

NOVEMBER 10, 2014

Minutes of special meeting of the Municipal Services Commission held November 10, 2014 at the office of the Commission, 216 Chestnut Street. The meeting was called to order at 4:00 P.M. with Robert S. Appleby, President, Commissioner, presiding.

Attendance Report:

Present: Robert S. Appleby, President, Commissioner
Daniel F. Knox, Commissioner
Dr. Roy J. Sippel, Commissioner
Pamela A. Patone, Secretary

Also in attendance: Jay Guyer, Water Supervisor and Ryan Jaeger, Assistant Water Supervisor, Daniel P. Barbato, PE, Pennoni Associates Inc., Alice Riehl, New Castle Weekly

Commissioner Appleby began the meeting and questioned who would be presenting. Secretary Patone advised that Daniel P. Barbato, the Commission's engineer with Pennoni Associates Inc. would be presenting. Mr. Barbato introduced himself and informed the Commissioners that he had experience setting up carbon filtration systems in the area and that was how he got involved in this project. He indicated that the report was prepared according to the USDA guidelines. He advised that there were two reports prepared, a simplified engineering report and an environmental report. He went on to report that he would concentrate on the engineering report as the environmental report related to wetlands and endangered species that were a non-event for this project. Mr. Barbato indicated that the report was broken down in three sections: project justification, scope of work and cost. He advised that under project justification the alternatives are listed. He reported that the first alternative would be do nothing, which is not acceptable because the City's water system is currently shut down, the second alternative is to purchase water, however, after calculating cost to produce water the purchasing of water is 500% greater than the City producing its own water, the third alternative is to install a treatment system. Mr. Barbato advised that the report goes on to assess the type of treatment system that would be best suited for the contaminant. He indicated that some organics can be stripped out with an air stripper; however, these contaminants are a heavy molecular weight organic which will go right through the air stripper, therefore, it must be removed with an activated carbon. Mr. Barbato communicated that there is only one proven technique for removing the PFOS and PFOA which is granular activated carbon (GAC). He went on to explain that GAC is similar to Brita filters used in homes. He indicated that coal is crushed and then heated which turns it into little pieces like popcorn with pore spaces that will pick up the complex molecules. He advised that the system is all or nothing which means that it will work or not work. He advised that when the carbon is filled up it would need to be changed out.

Mr. Barbato advised that the report explained to the USDA why GAC is the right choice as a treatment alternative. He indicated that the first support was to provide articles from the EPA acknowledging GAC as a viable treatment, the report then supported that air stripping is not

effective in removing PFOS and PFOA. He went on to report that other treatments were assessed such as reverse osmosis, and the reason it was not acceptable was because it would remove 80-90% of the contaminate which is not sufficient for drinking water which requires a 100% of the contaminate to be removed. He advised that the most cost effective and proven means of removing the PFOS and PFOA from the water was GAC and this is an acceptable method that is approved by the State of Delaware. He went on the report that the next step was to evaluate the vendors that could provide an all-inclusive prepackaged system to a municipality for drinking water. He advised that after research it was determined that the vendors in this region with a proven track record of providing systems were Calgon, Evoqua and TIGG. He worked with staff to determine that the system needed to be NSF certified, accommodate 1,100 gallon per minute and have 2 units so the ability to switch out carbon without shutting down the system would be possible. Commissioner Knox questioned the size of the units and space availability. Mr. Barbato indicated that the layout took into consideration accommodating at minimum the two vessels and the pumping which will be reviewed later in the report. He advised that the USDA required that the bid process be open and fair and he reported that due to limited vendors that are acceptable and capable to provide these systems he believed that quotes were obtained in an open and fair process. He reported that Calgon had the lowest bid at \$251,150. Commissioner Sippel inquired whether the quotes were comparable. Mr. Barbato indicated that the quotes were comparable and included utilizing domestic coal and not coconut shell because coconut shell was not proven to be effective. Mr. Barbato then reviewed the major equipment for the scope of work which included an enclosure for the valves and piping, a concrete slab, a sump and pumping. Commissioner Appleby questioned the electrical work required. Mr. Barbato explained that the system could be set up with no electric and just run the water through the carbon, however, for winterizing, monitoring pressure and other controls it was necessary to run electric.

Mr. Barbato then reviewed the estimated costs of the project. He reported that the costs may change as the project progresses but the bulk of the numbers are captured in the \$1,079,300 estimate. He indicated that the vessels and carbon are approximately a third of the total cost, with the electrical controls etc. being a large portion of the estimate and the largest portion of the budget being the purchase of water. He advised that the estimate included six months of purchased water. Commissioner Appleby questioned whether the estimate was utilizing the new Artesian Water rate that was just passed in November 2014. Secretary Patone reported that the estimate included the water already purchased at the old rate for approximately three months and the remaining three months at the new rate. She went on to report that previous discussions estimated less than six months of purchased water, however, after discussions with Supervisor Guyer it was determined that when the temporary system is moved to its permanent location the system would need to be shut down during the transition. Supervisor Guyer explained that the existing system would have to be placed out of service and go back on Artesian Water's system. Assistant Supervisor Jaeger indicated that the permanent system will need to be disinfected and tested during the transition which would require some time. Commissioner Appleby requested that the Supervisors investigate possibility of keeping the Commission's system operating when the transition takes place. Commissioner Sippel questioned whether it would be best to go straight to the permanent solution, Assistant Supervisor Jaeger advised that the temporary system has already been set up and the media being delivered so it is not an option. Supervisor Guyer advised that the temporary system allows staff to evaluate the system's functionality under the

most challenging circumstances because the water will not run through the aerator first as it will in the permanent solution. Secretary Patone advised that proceeding with the temporary system quickly and then installing the permanent system allows the Commission to save money on the purchase of water. She communicated that if the weather delays the installation of the permanent solution the Commission can be reassured that they are pumping their own water and not purchasing. Mr. Barbato indicated that operating the temporary system will give an idea on the ongoing operating costs for the carbon replacement.

Commissioner Appleby questioned the testing for the PFOS and PFOA. Mr. Barbato indicated that these are unregulated compounds but they are contaminants that are popping up in the area and the EPA established health advisory limits because the compounds do not break down and they will build up in humans. Commissioner Appleby questioned the amount and cost of carbon being delivered for the temporary system. Supervisor Guyer indicated that 20,000 pounds was being delivered at approximately \$1.65 per pound. Secretary Patone advised that the cost of the carbon was in the estimate provided. Mr. Barbato then reviewed the exhibits to show the placement of the vessels and the area that could be utilized for a third vessel if necessary for the future. Secretary Patone communicated that the temporary system was placed on temporary concrete footers in a separate area so that the construction of the permanent system could take place. Mr. Barbato continued to review the exhibits in detail discussing the piping, pumps and sump. Commissioner Appleby questioned whether all the wells would run through the filter system. Supervisor Guyer indicated that all the wells pump to the School Lane Treatment facility and are aerated and would be filtered at that location. Secretary Patone questioned Mr. Barbato on the space for the equipment in the current building. Mr. Barbato indicated that there was not sufficient space in the current buildings and it would not be acceptable for electrical code and therefore a new structure would need to be built. Mr. Barbato advised that an electrical cabinet was considered but it was determined that the structure similar to the Cross Roads well location could be built by the Commission's staff and would be more suitable.

Commissioner Appleby complimented Supervisor Guyer and Assistant Supervisor Jaeger on their work and asked if they had anything to add to the report. Supervisor Guyer indicated that he believes that they explored all options and evaluated all vendors and costs. He advised that Clean Harbors was considered in the initial research but was eliminated due to the NSF requirement and the feasibility of constructing a system that would accommodate the Commission's needs. Assistant Supervisor Jaeger advised that they have designed a quality system that will last a long time and a structure that will match the other locations. Commissioner Knox questioned the staff on whether they had visited the Artesian Water Company sites with similar systems. Assistant Supervisor Jaeger confirmed that the Hares Corner location was visited and that all the locations in the area have similar systems. Mr. Barbato indicated that he worked with Artesian Water Company for fifteen years and was familiar with the systems in the area. Commissioner Appleby questioned whether funds were able to be spent before the USDA grant is awarded. Secretary Patone communicated that the grant is an emergency grant and it allows for funds to be disbursed prior to approval of the grant as long as the process is followed. Secretary Patone requested that the Commissioners consider voting to approve the staff to move forward with the proposed solution in the Pennoni Associates report.

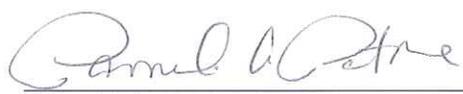
Upon motion made and unanimous approval, the Commissioners voted to move forward with the project proposed in the Pennoni Associates simplified engineer report.

Commissioner Appleby asked whether Ms. Riehl from the press had any questions. Ms. Riehl asked if all went as planned it sounded as though all would be complete by approximately May 2015, she asked if this was correct. Commissioner Appleby confirmed that was correct. Ms. Riehl complimented Mr. Barbato on his clear presentation and the Commissioners and staff on how they were handling the situation.

ADJOURNMENT

By motion made and unanimous approval, the Commissioners voted to adjourn.

Approved 12-22-14
Date


Pamela A. Patone