



Job Description

Laboratory Manager

Reports To: Plant Manager
FLSA Status: Exempt
Department: Lab

Purpose: To provide leadership and management to Lab department and work in conjunction to maintain plant efficiencies with EHS, operations. lab, grains, ethanol load out and quality control. This position is responsible for managing the quality assurance/quality control {QA/QC} program for the ethanol plant to ensure maximum production quantity and quality, while supporting policies, goals and objectives of the company.

The production facilities are strategically located to process corn to Fuel ethanol and Industrial USP Grade ethanol, and feed products, taking advantage of unparalleled efficiencies in energy uses, water use and waste reduction.

Essential Duties and Responsibilities:

1. Manage plant QA/QC program.
 - Initiate and implement plant QA/QC program based on best practice in the ethanol industry.
 - Monitor use and inventories of laboratory chemicals and supplies. Initiate re-ordering when necessary.
 - Maintain and calibrate laboratory equipment.
 - Prepare reports, analyze data and make recommendations for improving operation or solving process related problems.
 - Sample various points in the process and conducts QA/QC tests as required.
 - Good laboratory practice or GLP is **a set of principles intended to assure the quality and integrity of non-clinical laboratory studies** that are intended to support research or marketing permits for products regulated by government agencies.
2. Supervise QA laboratory technicians.
 - Ensure that technicians are adequately trained, equipped and motivated, so that QA/QC program can be accomplished in a safe, timely and cost-effective manner.
 - Communicate regularly with all technicians, both individually and as a group, to ensure consistent implementation of the program.
 - Assist with hiring of laboratory personnel.
 - Conduct employee performance reviews based on job descriptions to determine competency, knowledge and contribution of the process operators.
 - Maintain and update operating and training manuals for the QA laboratory. Ensure that all technicians are trained on the most updated version of the operating procedures.
3. Monitor plant QA/QC parameters.

- Review the operation of the plant constantly to monitor production and quality, to anticipate solve problems in a timely manner, and to identify opportunities for improvement.
- Initiate and carry out projects that improve efficiency and/or reduce operating costs.
- Maintain adequate records on a daily, weekly and monthly basis, of key QA/QC variables.
- Train lab technicians and plant operators on the use of lab equipment, understanding of testing procedures/parameters, interpretation of results, lab safety, and hygiene.
- Oversee calibration and operations of laboratory equipment including, HPLC, brix refractometer, moisture analyzer, Karl Fisher Columat titrometer, specific gravity test, yeast counts, viability, water analyses, plate counts, water quality equipment in Water Treatment, methanator equipment and other tests as needed or requested for proper operation and maintenance.
- Develop, Oversee and perform routine wet and instrumental chemistry analysis in accordance with established procedures and parameters for testing in the lab and operations department as defined by the plant manager, production manager, customer, and governmental regulation and ensure compliance to same.
- Develop, oversee and perform chemistry calculations, prepare formulations, and review analytical data for accuracy. Report any deviancy to the Production Manager and/or Plant Manager for proper action. Will review quality control data, such as:
 - Cook and fermenter HPLCs.
 - Distillation HPLCs
 - Solids Separation
 - Boiler Operation
 - Shift Tanks
- Develop, oversee and prepare/review and release analytical reports, analysis of raw materials/ingredients used in process, and shipping (COA's) as established by Production and Plant managers, customers, and governmental regulation. Confidentiality of sensitive/proprietary processes is a must.
- Stay abreast of the latest ethanol industry and governmental regulations changes affecting production of fuel grade ethanol and USP Grade Ethanol. Run quality control test on product streams. Quality Control will include Fuel grade ethanol, USP Industrial Grade Ethanol {190 Proof}, Dried Distiller Grain's, Modified Distillers Grain's, Corn Oil or other produced products.
- Develop, oversee and Coordinate test results with operators to ensure optimum quality and efficiency.
- Develop, oversee and follow correct procedures and use of lab equipment and relay understanding of results to Operations.
- Work in cooperation and be responsible to follow direction from Plant Manager for all laboratory activities.
- Develop, oversee, and train Lab Assistant, Production Operators and others on proper field sample techniques.

- Oversee and be responsible to follow Quality Assurance on all Lab activities.
- Develop, oversee and maintain MSDS sheets for all chemicals and related inventory
- Develop, oversee and be responsible to train along with Plant Manager in the operation and maintaining the methanator system to achieve peak performance for the plant.
- Work in cooperation with Plant Manager and Operations Manager to strive to maximize efficiency of plant operations.
- Develop, oversee and follow testing protocols and ensure that test results are repeatable and accurate.
- Oversee and work with operations on special testing that is requested.
- Responsible for notifying Plant Manager, Operations Manager of any/all production problems.
- Communicate and report to the Plant Manager on a regular basis.
- Develop, oversee, compile data and generated reports showing trends of plant performance with information from Lab or operations.
- Maintain and support all records and reports needed to ensure compliance with all Federal, State and Local Permits, working in conjunction with Plant Manager and EHS Manager.
- Coordinate R & D of new product, equipment, and procedure testing for improving plant processes as requested by the plant manager.
- Follow all Safety programs, training and related items.
- Keep track of supplies and give orders to purchasing agent.
- Give guidance to Lab Assistant and oversee Lab Assistant lab activities.
- Responsible oversee that lab area clean and orderly.
- Complete any and all tasks assigned by Plant Manager, including, but not limited to, the investigation and/or implementation of new research projects.
- Maintain a team environment with other plant departments.
- Safe work practices are a condition of employment.
- Promote Highwater Ethanol, LLC in the community.
- Other duties as assigned.

Desired Qualifications:

- A 4 year - BS degree in biology, micro-biology, chemistry, or environmental sciences is required along with a minimum of 3 years experience in ethanol, bio-diesel, or agricultural processing industries.
- Strong leadership & managerial skills. Excellent written and oral communication to all levels of HWE staff, suppliers, and customer base.
- Possess strong PC skills (Windows); be highly organized with abilities to multi-task as the need arises.
- Be able to climb facility equipment/buildings w/ appropriate PPE. Occasional lifting of 50 lbs + can be expected.
- Duties will require availability to perform on-call status as needed.