EXHIBIT NO. 1

W.S.
3-31-04

City of Alexandria, Virginia

MEMORANDUM

DATE: MARCH 29, 2004

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

THROUGH: PHILIP SUNDERLAND, CITY MANAGER PS

FROM: RICHARD BAIER, DIRECTOR, DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SUBJECT: AIR QUALITY ISSUES RELATED TO THE OPERATIONS AT MIRANT POTOMAC RIVER GENERATING PLANT

The purpose of this memorandum is to provide an update concerning the two significant air quality issues related to emissions from the Mirant Potomac River Plant, particulate matter (PM) and oxides of nitrogen (NOx). These issues will be discussed at the Council work session this Wednesday evening, at 5:30 PM in the work room. Attachment I is the agenda for the meeting.

Particulate Matter Emissions

A memorandum to Council, dated November 7, 2003, (Attachment II) provided a summary of information included in the Mirant Power Plant Emissions and Health Effects Report submitted to the City on August 20, 2003, by Ms. Elizabeth Chimento and Mr. Poul Hertel. The November 7 memorandum provided background information on the PM and NOx issues concerning the Mirant plant. The last section of the memorandum described the short and medium term plans and actions the City was pursuing to address these issues.

One of those actions was to retain Dr. Jonathan Levy, an Assistant Professor at the Harvard School of Public Health and an author of one of the studies included in the Chimento/Hertel Report, to do an analysis of the PM impacts in Alexandria from the Mirant Plant. Attachment III is a copy of Dr. Levy's draft report. (Staff has requested that an executive summary and a few clarifications be added, and Dr. Levy has indicated he will be making some editorial changes.) The final report is expected to be completed by the end of April. These minor revisions will not alter the overall findings and conclusions. Dr. Levy will be available by conference call at the work session.

Dr. Levy's analysis for the City built on his earlier work evaluated the health impacts of very small particulate matter emissions – particulate of less than 2.5 microns in diameter which are readily inhaled – from the five power plants in the Washington, D.C. region, including Mirant's Potomac River Plant. Dr. Levy's analysis focused on the impact to PM 2.5 levels in Alexandria and potential associated health impacts as a result of the emissions from the Mirant's plant and other plants in the Washington region.

Below is some of the background information and the more relevant findings included in Dr. Levy's draft report:

1. The National Ambient Air Quality Standard (NAAQS) for PM 2.5 is 15 $\mu g/m^3$. Like all such standards, this NAAQS is not meant to be a zero-risk level.
2. Ambient monitoring data show that annual average PM 2.5 concentrations in Alexandria are approximately 13-15 $\mu g/m^3$ (micrograms per cubic meter) just below the NAAQS. These concentrations are very similar to levels in Arlington, Fairfax and Loudoun Counties.
3. The PM 2.5 emissions from the five power plants in the Washington region, including the Mirant plant, contribute 4 to 8% of the total PM 2.5 levels in the City; of this 4 to 8%, the Mirant plant contributes 29 to 54%.
4. There is evidence linking exposure to PM 2.5 with a variety of adverse health impacts, including respiratory symptoms, hospitalizations for respiratory or cardiovascular disease, and premature mortality.
5. The PM 2.5 emissions from the five power plants in the Washington region, including the Mirant plant, increase the risks of adverse health impacts, on the approximate order of 2.3 premature deaths, 0.7 cardiovascular hospital admissions and 1.2 asthma related admissions per year in Alexandria.
6. If the Best Available Control Technology – the technology required to be installed on new power plants today – were installed on all five plants in the Washington region, the increased risks above would be reduced by about 25% to 1.7 premature deaths, 0.5 cardiovascular hospital admissions and 0.9 asthma related admissions per year.
7. The PM 2.5 emissions from the Mirant plant increase the risks of adverse health effects, on the approximate order of 0.9 premature deaths, 0.3 cardiovascular hospital admissions and 0.4 asthma related admissions per year in Alexandria.
8. If Best Available Control Technology were installed at the Mirant plant, the risks above would be reduced to 0.5 premature deaths, 0.2 cardiovascular hospital admissions and 0.3 asthma related admissions per year.

As previously mentioned, Dr. Levy will be available by conference call at the work session.

NOx Emissions

Since the November 7 memo, there have been a couple of significant actions impacting NOx issues at the Mirant plant. First, the USEPA issued a Notice of Violation (NOV) on January 22, 2004, to Mirant for the same violation that VDEQ had previously issued an NOV for exceeding the summertime NOx cap of 1,019 tons between May 1 and September 30, 2003. Second, VDEQ is currently in the process of reissuing the operating permit for the Mirant plant with the same NOx cap of 1,019 tons. However, as proposed, the draft permit prohibits the use of trading to achieve compliance. The permit is currently out for public comment and VDEQ has scheduled a public hearing for April 12, 2004, at 6:30 PM at Lee Center. City staff is in the process of developing comments for that hearing.

VDEQ and Mirant are currently discussing options for achieving compliance with, or otherwise dealing with, the operating permit and the NOx cap. Since Mirant will not be able to install the necessary emissions control technology by this summer, it is likely Mirant will enter into a consent agreement with VDEQ that would include a compliance schedule for the installation of control equipment, a section on penalties including fines and possibly a requirement for supplemental environmental projects. As previously mentioned, trading or purchasing credits is not allowable under the draft new permit; however, trading or obtaining NOx reductions at one or more other NOX-producing facilities in the region, and trading these reductions for the reductions otherwise required at the Mirant plant could be part of a consent agreement.

Among the NOx control proposals currently being discussed is the installation of "separate overfire air operational improvements" on the plant's boiler units 3, 4, and 5, which is projected to result in a 30% reduction of NOx emissions from these boilers. This level of emission reductions, however, would likely not produce the amount of reductions necessary for the plant to comply with the applicable NOx cap.

Another option for Mirant to achieve the required NOx reductions is to install NOx-control technology similar to that now in use at the waste-to-energy facility ("selective non-catalytic reduction" or "SNCR" technology). This involves the injection of ammonia into the flue gas stream to control NOx emissions. This technology raises important safety concerns, in that it would involve the delivery of large quantities of ammonia (or a similar compound) by train or tanker truck to the Mirant plant and the storage of large quantities at the site. In addition, another potential negative is called ammonia slippage, where excess ammonia does not fully react and, as a result, is ammonia is released from the stack creating potential odor problems near the plant.

Finally, a further way for Mirant to meet the NOx emissions requirements at its Alexandria plant is to change the type of fuel that is burned at the plant, from coal to natural gas. This would require bringing a high pressure gas line to the plant and significantly altering the boilers, at very significant costs.

All of these options have positive and negative impacts that will be discussed in more detail at the work session.

Attachments:

Attachment I:	Draft Agenda for the March 31, 2004, work session
Attachment II:	Memo to Mayor and City Council from the City Manager dated November 7, 2003 (without attachments)
Attachment III:	Dr. Levy's Draft Report "Analysis of Particulate Matter Impacts for the City of Alexandria"

cc: Charles Konigsberg, M.D., Director, Alexandria Health Department
Michele Evans, Assistant City Manager
Bernard Caton, Legislative Director
William Skrabak, Chief, Div. Environmental Quality, T&ES