

BOR Operations Committee:

The SWPCA at its meeting on June 2nd authorized the submittal of the final report on the Waste to Energy Project dated January 2011 to the Department of Energy (DOE). Jay Fountain requested that I summarize for the Committee the findings and conclusions of the report and explain why it is being submitted to the DOE at this time.

As you are aware, the WPCA conducted a study of the use of the dried sludge from the treatment plant to create electrical power using the gasification process, aka the "Waste to Energy Project". The study was done between 2007 and 2011 and was partially funded by the DOE with grant expenditures of approximately \$1.1 million. Drafts of the study report were submitted to the DOE but the final report, completed in January 2011, was never submitted. The DOE has requested the final report, or they want their grant monies returned. Release of the report to the DOE does not obligate the City/WPCA to take further action on the Waste to Energy Project which is considered to not be financially viable. The project has been closed since 2011.

The Executive Summary of the Study Report is attached. The study evaluated the feasibility of using dried wastewater treatment plant sludge (biosolids) to fuel a gasification process. The gasification process would create syngas which would be used to fuel an engine generator to produce electricity. At the time of the study, wood chips (biomass) were typically used to fuel a gasification process. The study determined that the WPCA's dried sludge had fuel characteristics that were similar to wood chips, and therefore could possibly be used to fuel the gasification process, either with or without wood chips. Both bench scale and pilot studies were conducted using WPCA's dried sludge to fuel a gasifier, and three commercially available gasification processes (Primeenergy, Kopf and Nexterra) were evaluated. The study recommended that a demonstration facility be designed to use the Nexterra gasification process to produce syngas from WPCA's dried sludge and then use the syngas to fuel a GE Jenbacher engine generator. The demonstration project was deemed by the WPCA to not be financially viable and work on the project ceased.

Bill

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