



**District of Columbia
Water and Sewer Authority**

Board of Directors

**Environmental Quality and
Sewerage Services Committee**
Thursday, February 19, 2015

9:30 a.m.

MEETING MINUTES

Committee Members Present

Bo Menkiti, Acting Chairperson
David Lake
Howard Gibbs
Mathew Brown
Adam Ortiz
James Patteson
Brenda Richardson

DC Water Staff Present

George Hawkins, General Manager
Len Benson, Chief Engineer
Randy Hayman, General Counsel
Linda Manley, Secretary to the Board

I. Call to Order

Mr. Bo Menkiti, Acting Chairperson, called the meeting to order at 9:30 AM.

II. AWTP STATUS UPDATES

1. BPAWTP Performance

Mr. Walt Bailey, Assistant General Manager for Wastewater Treatment, reported that the monthly average influent flow was 299 MGD, bringing the 12-month average to 300 MGD. 3.7-inches of precipitation fell during the January reporting period.

Mr. Bailey informed the committee that as of Saturday, February 14, 2015, 100% of the biosolids are being processed through the thermal hydrolysis (Cambi) and digesters; we are no longer producing lime stabilized biosolids.

Biosolids production was 700 wet tons per day, compared with the annual average production of 1150 wet tons per day. Total nitrogen concentration averaged 3.7 mg/l for the month, and the annual average of 4.0 mg/l remains below the permit threshold. Overall, plant performance was excellent, with 100% permit compliance. As of January 1, 2015, EPA mandate requires the Blue Plains to meet effluent limit of 4,377,580

pounds per year of Total Nitrogen.

The committee requested a description of the process for “mothballing” the lime stabilization equipment. Mr. Bailey responded that the thermal hydrolysis (Cambi) and digesters were not designed for peak day but instead for peak month; therefore, as Blue Plains approaches the design year capacity of 370 MGD, the lime stabilization equipment will be necessary. Mr. Bailey noted that the lime stabilization system will be maintained and periodically exercised to be used as a backup to handle peaks.

The committee asked if by March 2015, the Combined Heat and Power (CHP) will begin generating electricity. Mr. Bailey commented that Pepco Energy Services continues to be behind schedule; it is anticipated that by April 2015 the issues with boilers and scrubbing of the digested gas will be resolved to enable the startup of the turbines. The committee asked if the lack in revenue because of contractor’s delay is shared with the CHP contractor or borne by DC Water. Mr. Bailey deferred the question to Mr. Len Benson. Mr. Benson commented that the contract has liquidated damages; in addition, DC Water holds a retention of monies due to the Contractor to cover liquidated damages, as may be assessed. .

III. UPDATES: POTOMAC INTERCEPTOR SEWER

1. Odor Abatement Project

Ms. Liliana Maldonado, Director of Engineering and Technical Services, reported that the Maryland Sites are completed with Site 27 (Old Angler’s Inn) odor source investigation continuing. The Fairfax County liaison with Dominion Virginia Power provided by Mr. Patteson was supportive in expediting the start of permanent power installation at Site 31 (Fairfax). Pending no further weather delays and the completion of permanent power installation, manual startup of Site 31 is anticipated end at the end of March 2015. Site 46 (Loudoun) is 95% complete with operational demonstration anticipated early April 2015. The committee asked if the odor at the Maryland Site 27 (Old Angler’s Inn) is Dimethyl Sulfide (DMS), whether the DMS odor source has been located, and whether the odor source is actually coming from DC Water’s sewers. Ms. Maldonado responded that the DMS is one of the odors and that the source and has not been located. Ms. Maldonado noted that odor control design is to treat hydrogen sulfide (H₂S) gas, and DMS is not a common odor source in the sanitary sewer. The committee asked if any sampling for DMS has been performed, and how well the odor control facility is working. Ms. Maldonado responded no sampling has been done at this time; however, there is a plan once all the process equipment at the sites are operational to balance and optimize the odor control system. The committee asked if all sites were necessary to optimize the system and Ms. Maldonado confirmed that all sites are needed. Mr. Benson further commented that once all sites are operational, DC Water will be able to identify data gaps to better determine sampling locations.

IV. SOLAR POWER PURCHASE AGREEMENT – SOLAR POWER

Mr. George Hawkins, General Manager, explained that the solar photovoltaic (PV) contract is a Power Purchase Agreement (PPA) to purchase all electrical energy produced by the PV system for a 20-year initial term and 5-year renewal option based on an electricity kWhr cost stated in the PPA for each year of the PPA. Washington Gas Energy Services (WGES)/Standard Solar have been selected with negotiation of the final terms and conditions to proceed after EQ & SS recommendation to proceed and full Board approval. Mr. Hawkins noted that the same PV panels have been installed at the Wastewater Treatment Plant in Camden, NJ, where DC Water conducted a site visit to evaluate the technology prior to undertaking the effort.

The committee asked about the interconnection agreement with Pepco and whether the agreement allowed excess electricity to be sold back into the grid. Mr. Ernest Jolly, Energy Chief, responded that an interconnection agreement is necessary in order to operate the PV and CHP system in parallel with the Pepco System and the electricity generated is expected to be consumed at Blue Plains instead of being sold to the grid.

Mr. Hawkins highlighted the time value of executing and completing the PV installation by December 31, 2016 to take advantage of Federal Investment Tax Credits.

The committee asked if a cost sensitivity analysis to install future PV panels have been performed for other locations at Blue Plains. Mr. Hawkins explained that other locations are being evaluated, for example along I-295 or on building roofs, but currently are not part of this contract beyond examining such as possible addition to the contract.

The committee asked what is the electricity cost per kWhr under the PPA. Ms. Diala Dandach, Supervisor Program Management, responded 6.5 cent per kW/hr is being charged for the first year and adjusted for inflation each subsequent year. The committee asked about the expected energy production and the capacity. Ms. Dandach explained that under the PPA, all electricity that is expected to be generated will be purchased by DC Water.

The committee asked who is responsible for the maintenance cost over the 20-year period. Mr. Hawkins responded that the WGES/Standard Solar are responsible for any maintenance costs to the PV and appurtenances and DC Water is responsible for maintenance costs for our sedimentation basins. It is, however, unclear which party is responsible for maintenance if a PV panel falls into our Sedimentation Basin; these types of questions will be clarified during the negotiations. The committee asked if a storm renders power from Pepco inoperable whether there are any necessary modifications to Blue Plains equipment/Motor Control Centers (MCC). Ms. Dandach explained that an allowance is included with the PPA agreement to cover such unforeseen electrical modifications but this is unlikely to be required since the interconnection lessons-learned from the CHP agreement with Pepco will be applied to this contract.

The committee asked what is the amount of electricity being generated by PV and CHP for Blue Plains as a percentage of DC Water's total projected annual energy requirements. The committee requested a graphic depicting the projected energy consumption at Blue Plains and for all DC Water for the next 10, 15, and 20-years and how much energy will be come from PPA, CHP and Pepco.

The committee asked if there is a buy-out option in the PPA to cover DC Water's interests with newer technology in the future. Ms. Dandach commented that the current PPA has two options: 6- and 10-year with option to buy the PV system. If the PPA continues to the 20-year period, DC Water will have the option to buy or if not the provider is responsible to remove the PV system at their cost.

The committee asked to understand the reason why one of the short listed proposer did not submit and two others were determined non responsive. Mr. John Bosley, Chief Procurement Officer, commented that procurement is still active and did not want to elaborate but did confirm that the two proposers were deemed non responsive.

The committee asked if storage batteries were an option. Ms. Dandach commented that as part of the negotiation the proposers were asked to provide alternatives such as onsite battery; however, the battery technology has not matured at this time making this option not viable.

V. ACTION ITEMS - JOINT USE

1. Contract No. WAS-12-026-AA-JR, M.C. Dean
2. Contract No. WAS-13-013-AA-RE, Polydyne
3. Contract No. WAS-13-006-AA-RE, PVS Chemical Solutions
4. Contract No. DCFA #441, Peer Consultants, PC
5. Contract No. 140100, WGES, Washington Gas Energy Systems
6. Contract No. WAS-09-12-AA-GA, M&M Electric Motor Repair. Inc.

Ms. Theresa Scott presented action items 1, 2, 3 and 6.

Action item 1 is a request to exercise option year two of the contract for the maintenance of high and low voltage switchgear throughout DC Water facilities.

Action item 2 is a request to exercise option year two of the contract for the supply and delivery of dry cationic polyacrylamide flocculant (polymer) for use in the secondary clarifier at Blue Plains AWTP. The committee noted that option year 1 contract value was \$601,800 and inquired why the cost difference for option year 2 contract of \$753,600. Mr. Bailey explained that the price per pound is unchanged and that the increase is due to an increase in quantity.

Action item 3 is a request to exercise option year two of the contract for the supply and delivery of liquid sodium bisulfite at Blue Plains AWTP.

Action item 6 is a request to execute to modification to add funding for services to repair and maintain industrial pumping equipment at DC Water's water and wastewater facilities.

Mr. Len Benson presented action items 4 and 5.

Action item 4 is a request to execute Supplemental Agreement No. 1 to provide asset parts processing support to Department of Maintenance Services (DMS) and start-up services associated with the capital construction contracts at Blue Plains AWTP. The committee asked if the supplemental agreement reflects the required MBE/WBE percentages. Mr. Benson commented that the MBE/WBE participations shown are the blanket participation percentages throughout the contract.

Action item 5 is a request to execute a 20-year Solar Power Purchase Agreement to purchase solar power generated at Blue Plains AWTP. Details are noted above in Section IV, Solar Power Purchase Agreement. The committee asked if from a procurement standard there is an additional step required when there is only one responsive bidder. Mr. Benson commented that considerable discussions were conducted with all the bidders before selecting WGES/Solar Standard.

The Committee will recommend all action items to the Board for action.

VI. CLEAN RIVERS PROJECT STATUS UPDATE

Mr. Carlton Ray, Director Clean Rivers, noted the Clean Rivers projects are on schedule with notable recognition received from Cardinal Wuerl in the naming ceremony for the Anacostia River Tunnel (ART) Boring Machine "Nannie" and from Vice President Biden when touring the ART mining site.

VII. QUARTERLY CIP REPORT

Ms. Liliana Maldonado, Director of Engineering and Technical Services, reported that disbursements are on target for the first quarter. All priority 1 projects are on schedule and within budget. For the 1st Quarter, five of the nine planned KPI milestones were met; four KPIs however were completed ahead of schedule.

IX: ADJOURNMENT

The meeting was adjourned at 11:05am.

Follow-up Items

1. Provide a graphic depicting the projected energy consumption at Blue Plains and for all DC Water for the next 10-, 15-, and 20-years and how much energy will be coming from PPA, CHP and Pepco.