

## Sample Successful WEFTEC Abstract

Title of Abstract

Authors List

### Summary of Project

In 2002 a Southern Utility started up a new 40 MGD, \$150 million advanced wastewater treatment plant. New performance expectations were to surpass those of the old facility. The new facility was to produce not only higher quality water, but water suitable for reuse or discharge to a sensitive stream. There were two additional expectations. First, the utility committed to bring public education onto the plant site and have public school students within the facility. Second, the utility made a commitment to the surrounding community to control odor and noise. The goal of the Utility was to meet the higher expectations of both the regulators and the community. It was quickly recognized that the O&M and management experiences of the older plant would not suffice for the new treatment systems or lead to meeting the new expectations. The utility also had to apply Best Business Practices. It decided that using a leading private contract operator to assist with the assessment and development of a Best Business Practices Plan for operating the new plant was the direction to take.

This created a public-private partnership that offered the opportunity to combine public practices and experience with those of the private contractor. A contract was developed where major items for refining Best Business Practices in the new plant were identified. This paper will describe the assessment process and major changes that were implemented. You will find that the recommendations provide an example of an organized improvement program.

### Status of the Investigation

The investigation began in April 2002 and implementation was scheduled for conclusion within one year. The major elements were designed in mid-2002 and implementation began in the fall.

### What was Done and What was Found

The major areas identified for review and refinement were management, staff organization, O&M, training opportunities and new technology applications. Each area had an initial review so that a work plan could be established. Public and private sector experiences were combined to develop the overall recommendations. The

decision process was based on the on-site experiences of the combined public sector and private sector operations.

<b>Key Process Indicators (KPIs)</b>	<b>Goal</b>	<b>Actual from Clarifier 1</b>	<b>Full Scale Clarifier 2</b>	<b>Testing Clarifier 3</b>	<b>Clarifier 4</b>
TSS (% removal)	<b>70</b>	35	40	55	70
BOD (% removal)	<b>30</b>	20	20	25	35
PSD to Storage Tank (% solids)	<b>9</b>	9	9	9	9
Solids removed by primary (tons solids)	<b>15.8</b>	10	10.8	13.3	15.8
<b>Short Interval Controls (SICs)</b>					
PSD to Storage Tank (gpd)	<b>70,000</b>	35,000	40,000	55,000	70,000
Skimming Water to Storage Tank (gpd)	<b>0</b>	N/A	N/A	N/A	N/A

**Training Opportunities:** The utility was committed to development of its staff to fully operate and maintain the facilities at the highest possible level. A private sector training specialist developed an evaluation form to assess training needs. Experienced operators from outside the utility then used the form to evaluate the training needs of the staff. This led to a series of recommendations. The evaluation process, the resulting recommendations and the subsequent training program are discussed in the paper.

**New Technology Applications:** It was determined that there needs to be ongoing assessment of new technology that could improve operations and maintenance. Capital investments were identified for consideration for this new facility.

**Conclusions:** This presentation describes an example of an organized method to continue installation of Best Business practices. This program brought into focus Best Business Practices that are difficult to achieve in a new operating plant with ongoing and unknown challenges. The paper will discuss the implementation plan, individual recommendations and the overall assessment of the benefits of a public-private development system to obtain Best Business Practices.