



WSI
Wastewater Solutions, Inc.

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Corvallis, Oregon 97330
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LETTER AGREEMENT
2010 Operator Training

December 27, 2009

Mr. David Henderson
Utility Manager
West Lafayette Wastewater Treatment Plant
500 S. River Road
West Lafayette, IN 47906

Subject: **Wastewater Training 2010**

Dear Mr. Henderson:

Wastewater Solutions, Inc. is pleased to present this proposal for wastewater training. For convenience, this proposal is presented in a form that can be accepted and signed as an agreement between Wastewater Solutions, Inc. and the City of West Lafayette, Wastewater Treatment Plant.

SCOPE

The scope of services to be performed by Wastewater Solutions, Inc. under this letter agreement is:

Provide four training classes. Each class date shall consist of 3-5 contact hours and will be delivered in-house.

West Lafayette WWTP In-house Training 2010 *(Scope Continued)*

1. **Facility Operation & Process Optimization /Led Discussion (8 hours)**

A look at equipment and process optimization with a goal toward energy and labor reduction and/or treatment performance improvements. Each unit process operation will be discussed.

- Understanding your energy usage
 - “on peak”
 - Impact of starting and stopping equipment
- Preliminary Treatment
- Raw and PE Pumping
- Primary Treatment
- Secondary Treatment
 - Aeration DO / Blower Operation
 - Number of Clarifiers
 - RAS
 - WAS / Sludge Yield
 - Target Effluent TSS and BOD
- Solids Handling
- Digestion and Gas Production
 - Mixing Options
 - Heating Options
 - Volatile Solids Reduction Requirements
 - FOG / Food Waste Feed
 - Optimizing Gas Production and Utilization
 - Role of the Microturbines
- Lagoon and Supernatant Operation
- Chemical Use
- Lighting
- Maintenance Impacts on Efficiency
- Role of Each Employee in the Continuing Optimization Process

2. **Activated Sludge (4 hours)**

Review of the activated sludge principles, process control, and troubleshooting.

- Respiration
- Basics of Activated Sludge Operation and Troubleshooting
- Nitrification and Denitrification
- Current State of West Lafayette’s Activated Sludge Process

3. **Troubleshooting Case Histories / Group Exercises (4 hours)**

The purpose is to allow the application of knowledge and information from training in the troubleshooting and optimization process.

- New case histories requiring the application of activated sludge and digestion knowledge to solve real world treatment plant problems.

The training will be held in facilities provided West Lafayette WWTP. The WWTP will furnish a whiteboard and markers. Wastewater Solutions will provide up to 20 copies of the student manuals. WSI will apply to IDEM for CEU's for the workshop. The CEU's shall be of the "technical" category.

TRAINING DATES

The training will be held on April 5, 6, 7, and 8th, 2010.

COST

Total lump sum compensation for the training project will be \$19,600. Compensation includes all preparation and travel time, onsite labor, student materials, and all other direct costs.

ACCEPTANCE

To accept this proposal, please sign and date two copies and return one copy to Wastewater Solutions, Inc. within thirty days. We look forward to the opportunity to perform the work for you.

Respectfully,

WASTEWATER SOLUTIONS, INC

CITY of WEST LAFAYETTE

JON B. MUSICK

Printed Name _____

(E-signature: 10-1226)

Jon B. Musick
President

Title _____

Signature _____

Date _____

Wastewater Solutions, Inc.

EIN: 83-0351175