





**CITY OF HOLLYWOOD**  
**INTER-OFFICE MEMORANDUM**  
***Public Utilities Administration***

**DATE:** October 24, 2014

**File:** PU-15-01

**TO:** Cathy Swanson-Rivenbark  
City Manager

**VIA:** Wazir Ishmael, PhD   
Assistant City Manager

**FROM:** Steve Joseph, P.E., Director  
Department of Public Utilities 

**SUBJECT:** Emergency Expenditures related to the Cryogenic Plant at the Southern Regional Wastewater Treatment Plant

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**ISSUE:**

Department of Public Utilities (DPU) requests authorization to incur emergency expenditures related to the necessary emergency repairs to the cryogenic plant at the Southern Regional Wastewater Treatment Plant (SRWWTP).

**EXPLANATION:**

On October 17, 2014, during the final phases of the annual cryogenic plant turn-around, the contractor working on the turn-around, Solutionwerks, Inc., informed staff that one of the main components of the plant had malfunctioned and he needed to perform additional troubleshooting on the system. During the weekend, Solutionwerks worked on different troubleshooting scenarios but they were unable to bring the cryogenic plant back online. The cryogenic plant's supply of oxygen is at the heart of the wastewater treatment process at the SRWWTP.

Currently, the DPU is receiving truckloads of liquid oxygen from Air Liquide at a cost of approximately \$7,000 per day to keep the wastewater treatment process going. However, there is always the possibility that the supply of oxygen delivered in this way can be unexpectedly interrupted. Without the cryogenic plant being operational to produce the needed oxygen, or without the ability to bring in truckloads of liquid oxygen, the SRWWTP would be unable to treat the wastewater entering the plant. This would result in a major permit violation for the City and health and safety issues to the general public, particularly along Hollywood Beach, because of the untreated wastewater flow that would pass through the ocean outfall into the near shore environment. For these reasons the DPU considers the malfunctioning of the cryogenic plant an emergency, and strongly recommends immediate actions be taken to begin the repair process.

On October 21, 2014, the DPU contacted the Director of Procurement Services to inform him of the situation and the need for the DPU to immediately begin locating companies to perform preliminary evaluation of the cryogenic plant and to provide a recommendation for repairs, if needed. After contacting several companies, the DPU was able to make arrangements for AirSep Process and Controls, LLC, a specialized company out of Niagara Falls, NY, to visit the SRWWTP to troubleshoot the cryogenic plant.

Between October 21 and October 22, 2014, AirSep analyzed the issues of the cryogenic plant and determined that one of the main components, the coldbox, had an internal leak. On Thursday, October 23, City Staff met internally with the City Attorney's Office to discuss options to proceed in addressing the emergency. Thereafter, AirSep submitted a proposal, which included the initial troubleshooting cost, detailed inspection of the internal components of the coldbox, and repairs as necessary to the standard components of the coldbox (valves, and specialized vessels are not included), in the amount of \$146,806.00.

Once the proposal was received, each member of the City Commission was briefed on the failure of the cryogenic plant, actions taken to date, the amount of the proposal from AirSep and the need to address the failure as an emergency. An emergency City Commission meeting was attempted to be scheduled for October 24, but a quorum could not be established on such short notice. Given the critical need to get the cryogenic plant back in operation as soon as possible, it is necessary to move forward with the issuing of an emergency Purchase Order so the repair work can begin as early as the weekend.

Also, the DPU has an established blanket purchase order (BPO) with Air Liquide for the supply of liquid oxygen. The ceiling amount for this existing BPO is \$154,620.00, however, DPU staff spoke to Air Liquide and Air Liquide confirmed that currently they can supply the excess liquid oxygen while the cryogenic plant is out of service. Therefore, the DPU is also requesting and suggesting increasing the amount of the BPO by an additional \$293,946.03, to secure approximately 1,816.5 tons of liquid oxygen supply for six (6) weeks. The total additional expenditures in liquid oxygen however will depend on how fast the cryogenic plant is repaired.

Finally, as required by the SRWWTP Operational permit, the Department of Public Utilities has informed the Florida Department of Environmental Protection (FDEP) and the Broward County Health Department of the situation because this is extremely sensitive to human health and human safety.

#### **RECOMMENDATION:**

The DPU is requesting authorization to issue an emergency purchase, under Section 38.40(C)(1) of the City's Code of Ordinances, to AirSep Process and Controls, LLC for the emergency repairs to the cryogenic plant coldbox, in an amount of \$146,806.00 based on the quote dated October 23, 2014 attached. Funding for this emergency repair is allocated in account No. 42.4000.86532.536.006302.

Approved by:



Cathy Swanson-Rivenbark  
City Manager