# City of Annapolis Budget Revision Request

Department:	Control number_	61-5-11
Public Works/Water Supply	Date	29-Sep-2015
Account Name Only	Transfer FROM	Transfer TO
Supplies	17,000.00	
Salaries and Benefits		17,000.00
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Approved for Financial & Accounting Sufficiency:   Approved for Financial & Accounting Sufficiency:  Approved for Financial & Accounting Sufficiency:	Department Dir	
Approved by:		
Mayor	andred farly	
Finance Committee	- The state of the	
City Council	900	
City Manager	- lfhW/	



## City of Annapolis Department of Public Works

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#### **MEMORANDUM**

DATE:

October 1, 2015

TO:

Bruce Miller

Director, Finance Department

FROM:

David A. Jarrell, P.E.

Director, Department of Public Works

RE:

Request to reinstate Instrumentation Technician position

The Department of Public Works (DPW) is requesting to reinstate the Instrumentation Technician position at the Water Treatment Plant (WTP). The position existed in previous budgets, but was eliminated in the FY 2014 budget. Since the position was eliminated, the instrumentation work has been performed by an outside contractor on an as-needed basis.

A new state-of-the-art WTP is under construction to replace the current, antiquated plant. Advanced electronic equipment and automated process control systems are being installed in the new plant. While the current WTP is basically a manual operation, the new plant will operate in a much different manner. A full-time Instrumentation Technician will be required to maintain and repair the advanced systems at the new plant.

The DPW requires an full-time Instrumentation Technician to begin this fall (Fall 2015) to provide input and coordination for the design, installation and configuration of the new supervisory control and data-acquisition (SCADA) system. The Instrumentation Technician will ensure that the new system better meets our needs, and will be better prepared to maintain, repair and modify the SCADA system, control and instrumentation systems.

Funding for this position, which is a Grade 10, is currently available within the Water Supply budget. Following the City's prescribed hiring process, the earliest that DPW will be able to fill the position is November 1, 2015. The cost of the salary and benefits for the position for the remaining eight months of the fiscal year is \$30,000, and the benefits cost will be approximately \$10,500.

Most of the funding will come from the existing salary account for the WTP. A Water Plant Operator IV position was unfilled for approximately 5 weeks at the beginning of FY 2016, resulting in a savings of \$7,500. A second Water Plant Operator IV position and a Utility Mechanic II position are funded and filled with current employees, but the employees are currently on unpaid leave, resulting in a savings of \$15,650. No Budget Revision Request is required to use the existing funds that will be unspent from the salary account, which total \$23,150.

An additional \$17,000 of funding is required, and is requested to be reallocated from the Water Supply supplies account to the Water Supply salary account. A Budget Revision Request form is attached.

## **Instrumentation Technician**

Job Class Code: 7406
Pay Grade: 10
FLSA: Non-Exempt
Updated: 2/08

GENERAL STATEMENT OF DUTIES: This is Instrumentation Technician work in the Water Treatment and Utilities Divisions, Department of Public Works. Work involves the performance of preventive, predictive and corrective maintenance activities on the electronic, electrical and pneumatic instrumentation equipment and automated process control systems installed in the collection of municipal wastewater and the production, storage and distribution of potable water.

DISTINGUISHING FEATURES OF THE CLASS: Work involves responsibility for performance of a variety of advanced level maintenance activities that support the efficient and safe operation of wastewater lift station and water treatment plant. Work is primarily instrumentation in nature but may include some electrical duties. Work assignments include the independent performance of advanced level preventative maintenance tasks, inspection of the operating conditions and performance of instrumentation equipment and automated process control systems, installation of electrical, electronic and pneumatic instrumentation equipment, performance of advanced level corrective maintenance tasks on instrumentation equipment and automated process control systems.

## **EXAMPLES OF WORK:** (Illustrative only)

- Performs advanced level preventative predictive maintenance activities on electrical, electronic and pneumatic instrumentation equipment and automated process control systems used in wastewater and water utility infrastructure (cleaning, lubricating, adjusting, inspecting and monitor repairs) independently.
- Performs advanced level troubleshooting and corrective maintenance on electrical, electronic and pneumatic instrumentation equipment and automated process control systems.

#### REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

- Knowledge of the National Electric Code (NEC) requirements for the installation, grounding and application of programmable logic controllers (PLC), and test equipment and devices used in the maintenance and repair of instrumentation and electrical equipment, and of the basic hand and power tools used in the maintenance and repair of instrumentation and electrical equipment.
- Knowledge of AC and DC electric theory and knowledge of series and parallel circuits, and national and local electric codes concerning the electrical conduit and shielded cable or power wires requirements for the installation of an instrumentation device.
- Skill in the installation and maintenance of PID control loops, flow paced control and alarm circuits, in the installation and troubleshooting of instrumentation devices and circuits utilized in automated industrial process control systems, in the system and hardware configuration and parameter entry of some of the programmable logic controllers (PLC) interfaced with wastewater and water flow processing instrumentation, in writing programs using the basic relay type, timer and counter and data transfer and manipulation instructions for programming of programmable logic controllers (PLC), and in the troubleshooting and corrective maintenance of faults in the input/output devices and field wiring associated with some of the programmable logic controllers (PLC) interfaced with wastewater and water flow processing instrumentation.

Skill in the set-up and adjustment of parameters on some of the variable frequency drives (VFD) interfaced with wastewater and water flow processing instrumentation, in the identification of most common field and systems faults found in variable frequency drives (VFD).

ACCEPTABLE EXPERIENCE AND TRAINING: Graduation from high school; extensive experience in the maintenance and repair of instrumentation equipment and the programming and maintenance of programmable logic controllers and their interface with flow processing instrumentation; experience in the maintenance, repair, and installation of microcomputer hardware and operating systems; considerable experience in the installation and maintenance of 4-20 mile-ampere control loops, flow measurement devices, and process alarm circuits; and a valid motor vehicle operator's license.

### **AMERICANS WITH DISABILITIES ACT:**

<u>Physical ability</u>: ability to perform required inspections on construction sites; ability ambulate over rugged terrain and climb ladders; ability to lift manhole lids; ability to operate a vehicle; ability to operate standard office equipment including copier, computer, fax machine, etc.; ability to reach into file drawers in standard four-drawer filing cabinets.

<u>Visual ability</u>: to effectively operate standard engineering office equipment; ability to read and write reports, correspondence, instructions, etc.

<u>Hearing ability</u>: sufficient to hold conversation with other individuals both in person, over a telephone and/or radio.

<u>Speaking ability</u>: sufficient to communicate effectively with other individuals in person, over a telephone and/or radio.

Freedom from mental disorders which would interfere with performance of duties as described.