



Public Works

April 8, 2015

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DIVISION OF AIR RESOURCE MANAGEMENT

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PSD 369C

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Mr. Alvaro Linero, P.E.
 Florida Department of Environmental Protection
 2600 Blair Stone Road
 Tallahassee, FL 32399

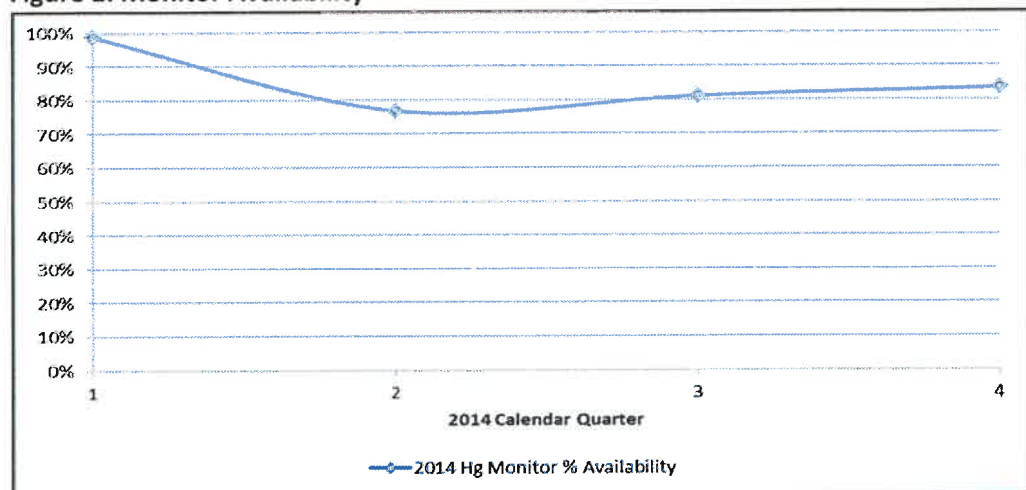
SUBJECT: Sick Maihak MerCEM 300Z Continuous Mercury Analyzer
 Hillsborough County Resource Recovery Facility - Unit No. 4

Dear Mr. Linero:

As discussed previously with you, the Hillsborough County Resource Recovery Facility failed to achieve compliance with Specific Condition No. 33.b of air construction permit no. PSD-FL-369C. Specifically, the monitor availability of the continuous emissions monitoring system for mercury ("Hg-CEMS) for calendar year 2014 was 85%, which did not meet the minimum availability requirement of 90%.

The majority of the Hg-CEMS monitor downtime in 2014 was attributable to failures of the monitor's calibration system. Each morning, the Hg-CEMS automatically initiates a calibration sequence whereby a fluid containing a known amount of mercury is injected into the system and measured by the instrument. On three occasions throughout the second half of 2014, the calibration cycle failed to initiate, resulting in the invalidation of the previous 24 hours of collected data. To repair the calibrator, it is necessary to mobilize Sick-Maihak technicians from Texas to the site. Naturally, this results in several days of monitor downtime each time the calibration system fails. Figure 1 depicts Hg-CEMS monitor availability for Calendar Year 2014.

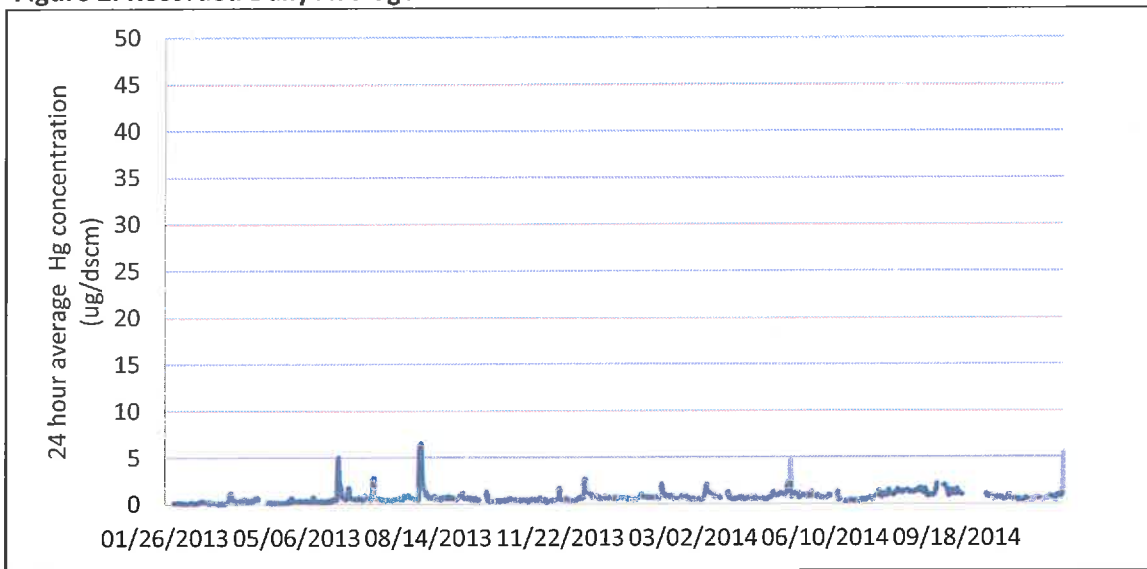
Figure 1. Monitor Availability



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The data collected by the analyzer continues to demonstrate that mercury emissions are consistently less than 5 ug/dscm with a permitted limit of 28 ug/dscm. Very little variability has been observed. **Figure 2** depicts the 24-hr average mercury concentration recorded since January of 2013. A constant carbon usage rate was used throughout this monitoring period, demonstrating that this reagent, when combined with steady-state operations, is providing consistent and effective abatement of Hg emissions.

Figure 2. Recorded Daily Average Data



Hillsborough County has committed significant financial resources to install and keep the Hg-CEMS running, including an investment of approximately \$11,000 per year for an annual maintenance contract with Sick-Maihak. However, given the consistently low mercury emissions recorded by the Hg-CEMS for the past three years (as corroborated by the USEPA Method 29 stack test results), we question the value that the Hg-CEMS is providing. The existing compliance standards that require continuous monitoring of carbon usage with periodic stack testing provide reasonable assurance of compliance with the mercury emission limit, and can be implemented at a much lower cost to Hillsborough County taxpayers.

As part of our continuing efforts to reduce mercury emissions, the County recently funded (in cooperation with the Environmental Protection Commission of Hillsborough County) a “mercury bounty program” that paid citizens to surrender mercury-containing devices rather than disposing them in the wastestream. A relatively modest investment of \$5,000 resulted in over 4 lbs of mercury being diverted from the Resource Recovery Facility. We believe that tax-payer dollars are more wisely utilized by funding such pollution prevention programs, rather than on post-combustion monitoring technology that simply measures the relatively small amount of mercury exiting the stack.

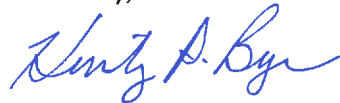
In light of the fact that significant Hillsborough County taxpayer dollars are being spent to maintain an instrument that is providing limited environmental protection, we request that the Department remove Specific Condition Nos. 33 and 35 from Permit No. PSD-FL-369C. The data collected by the Hg-CEMS over the past three years has

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provided us with a comprehensive understanding of mercury emissions from municipal waste combustors and has demonstrated that activated carbon injection effectively controls mercury emissions to very low levels.

Please contact me at your earliest convenience so that we can discuss the appropriate level of detail to include in an application for permit amendment to remove Condition Nos. 33 and 35 from PSD-FL-369C. I can be reached at (813) 612-7718.

Sincerely,



Kimberly A. Byer, P.G.
Division Director
Solid Waste Management Division