrqZ3CNX5W-O9jEvbHXnhvJLiacgq7ZkZhb5tm-PNHDQCV6pAfzn6MEwvxbXjCvthGQUzWD4fcuyGIvtlr1prVMh58uPESFcYFIcFLQtU7SikoobVO8Z9DbqTDd&tk=1df3s3fithocv803&adid=293009986&vjs=3>

1. **Position:** Lab Scientist

**Company:** Apex Lab Solutions

**Description**: “Looking for a lab scientist for Clinical assay development and verification. Must be very good with PCR, Molecular beacon design and experimental verification. Experience with next generation sequencing and LCMS QQQ is preferred.”

**Experience required:**

* Minimum requirement is bachelors degree in biological science: Biology or biochemistry.

**Link**: <https://www.indeed.com/cmp/Delaware-Diagnostic-Labs/jobs/Lab-Scientist-26df7b83376231d1?sjdu=QwrRXKrqZ3CNX5W-O9jEvU9bPglPJdX-_8uOSwrrEG7dHXEMBMZK84jpGvlhcJmOFSvM8Kfo0dfdNEUkaUr7ag&tk=1df3s8mh3hocv800&adid=297905183&vjs=3>

1. **Position:** Lab Technician

**Company:** Montrose Environmental Group, Inc.

**Description**: “Montrose Environmental Group, Inc. is a high-growth Environmental Services company offering (i) Measurement and Analytical services and (ii) Environmental Resiliency and Sustainability services to a diverse range of clients in industry and government throughout the United States and abroad. Our qualified engineers, scientists, technicians, associates and policy experts are proud of our ability to objectively help industry, the public and regulators work constructively together on environmental opportunities. Laboratory Technicians are responsible for performing tasks required to meet the expectations of our clients, in addition to efficiently and profitably generating defensible data in a timely manner. These tasks will be performed under the direction of a Group Leader: Preparation of samples for analysis; Preparation of reagents for lab use and/or shipment; Sample extractions; Determining the volume of samples; Cleaning of laboratory glassware; Maintaining clean laboratory areas; Maintaining organized records of sample preparation and analysis; Overhead projects designed to improve efficiency of, or accuracy of analyses; Assisting the Group Leaders and analysts in acquiring and inventorying consumables, chemicals, and parts for instrumentation; Comply with Enthalpy’s Quality Assurance Program and other policies; Comply with Enthalpy’s Health and Safety Plan; Other duties as assigned by the Group Leader or Lab Director .”

**Experience required:**

* Bachelor's degree in Chemistry, Biology, Environmental Science, or related field preferred
* Lab experience allows direct advancement to Tech II (academic lab counts)

**Preferred Skills:**

* Prior Laboratory experience preferred but not required as this is an entry level position
* Knowledge of analytical method, analytical instruments, general lab practices and lab safety
* Ability to work independently and in a team
* Good organizational skills and strong communication skills

**Link**: <https://www.indeed.com/viewjob?jk=444ab4cbb62553ce&tk=1df3sdv13hocv803&from=serp&vjs=3>

**References**

[Payscale](https://www.payscale.com/research/US/Job=Process_Engineering_Manager/Salary)

[American Chemical Society](https://www.acs.org/content/acs/en/careers/college-to-career/chemistry-careers/chemical-engineering.html)

[Bureau of Labor Statistics](https://www.bls.gov/oes/current/oes172041.htm)

[Department of Energy](https://www.energy.gov/eere/bioenergy/biological-scientist)

[Bureau of Labor Statistics](https://www.bls.gov/oes/2017/may/oes191029.htm)

[iSustainable Earth](http://www.isustainableearth.com/green-jobs/renewable-energy-job-profiles/methane-landfill-gas-collection-system-technician-jobs)

[Onet Online](https://www.onetonline.org/link/summary/51-8099.02)