



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 10009, Richmond, Virginia 23240

Fax (804) 698-4500 TDD (804) 698-4021

www.deq.virginia.gov

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

Robert G. Burnley
Director

(804) 698-4000
1-800-592-5482

August 19, 2005

Lisa D. Johnson, President
Mirant Potomac River, LLC
8711 Westphalia Road
Upper Marlboro, Maryland 20774

Dear Ms. Johnson:

DEQ is in receipt of the results of Mirant's "downwash" modeling provided by Mirant to DEQ pursuant to the consent special order between the State Air Pollution Control Board and Mirant Potomac River, LLC.

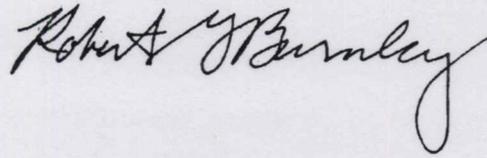
A cursory review of the modeling reveals that emissions from the Potomac River Generating Station result in, cause or substantially contribute to *serious* violations of the primary national ambient air quality standards or "NAAQS" for sulfur dioxide (SO₂), nitrogen dioxide (NO₂) and PM₁₀. NAAQS are established by the U. S. Environmental Protection Agency at concentrations necessary to protect human health with an adequate margin of safety.

The Virginia Air Pollution Control Regulations at 9 VAC 5-20-180(I) provides as follows: *Regardless of any other provision of this section, the owner of any facility subject to the Regulations for the Control and Abatement of Air Pollution shall, upon request of the Board, reduce the level of operation at the facility if the Board determines that this is necessary to prevent a violation of any primary ambient air quality standard. Under worst case conditions, the Board may order that the owner shut down the facility, if there is no other method of operation to avoid a violation of the primary ambient air quality standard. The Board reserves the right to prescribe the method of determining if a facility will cause such a violation. In such cases, the facility shall not be returned to operation until it and the associated air pollution control equipment are able to operate without violation of any primary ambient air quality standard.* (Emphasis added).

Because of the serious violations of the human health-based NAAQS, and as provided in 9 VAC 5-20-180(I), I am writing on behalf of the Board to request that Mirant *immediately* undertake such action as is necessary to ensure protection of human health and the environment, in the area surrounding the Potomac River Generating Station, including the potential reduction of levels of operation, or potential shut down of the facility. A summary of the actions being taken and their progress toward eliminating NAAQS violations is to be provided to DEQ no later than 2 pm, Wednesday, August 24, 2005.

Failure to comply with this request will result in DEQ taking appropriate and immediate enforcement action pursuant to § 10.1-1309 of the Air Pollution Control Law.

Sincerely,

A handwritten signature in black ink that reads "Robert G. Burnley". The signature is written in a cursive style with a large, looping "y" at the end.

Robert G. Burnley

C: W. Tayloe Murphy, Jr.
Secretary of Natural Resources

Carl Josephson – Office of the Attorney General

Michael G. Dowd – DEQ
Ken McBee – DEQ
Jeffery Steers - DEQ

RGB:dlm



William D. Euille
Mayor

City of Alexandria, Virginia
 301 King Street, Suite 2300
 Alexandria, Virginia 22314



City Hall (703) 838-4500
Home (703) 836-2680
Fax (703) 838-6433
alexwamayor@aol.com

August 24, 2005

Robert G. Burnley, Director
 Virginia Department of Environmental Quality
 629 East Main Street
 Richmond, VA 23219

Re: Mirant, Potomac River Generating Station located at 1400 N. Royal Street
 Alexandria, Virginia

Dear Director Burnley:

Thank you for taking the time today to discuss with City of Alexandria representatives our concerns regarding the continuing operation of Mirant's Potomac River Generating Station and the continuing impact on the air quality of the City's residents.

The Downwash modeling study submitted by Mirant reaffirms the City's position that emissions from the plant are significantly impacting air quality in the City and jeopardizing the health of residents in our community. The science is clear – the modeling demonstrates that emissions from this facility are violating several National Ambient Air Quality Standards that are designed to be protective of human health including those for NO₂, PM₁₀, and SO₂. In many cases the exceedences are several times the NAAQS. For example, the modeling shows that the maximum concentration of the SO₂ at the 24 hour level is 14 times the safe standard.

As discussed, the City has also recently completed its own modeling, which shows even higher concentrations and exceedences for NO₂, PM₁₀ and SO₂. As a result of concerns about health impacts from toxic pollutants and PM_{2.5}, the City also modeled Hydrogen Chloride, Hydrogen Fluoride and PM_{2.5}. The results found that the NAAQS for PM_{2.5} is also exceeded, and the Virginia DEQ toxics guidelines for Hydrogen Chloride and Hydrogen Fluoride are also exceeded. Previously, VDEQ staff agreed to conduct similar air toxics modeling for a comprehensive list of toxic air pollutants and the City looks forward to sharing the results of the City's modeling, and further exploring this issue, with VDEQ staff.

"Home Town of George Washington and Robert E. Lee"

Robert G. Burnley, Director
August 24, 2005
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The City is deeply concerned that these violations of the NAAQS likely have been occurring for many years, possibly since they were adopted, and have directly affected not just the residents of Marina Towers, but all of the residents within one kilometer of the plant. In addition, in its pleadings filed March 4, 2005, with the Virginia State Corporation Commission, Case No. PST-2004-00042, Mirant describes its Potomac River Plant as "functionally obsolete," and stated that, because of physical deterioration to the plant "The remaining useful life [of this facility] as of January 1, 2002, is estimated at 5 years." In light of these facts, approving capital improvements which would prolong the life of the plant as a remedy for these NAAQS violations would contravene the spirit, if not the letter, of the Clean Air Act and its NSR provisions. Accordingly, the City must conclude that the only appropriate enforcement action is the complete cessation of operations at the facility as soon as is practicable.

You may recall that the City forwarded to you in a letter dated July 2, 2004, copies of the action City Council took on June 22, 2004, which outlined several actions for the City to implement to achieve the City's long term goal of closing the Potomac River Plant. Subsequently, in December 2004 and January 2005, the City has revoked Mirant's two Special Use Permits and revoked the noncomplying use status of the Generating Station, which was granted as part of the 1992 rezoning. As a result, any capital investment in the Potomac River Plant, including additional air pollution control equipment, raising the stacks, or changing fuels would require City Council approval. Given the degree of NAAQS exceedances, and Mirant's description of the condition of this plant, it is likely that any significant modifications to allow the plant to continue in operation would themselves have significant negative zoning impacts on the community. Staff could not support, nor would the Council likely approve, modifications which had such impacts.

I will continue to keep you informed of information developed by the City, and the City's actions, related to this issue. I would also request your continued consideration of the City's views as VDEQ proceeds to effect a remedy for the air quality violations at the Mirant Potomac River plant. The City would again request to be kept informed as VDEQ considers the issues before the agency. On behalf of the City and its residents, I would like to express our appreciation for the agency's efforts to protect the health of our residents. In the meantime, if you have any questions, please contact Rich Baier at 703-838-4966.

Sincerely,


William D. Buille
Mayor

Robert G. Burnley, Director
August 24, 2005
Page 3

cc: The Honorable Members of the City Council
The Honorable Judith Jagdmann, Attorney General
W. Tayloe Murphy, Jr., Secretary of Natural Resources
Tim Aiken, Legislative Director, Congressman Jim Moran's Office
James K. Hartmann, City Manager
Richard J. Baier, P.E., Director Transportation and Environmental Services
Ignacio Pessoa, City Attorney
John Daniel, Chief, Director, Air Quality Programs
Michael Dowd, Air Enforcement Office
Jeffery Steers, Regional Director, NVRO
William Skrabak, Division of Environmental Quality, T&ES

Our Letter to Citizens of Alexandria and Metro D.C.

Why Mirant Temporarily Shut Down Its Potomac River Power Plant



You've probably heard that Mirant's Potomac River plant has been temporarily shut down. This action has raised questions. We want to take a moment to explain what's going on.

Mirant is in business to provide reliable electricity. That's what thousands of Mirant employees do—day in and day out—in communities across the United States. We're proud of our work.

Like any business, we need to serve our customers and earn a profit. But when the results of a new computer modeling air quality study showed that emissions from our Potomac River plant could combine with other emissions in the area to affect public health, we knew what we had to do.

We chose public health.

Despite the fact that our plant provides reliable power to hundreds of thousands of people in metro D.C., the decision was obvious.

The protection of public health was our first priority, even though the modeling study was based on a "worst-case" set of hypothetical assumptions—*not actual plant operations which are within permitted limits*. Another consideration was the short deadline the Virginia Department of Environmental Quality (DEQ) gave us to implement a solution.

We acted quickly. We first reduced the plant's operation to minimums before shutting it down temporarily. Along the way, we notified many parties—even the White House—of our circumstances and plans. No one was caught off guard.

We're working to find the right solution.

Our engineers and operations experts continue to work on ways to meet DEQ's stringent air emission requirements and address findings of the computer modeling study.

We're confident we can find the right solution and hopeful we can gain cooperation to put it in place. That's why we're in ongoing discussions with many parties.

Our goal is to return the Potomac River plant to operation as soon as possible. We are encouraging state and federal agencies to help us find the balance between protecting public health and providing reliable power.

At the same time, we'd like to make clear that Mirant may be ordered to restart the plant immediately. That decision is up to an appropriate federal authority, not Mirant. If told to restart, we will.

We'd make the same decision all over again.

Our employees and their families live and work in the Alexandria and D.C. area. We breathe the air you breathe.

In the few years we've owned the Potomac River plant, and power plants in Maryland, our regional team has been focused daily on improving the air. Our track record is good and getting better.

Mirant's four plants in the D.C. area, including Potomac River, comply with operating permit emission limits. In fact, Maryland's Department of the Environment has said publicly that monitoring shows that our plants in that state are "well within the limits."

Despite facts, when faced with the results of the modeling study, we acted with caution and in the public interest. Taking immediate action to temporarily shut down was the right thing to do. We'd make the same decision all over again.

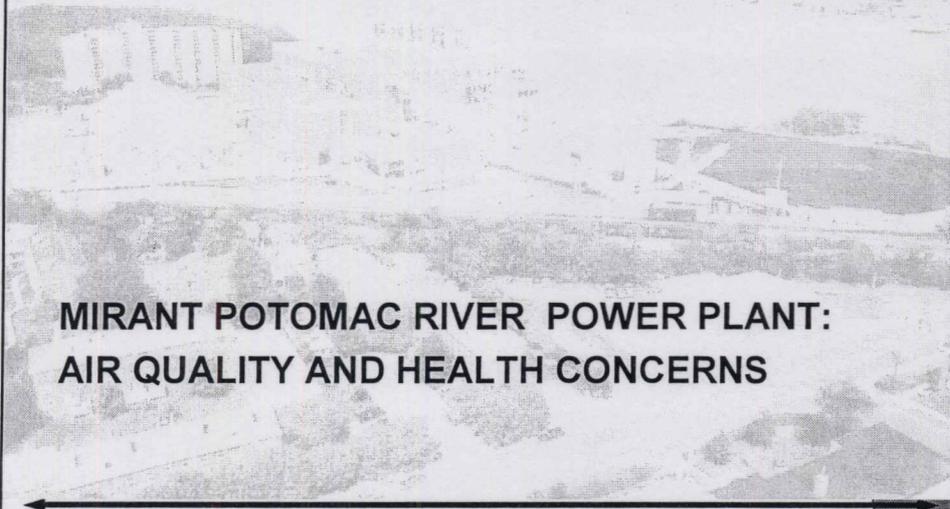
For more detailed information on this important public issue, please visit www.mirant.com/potomac_river_plant.

Sincerely,

Curtis A. Morgan
Executive Vice President and
Chief Operating Officer

Lisa D. Johnson
President
Northeast and Mid-Atlantic

CITY OF ALEXANDRIA



MIRANT POTOMAC RIVER POWER PLANT: AIR QUALITY AND HEALTH CONCERNS



City of Alexandria

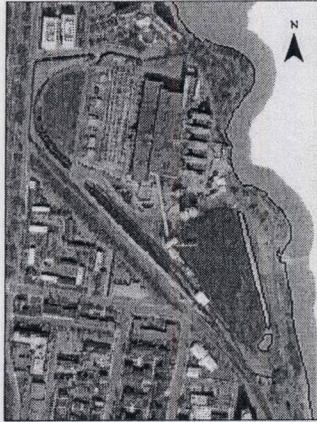
MIRANT Potomac River Power Plant

- Built in 1949 on City's waterfront (28 acres)
- 482 MW (smallest of Mirant's DC area power plants and represents less than 0.5% of PJM's load)
 - Morgantown 1492 MW (Charles County MD)
 - Chalk Point 2429 MW (PG County, MD)
 - Dickerson 853 MW (Montgomery County, MD)
- Plant is owned by Mirant and the land is owned by Pepco
- Some of the upgrades contemplated in the proposed consent decree are underway. These are not intended to address downwash issue.



City of Alexandria

MIRANT Potomac River Power Plant



Community Impacts:

- Coal and Ash Handling
- Railroad Coal Deliveries
- Noise from Plant Operation
- Accidental discharges to the ..Potomac River
- Last but not the least
AIR POLLUTION



City of Alexandria

2001

- Community raised concerns about health impacts from the plant. The City begins monitoring.
- CH2MHill (Mirant's consultant) study showed that 29 tons of fly ash and 10 tons of coal dust leaves the site per year as fugitive, non-stack, uncontrolled emissions.
- The City begins to work with VADEQ and Mirant to address the issues.

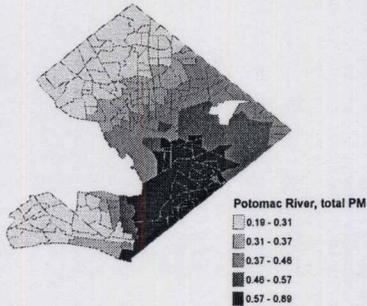


City of Alexandria

2003

The City hired Dr. Jonathan Levy of Harvard School of Public Health to study emissions from Mirant's Potomac Plant and its impacts on the City. Among his conclusions included (April 2004):

- **Contributes to negative health effects within the City and regionally**



Current impacts from Potomac River ($\mu\text{g}/\text{m}^3$, annual average, primary + secondary)



City of Alexandria

2004

- **Enforcement actions by USEPA and VADEQ initiated for exceeding NOx permit limits.**
- **In Sept. 2004, the VADEQ, EPA, and MDE filed in Federal Court, a consent decree.**
- **Mirant is currently renegotiating consent decree.**
- **Mirant signs Consent Order with VADEQ that required Air Quality Modeling and downwash analysis.**



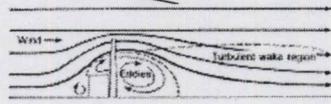
City of Alexandria

2005

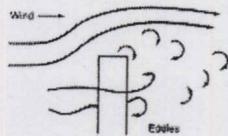
- August 19, 2005: Mirant submits its own modeling study and VADEQ immediately requests it to take steps to address NAAQS (National Ambient Air Quality Standards) violations.
- City conducted its own modeling confirming Mirant's results. The City's analysis also found exceedances of VA Toxics standards.
- August 22, 2005: Mirant responds by lowering the production and then proceeded to close the plant temporarily on August 24, 2005.



City of Alexandria



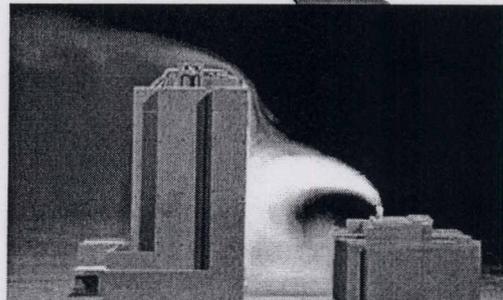
(a)



(b)

Why is Downwash a Concern here?

- Short stack height because of aviation safety
- Elevated structures in immediate proximity.
- Significant residential community in close proximity.



City of Alexandria

What did the modeling studies show?

Based on actual emissions and meteorological data:

- For criteria pollutants PM10, PM2.5 and SO2, maximum short term impacts exceed the NAAQS by 5-18 times
- For annual impacts for NO2, PM2.5, PM10, and SO2, chronic exposure levels exceeded NAAQS 3-12 times
- For toxic emissions such as hydrogen chloride and hydrogen fluoride, impact exceeded Virginia guidelines by up to 5 times.

REMEMBER:

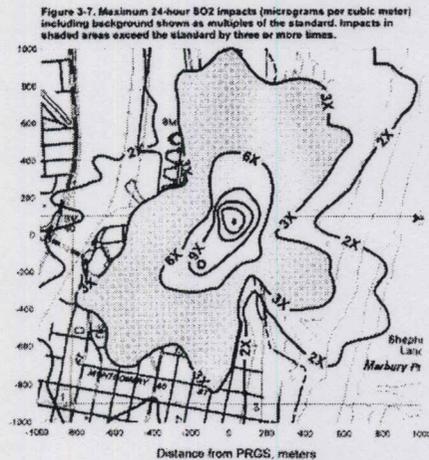
NAAQS \neq zero risk



City of Alexandria

What did the modeling study show?

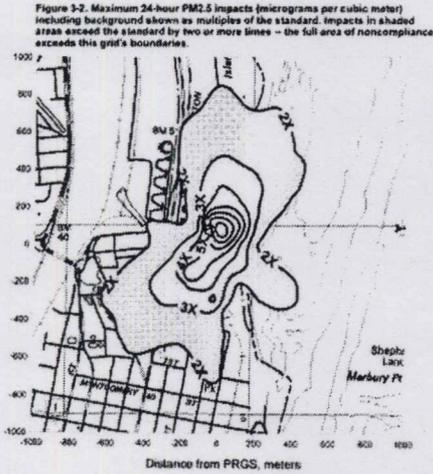
24 hr
SO2



City of Alexandria

What did the modeling study show?

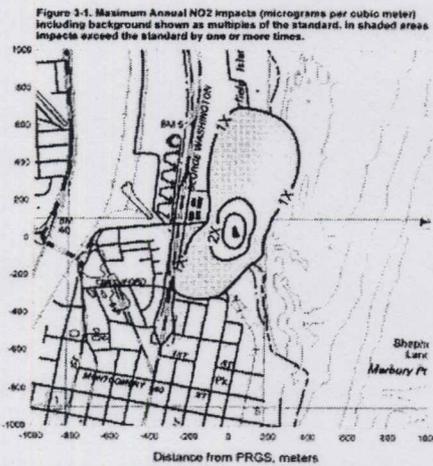
24 hr.
PM2.5



City of Alexandria

What did the modeling study show?

Annual
NO2



City of Alexandria

Local/ Regional Impacts

- Alexandria's population living closer to the plant (approx 5000) is exposed to unacceptably high levels of pollution negatively impacting their health and environment because of downwash.
- DC being downwind is impacted the most from dispersion (not downwash) of emissions from this plant.
- Clear scientific evidence shows that the region will be better off without an outdated, outlived, significant pollution source in its midst.



City of Alexandria

Other regional impacts

- Power reliability for the region has been raised as an issue (Remember, Potomac Plant represents less than 0.5% of the power load handled by PJM).
- City supports reliable power, but, not at the expense of health and welfare of its citizens.
- Mirant, in its own filings with VA State Corporation Commission, has represented that plant has limited useful life remaining (2007).
- Power reliability of Nations Capital should not be dependent on an outdated plant.
- Region should support improving power reliability by upgrading transmission facilities.



City of Alexandria

