



# INTEROFFICE MEMORANDUM

## FROM THE DEPARTMENT OF ENVIRONMENTAL AND ENGINEERING SERVICES

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**DATE:** January 24, 2019

**TO:** Samuel A. May, City Manager

**THRU:** Richard Nixon, Acting DEES Director *RN*

**FROM:** Wendell Wheeler, WWTP Plant Manager *W*

**RE:** Request for Emergency Response to Failure of RBC Units & IFAS Upgrade

Due to the failing of the Rotating Biological Contactors (RBCs), a critical process in the West WWTP, DEES has reached a point of emergency and is at risk of endangering public health and safety. It is no longer possible to adequately maintain this system and because of the lack of backup equipment we are at high risk of not being able to meet FDEP permit requirements and could face the possibility of dumping untreated wastewater into the environment.

The West WWTP RBC units have been in operation since the early 1980's and have been in a decline for many years. The typical life expectancy of an RBC system is 20 years which leaves our system currently 13 years past its useful life. Over the past five years, five (5) RBC units have failed and have been removed from the process as they were not able to be repaired or replaced; this has reduced the treatment capacity of the WWTP plant by approximately 18%. The units that have previously failed were due to excessive weight and were in the range of 64,000lbs or 32 Tons. Of the remaining RBC, two of the units, 2C and 4D, are rotating extremely slowing due to excessive weight due to being well past their normal life expectancy. The normal time of an RBC revolution is one minute; these units are taking 5 minutes to make one revolution. With this in mind, another RBC failure is in the very near future. At this time, I'm requesting that the DEES Department take immediate action and steps to address this major problem of failing Rotating Biological Contactor (RBC) units in the plant.

In the initial IFAS memo dated December 5, 2018 from DEES Project Manager, Sierra Marrero, it was stated that the expanded proposed scope was going to include a chemical feed system in the West WWTP. This system was to be installed to ensure that in the event of further RBC failure the City will still have the capabilities to maintain FDEP permit requirements. Due to the delays of the IFAS project approval, it is now necessary to bid the chemical feed system as a separate project in order to expedite the construction of this critical element. The chemical feed system was fully designed and ready for bid in February 2018, in response to the failing RBCs, yet was never put out to bid. Due to the critical nature of both the IFAS and Chemical Feed System projects and their ability to support the failing processes in the West WWTP it is imperative that we get these projects out to bid as soon as possible. There is no saying when these two struggling RBCs will fail,

however, when they do the City will not have the ability to meet the FDEP permit requirements and will be subjected to fines and corresponding consequences.

I'm asking that DEES Department move forward with both the IFAS and Chemical Feed System projects in order to support the failing West WWTP. These projects will reduce the treatment load on the West Plant and allow for the decommissioning and replacement of the old RBCs. The flow to the West Plant is approximately 80% of the entire flow; with this upgrade we will greatly reduce the load on the West Plant, and extend its operational life as well as help us to maintain FDEP permit parameters.

Thank you for your consideration in this matter.

Please let me know if you require further information concerning this request.

CC: Sierra Marrero; Project Manager, DEES

Attachment: December 5, 2018 East WWTP Upgrade Using IFAS Technology Contract  
Amendment Memo