

APTIM is committed to delivering exceptional construction quality assurance (CQA) services. We assist our clients in monitoring construction activities to ensure they are compliant with design and performance requirements. Our comprehensive approach includes field and laboratory testing for manufactured materials, as-built documentation, record keeping, and preparation of daily and weekly progress reports. Following construction, we compile the appropriate documentation into a construction certification report for submission to state or local regulatory authorities.

At APTIM, we proudly offer a comprehensive range of CQA services. We strive to meet or exceed standards by integrating cutting-edge technology and specialized methodologies. Our services are meticulously designed so the construction activities adhere to the highest standards of quality and compliance. Our expertise spans various specialties—including landfill and waste facility construction, earthwork, geosynthetics, landfill gas collection and control systems (GCCS) construction, and landfill gas (LFG) perimeter probes—highlighting our commitment to delivering superior quality and innovative solutions.

# LANDFILL AND WASTE FACILITY CONSTRUCTION

Our CQA approach to landfill and waste facility construction includes the following key components:

- Personnel and Laboratory Services
- Preconstruction Meeting
- Weekly Progress Meetings
- Project Administration and Technical Support
- Observations and Documentation

#### **EARTHWORK**

For earthwork projects, APTIM provides field observations and documentation that focuses on several key aspects, including:

- Visual Assessments
- Moisture Conditioning
- Processing and Compaction Equipment Coverage

We observe and document the condition of the finished surface and conduct field and laboratory testing at the specified frequency listed in the CQA plan. Furthermore, our CQA monitor performs on-site density testing and obtains samples for geotechnical testing at an independent laboratory in accordance with the CQA plan.



#### **GEOSYNTHETICS**

APTIM's CQA monitor oversees the geosynthetics process, confirming material delivery, storage, installation, and testing are conducted in accordance with the CQA plan, construction drawings, and technical specifications. Key activities include:

- Reviewing Manufacturer Quality Control Data
- Conducting Conformance Tests
- Shipping Materials for Testing
- Supervising Material Handling
- Documenting Observations and Test Results

Upon completion, we prepare a comprehensive final CQA report. This report details construction activities, test results, sampling locations, issue resolutions, design changes, asbuilt drawings, and photographs. APTIM also develops a compliance statement confirming adherence to the CQA plan, construction drawings, technical specifications, and design intent.



#### **GCCS CONSTRUCTION**

GCCS construction involves designing, installing, and managing GCCS to effectively collect and control LFG emissions. Our CQA monitor is responsible for observing work activities to verify they conform with the CQA plan, construction drawings, and technical specifications. Key items our CQA monitor observes include:

- Construction Crew
- Daily Objectives
- Required Surveys
- Well Drilling and Subsurface Conditions
- Cuttings Disposal
- Depth Measurements
- Backfill Placement

- Well Completion
- Bentonite Seals Installation
- Pipe Fusion
- Pressure Testing
- Piping Slope Inspection
- Material Conformance



### LFG PERIMETER PROBES

APTIM has worked with numerous clients on their LFG monitoring and control plans, providing CQA oversight and documentation of individual and nested monitoring probe installation activities. We work with our clients to determine proposed depths and construction details to be approved by the local enforcement agency.

We assist our clients in updating and/or presenting an LFG mitigation model and developing an LFG migration monitoring network based on geomorphological terrain and the geological and hydrogeological characteristics at the site.

#### **CQA CERTIFICATION REPORT**

Following the substantial completion of construction activities, APTIM prepares a CQA certification report. The report includes daily reports, both on-site and laboratory testing records, boring logs, well completion logs (unless provided by others), field modifications, well schedule, noted deficiencies and how they were addressed, and a statement verifying that the observed construction activities were completed in substantial accordance with the project drawings and specifications.

## CONTACT

Connect with our Solid Waste team: Info@APTIM.com

