

City of Alexandria, Virginia

MEMORANDUM

DATE: APRIL 22, 2008

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: JAMES K. HARTMANN, CITY MANAGER

SUBJECT: BUDGET MEMO # 114 : COST FOR ESTABLISHING AND RUNNING A PM2.5 AIR QUALITY MONITORING STATION

The following is in response to Councilman Smedberg's request for the cost to install an additional air quality monitor at the Mirant power plant.

The City has an ambient air monitoring program and monitors NO_x (oxides of Nitrogen), CO (Carbon Monoxide), SO_x (Oxides of Sulfur), Ozone and PM₁₀ (Particulate matter less than 10 micron in size). The City itself does not currently monitor for PM_{2.5} (Particulate matter less than 2.5 micron), however Mirant is required to operate two PM_{2.5} monitoring stations as part of their permit. There are also PM_{2.5} monitoring stations in Arlington and Fairfax County.

The City has concerns regarding PM_{2.5} impacts from the emissions from the Mirant power plant. This is primarily due to its short stacks, high emission levels and stack configuration that cause downwash impacts on immediate neighborhood. The current permit issued by VDEQ (Virginia Department of Environmental Quality) requires Mirant to operate two PM_{2.5} specialty monitors, which were installed immediately around Mirant facility. Additionally, VDEQ has committed to installation of an additional PM_{2.5} monitor in the City in FY2009. Although the location of this monitor has not been decided, City staff will work to have the monitor installed around Mirant Facility where meaningful data can be obtained. This monitor will be funded by VDEQ at no cost to the City.

If the City chooses to operate an additional monitor above and beyond the one being proposed by VDEQ, it will require extensive resources. The costs will range from \$65,000 to \$165,000 based on one year of monitoring, assuming purchase of the equipment and operations being contracted out. The annual operating costs will range from \$36,000 to \$92,000. The cost estimates were developed with input from David Sullivan of Sullivan Consulting who is very familiar with the Mirant issue. The range of costs includes various alternatives that included alternatives for a duplicate station and continuous monitoring, as were suggested by David Sullivan.

Based on the information above, the staff believes it will not be cost effective for the City to pursue installation of an additional monitor at this time.