



Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street
Chicago, IL 60611

Legislation Details (With Text)

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Title: Authorization to enter into an agreement and make payment to the Water Environment Research Foundation for the cost of participation in a research project to develop sustainable struvite control using residual gas from a digester gas cleaning process, in an amount not to exceed \$50,000.00, Account 201-50000-601170

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Date	Ver.	Action By	Action	Result
10/16/2014	1	Board of Commissioners	Approved	Pass
10/16/2014	1	Committee of the Whole	Recommended	Pass

TRANSMITTAL LETTER FOR BOARD MEETING OF OCTOBER 16, 2014

COMMITTEE ON PROCUREMENT

Mr. David St. Pierre, Executive Director

Authorization to enter into an agreement and make payment to the Water Environment Research Foundation for the cost of participation in a research project to develop sustainable struvite control using residual gas from a digester gas cleaning process, in an amount not to exceed \$50,000.00, Account 201-50000-601170

Dear Sir:

Authorization is requested to make payment by direct voucher to the Water Environment Research Foundation (WERF) for the cost of participation in a research project to develop sustainable struvite control using residual gas from a digester gas cleaning process, in an amount not to exceed \$50,000.00.

WERF has accepted a proposal from the Pima County Regional Wastewater Reclamation Department (PCRWD) for a collaborative research project which will focus on the separation and use of carbon dioxide generated from anaerobic digestion for the control of in-plant struvite precipitation. The total cost of this research project is \$228,000.00. The District has been offered the opportunity to participate in and to help fund this research project.

Magnesium ammonium phosphate, also known as struvite, is a chemical compound which can precipitate from solution to form a hard, crystalline structure, which builds up inside pipes and restricts flow. To control struvite formation at the Stickney Water Reclamation Plant (WRP), carbon dioxide is injected into the process. The District spends over \$300,000.00 per year on the purchase of commercial grade carbon dioxide. The District is pursuing a project to produce biomethane at the Calumet WRP, which involves cleaning digester gas. The waste product of this cleaning operation, which would normally be combusted, is a mixture of compounds including a large concentration of carbon dioxide. The primary focus of this research will be to see if this waste

gas can be turned into a recovered resource and used for struvite control in place of commercial grade carbon dioxide. If successful, this approach would benefit the District by reducing operational costs, recovering a useable resource, and reducing combustion of off-gases.

WERF, the sole source supplier, has submitted the funding amount for participation in this research project. Inasmuch as participation in this research project is not available through any other source of supply, nothing would be gained by advertising for bids (Section 11.4 of the Purchasing Act).

It is hereby recommended that the Board of Commissioners authorize payment, by direct voucher, to WERF, in an amount not to exceed \$50,000.00.

Funds are available in Account 201-50000-601170.

Requested, Catherine A. O'Connor, Director of Engineering, TK

Recommended, Darlene A. LoCascio, Director of Procurement and Materials Management

Respectfully Submitted, Barbara J. McGowan, Chairman Committee on Procurement

Disposition of this agenda item will be documented in the official Regular Board Meeting Minutes of the Board of Commissioners for October 16, 2014