

City of Alexandria, Virginia

MEMORANDUM

DATE: OCTOBER 25, 2004

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER *ps*

SUBJECT: CONSIDERATION OF CITY COMMENTS ON (1) PROPOSED AMENDMENTS TO THE OPERATING PERMIT FOR THE MIRANT POTOMAC RIVER PLANT AND (2) THE PROPOSED CONSENT DECREE THAT ADDRESSES THE NOX EMISSIONS FROM THE POTOMAC RIVER PLANT AND THREE OTHER MIRANT GENERATING FACILITIES IN THE WASHINGTON, D.C. REGION

ISSUE: Consideration of City comments on (1) proposed amendments to the operating permit for the Mirant Potomac River Plant and (2) the proposed consent decree that addresses the NO_x emissions from the Potomac River Plant and three other Mirant Generating Facilities in the Washington, D.C. region.

RECOMMENDATIONS: That City Council:

- (1) Authorize the City Manager to submit on behalf of the City comments to the Virginia Department of Environmental Quality on the draft state operating permit and other issues concerning the operation of the Mirant Potomac River plant. These comments are due no later than October 28. The City's proposed comments on the draft state permit are provided in Attachment I;
- (2) Authorize the City Manager to submit on behalf of the City comments to the United States Department of Justice on the proposed consent decree that addresses the NO_x emissions from the four Mirant generating facilities in the Washington, D.C. region. These comments are due no later than November 8. The City's comments on the consent decree will be very similar to those on the draft operating permit (Attachment I). However, staff seeks authorization to revise and expand the City's comments on the consent decree before the filing deadline for these comments; and
- (3) Receive a copy of the Mirant Tracking Matrix which is provided in Attachment II. This matrix will be updated regularly, and will be used to track the numerous pending activities involving the Mirant Potomac River plant.

DISCUSSION: As you know, the Potomac River plant was issued a Notice of Violation (NOV) for exceeding its ozone season (May through September) NO_x emissions limit in 2003. The Virginia Department of Environmental Quality (DEQ), the U.S. Environmental Protection Agency (EPA), the U.S. Department of Justice (DOJ) and Mirant have reached a settlement on this violation and, as a result, a consent decree was filed in federal court on September 27. Notice of the consent decree has been published in the Federal Register, and public comment on the decree will be accepted through November 8 by the DOJ. Although the City was not a party to the settlement discussions, City staff, pursuant to Council's directive, tracked the progress of the negotiations and provided input designed to ensure that the interests of Alexandria were reflected in any agreement reached by the parties. The public comment period provides the City an additional opportunity to formally comment on the consent decree.

Since the consent decree arises out of a violation of the NO_x emissions limit at the Potomac River plant, the decree contains a number of provisions that are directed at NO_x emissions. However, these provisions are not limited to the Potomac River plant, but rather include NO_x reductions and new emissions limits at Mirant's three other regional generating plants. In addition, the consent decree (largely, as a result of City efforts) also identifies a number of control measures - - referred to as "Environmental Projects" - - that will achieve significant reductions in particulate and fugitive dust emissions from the Potomac River plant.

The conditions and limits on NO_x emissions in the consent decree that apply to the Potomac River Plant have been incorporated into a new draft operating permit to be issued by DEQ that is also currently out for public comment. DEQ will take comments on the draft permit through October 28.

With the assistance and input from the City's technical consultant, comments on both the operating permit and the consent decree have been prepared and provided for your consideration. A copy of the proposed City comments on the draft operating permit are provided as Attachment I. We envision the City's comments on the consent decree to be basically the same.

The attached comments reflect and are consistent with the long term goals for Mirant adopted by the City Council. A brief summary of the comments is provided below.

- The comments oppose the issuance of an amended state operating permit before it is clear that the permit's conditions will ensure the Potomac River plant's compliance with all ambient air quality standards and all relevant state and federal air quality regulations. This means that, before any amended state permit may be issued, the results of the downwash study must be completed and any changes to the permit that are needed to ensure the plant's compliance with applicable standards and regulations must be made.
- The comments state that the downwash study and its modeling analysis (described in the consent order between Mirant and DEQ) need to include a thorough assessment of all relevant toxic pollutants emitted by the Potomac River plant, including the metals, organic compounds and acid gases that are emitted by coal-combustion, and PM_{2.5}. The comments also state that, for toxic emissions such as mercury and other hazardous pollutants, the most protective health-based

concentration criteria available must be applied when analyzing the modeling results.

- The comments also question whether the Potomac River plant is in compliance with EPA's regulations for New Source Review, and state that, before any amended operating permit is issued or the consent decree is approved, a determination needs to be made whether or not the plant is in compliance with these regulations.
- The comments request that additional NO_x controls be added to the operating permit to units #1 and #2 at the Potomac River plant, or that units #1 and #2 not be operated at all on high ozone days.
- The comments request that annual and daily NO_x emission limits on the Potomac River plant be added as additional conditions of the operating permit.
- Finally, the comments state that the proposed monitoring program (in and around the Potomac River plant) in the consent decree is inadequate, and that additional monitoring which fully meets monitoring guidelines issued by EPA must be required.

On October 12, Council directed the City Manager to establish the Mirant Community Monitoring Group (MCMG), with membership consisting of Vice-Mayor Pepper, Councilman Smedberg, Mr. Poul Hertel, Ms. Elizabeth Chimento and representatives from the Northeast Citizens Association, the North Old Town Independent Citizens Association, Marina Towers and the Environmental Policy Commission. A list of the members of the MCMG is provided as Attachment III. The first meeting of this group will be scheduled in early November, and DEQ has agreed to attend this first meeting to present information on the consent decree and other Mirant issues.

ATTACHMENTS:

- I. Proposed City comments on the Draft State Operating Permit for the Mirant Plant.
- II. Mirant Tracking Matrix
- III. Membership list of the Mirant Community Monitoring Group

STAFF:

Richard Baier, P.E., Director, T&ES
William J. Skrabak, Division Chief, Environmental Quality, T&ES

**CITY OF ALEXANDRIA
COMMENTS**

**REVISED VIRGINIA STATE IMPLEMENTATION PLAN
DRAFT STATE OPERATING PERMIT
MIRANT POTOMAC POWER PLANT PERMIT**

INTRODUCTION

The City of Alexandria hereby submits its Comments in response to the Public Hearing Notice and request for comments concerning the revision to the Commonwealth of Virginia State Implementation Plan (“SIP”) consisting of a portion of a draft State Operating Permit (“SOP”) for the Potomac River Generating Station (“PRGS”) operated by Mirant Mid-Atlantic, LLC, (“Mirant”) and located at 1400 North Royal Street, Alexandria, Virginia. In reviewing the draft SOP, Alexandria’s primary interests are (i) the direct, adverse public health and other impacts on the residents of Alexandria from the emissions and related activities of the PRGS, and (ii) within the region, to avoid a disproportionate adverse impact on Alexandria neighborhoods and residents from such activities.

Alexandria is opposed to the implementation of the draft SOP in its present form. As set out in more detail below, there are numerous deficiencies in the draft SOP and the proposed Consent Decree that may have adverse effects on the health and welfare of the residents of Alexandria. The draft SOP fails to ensure that the emissions of oxides of nitrogen (“NOx”) from the PRGS will allow the facility to comply with ambient air quality standards. It also relies on assumptions that do not accommodate potential excessive NOx emissions. Further, there is no showing that the PRGS satisfies federal guidelines for air toxic pollutants or reduces as much as possible the fugitive dust from the plant’s operations. In addition, there is no clear demonstration that the establishment a Mirant “system” of power plants (*i.e.*, what the proposed Consent Decree describes as System-Wide” for the PRGS and the Morgantown, Dickerson and Chalk Point power plants in Maryland) and the system-wide regulation of NOx emissions will actually achieve the requirements of Virginia’s SIP or necessarily result in improved air quality for Alexandria. While it is believed that the system- wide NOx reductions will provide greater air quality benefits for the City of Alexandria and Northern Virginia, DEQ should demonstrate through modeling that these system-wide reductions will provide greater air quality benefits to the City, as well as the region.

This draft SOP should not proceed without a full assessment of the PRGS’s comprehensive compliance with air quality requirements.

BACKGROUND

The Mirant PRGS is located in a densely populated urban area, adjacent to the Potomac River and surrounded by and in close proximity to residential communities. It is an outdated coal-fired generating plant that predates the federal Clean Air Act, thereby

avoiding certain requirements intended to promote compliance with air quality standards. The PRGS is highly inefficient with stack heights well below what are usually necessary to satisfy current ambient air quality standards. Mirant also has filed for protection under the bankruptcy laws, an action that raises concerns about its long-term viability and its ability to implement any environmental improvements.

Alexandria has expressed, on numerous occasions, its concerns with the impacts on the surrounding communities and on the city as a whole of such a plant in precisely that location. On June 22, 2004, the Alexandria Mayor and City Council adopted a long term strategy for the cessation of the operations of the PRGS at its current location and for the utilization of the site in a manner more compatible with the city's residential communities. The draft SOP, as well as the proposed Consent Decree, while not directly furthering this strategy, provide the opportunity for Alexandria to promote the implementation of its strategy and the protection of its citizens. For this purpose, Alexandria engaged an independent consultant, Ms. Maureen Barrett of AERO Engineering Services, who, in close coordination with Alexandria's technical staff, has provided the framework for a scientific and technical evaluation of the draft SOP and, as a related matter, the proposed Consent Decree, on which these comments are based.

TECHNICAL COMMENTS

- 1. Screening modeling using estimated plant data shows that the PRGS's air impacts exceed federal and Virginia Ambient Air Quality Standards ("AAQS"). The proposed SOP is deficient because it does not define permit terms that constrain the PRGS to a plant and operating configuration that will necessarily produce compliance with AAQS and the 1-hour NO_x guideline. Therefore, an additional condition should be added to the operating permit that requires that the PRGS comply with all AAQS, including NO_x; in addition, DEQ should withhold issuance of the SOP until after the downwash study, required under the Consent Order, has been completed and any corrective actions have been implemented and have demonstrated AAQS compliance.**

Virginia's regulations for the control and abatement of air pollution state that "ambient air quality standards define levels of air quality which, allowing an adequate margin of safety, are necessary to protect the public health" (9 VAC 5 Chapter 30). Although the PRGS source may have not been required to demonstrate compliance with AAQS at the time of its construction, there should not be a waiver in this situation from the requirement to apply AAQS as the bases for effective and reasonable management of local and regional air resources.

It is likely that for many years and perhaps decades, the PRGS's emissions have far exceeded, and continue to exceed, the allowable ambient levels that Virginia administers as necessary limits for the protection of public health. Table 1 shows the results using US EPA's SCREEN3 to predict the PRGS's maximum impacts of NO_x, PM₁₀ and SO₂ on the surrounding communities using estimated stack and emission

characteristics derived from conversations with DEQ personnel, visual inspection and US EPA data (eGRID). These results show that PRGS's impacts exceed, in most cases by several times, the ambient air quality standards and health-based guideline value for NO_x.¹

It is important to note that these predicted impacts may err on the side of under-prediction because 1) these values do not reflect PRGS's ability to emit more than these assumed values for annual emissions; for example, the facility emitted 7,060 tons of NO_x in 1996 and 5,693 tons in 2000 while Table 1's values reflect 5,000 tons per year of NO_x, and 2) short-term limits will likely be much higher than the assumptions of Table 1 because the proposed State Operating Permit places no constraints on the facility's no short-term limits.

Table 1. Preliminary Screening Model Results of PRGS's Compliance with Health-based 9 VAC 5 Chapter 30's Ambient Air Quality Standards and CAL EPA 1-hour NO_x Guideline²					
Pollutant	Avg. Period	Max. Modeled Conc. (μ/m ³)	Estimated Backgrnd. Conc. (μ/m ³)	Total Conc. (μ/m ³)	Allowable Conc. (μ/m ³)
N02	1-hour (guide.)	4,008 to 10,690			
	Annual	200. to 533.	20.	220 to 553.	100
PM10	24-hour	194. to 518.	50	244. to 568.	150
	Annual	24. to 64.	20	44. to 84.	50
SO2	3-hour	8,943. to 23,877.	150.	9,093 to 24,027.	1300
	24-hour	4,472. to 11,940.	75.	4,547. to 12,015.	365
	Annual	558. to 1,489.	10.	568. to 1,499.	80

It is also likely that for several wind directions the PRGS building itself, or the Marina Towers structure, produce a cavity effect on emissions from the short stacks. For

¹ This analysis includes the NO_x 1-hour guideline to assess compliance with health-based AAQS; for example, Cal EPA and Vermont use a value of 472 micrograms per cubic meter. The California Air Resources Board is currently reviewing this 1-hour guideline value to determine if it adequately protects children.

² **Table 1 Notes:** (a) All values are based on approximate annual emissions from facility based on DEQ and US EPA records (NO_x: 5000 tons, approximated; PM10: 606 tons in year 2003; SO₂: 13,947 tons from year 2000); (b) Range of values derives from two stack height and building height scenarios used in the analysis; one of a 120 foot stack and 90 foot building height; the other a 144 foot stack and 98 foot building; (c) Longer-term values were derived from the 1-hour screening result using US EPA's recommended conversion values; (d) A receptor was placed at a height representative of the higher floors at Marina Towers, *i.e.*, at 80 feet; and (e) All emissions were assumed to occur from one stack; however, for a north-westerly wind direction, which includes Marina Towers in a downwind direction, the stacks are aligned to some extent.

this situation, short-term impacts could be several times greater than those shown in Table 1. Section 123 of the federal Clean Air Act defines Good Engineering Practice stack height as “the height necessary to ensure that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies or wakes which may be created by the source itself, nearby structures or nearby terrain obstacles.” The United States Environmental Protection Agency (“EPA”) has promulgated regulations that allow one to determine GEP height for a stationary source.³ (40 CFR Part 51.) For PRGS, this GEP height equals approximately 225 feet to 250 feet,⁴ versus the approximately 120 to 140 foot stack in current operation. Thus, each of the stacks at PRGS is approximately 100 feet lower than a stack designed to a height that is necessary to ensure that emissions do not result in excessive concentrations of pollutants in the vicinity of the source.

Mirant should determine the plant and emissions configurations that will allow it to comply with AAQS and the NO_x 1-hour guideline, and the draft SOP should define this configuration as a permit requirement. All configurations should be included as options.

- 2. The air impacts by the PRGS’s toxic air emissions may exceed federal guidelines. The draft SOP should define permit terms that constrain the PRGS to a plant and operating configuration that ensures that the facility’s toxic emissions will comply with the most protective health-based concentration criteria available.**

Virginia DEQ uses the worker-based threshold limit values defined by the American Conference of Governmental and Industrial Hygienists as a basis, and scales these to define ambient guideline levels for impacts of air toxic pollutants (9VAC5-60-230. “Significant Ambient Air Concentration Guidelines,” dated June 14, 2004). However, many states and US EPA use more protective health-based guidelines based on the Integrated Risk Information System and the Reference Concentrations that derive from it.⁵ DEQ and Mirant should determine the plant and emissions configurations that will allow the PRGS to comply with the most protective health-based concentration criteria available, and the draft SOP should define this configuration as a permit requirement. DEQ and Mirant should also use the more conservative concentrations as part of downwash study Mirant is required to undertake as part of the downwash Consent Order.

- 3. The environmental projects within the draft SOP do not include several of the recommendations of Mirant’s own consultant for reducing fugitive dust impacts. The draft SOP should include all of these recommendations,**

³ “New Source Review Workshop Manual, Prevention of Significant Deterioration and Non-attainment Area Permitting,” US EPA, October, 1990.

⁴ Without access to exact building dimensions one cannot properly calculate GEP height; however this value is a fair representation of value of GEP height based on a building height in the 90 to 100 foot range.

⁵ Office of Research and Development, National Center for Environmental Assessment, US EPA.

including, but not limited to, (i) maintenance of the coal piles to reduce side slopes and lower the overall height; (ii) covers for ash transport trucks; and (iii) an EPA-approved perimeter monitoring program.

The settled dust study proposed in the Environmental Projects of the proposed Consent Decree at PRGS does not qualify as an EPA-approved, *i.e.*, EPA reference, method for determining compliance with the ambient air quality standards for PM₁₀ and PM_{2.5}. While the settled dust may provide useful information concerning fugitive dust at the property line, it will not determine whether PM₁₀ and PM_{2.5} concentrations comply with AAQS. The draft SOP and the downwash study should specify terms by which Mirant will determine through modeling the location of the maximum predicted impacts for each of PM₁₀ and PM_{2.5}, and demonstrate, with EPA-approved monitors at these locations, compliance with the AAQS. In addition to the proposed environmental projects, the draft SOP should include requirements for ash truck covers and coal pile side-slope and height reduction practices, as set out in Mirant's consultant's report entitled "Fugitive Dust Review" (CH2M Hill, July 20, 2001).

- 4. The original Possum Point power plant in Northern Virginia is similar to the existing PRGS facility. Its size was approximately 500 MW, all units were coal-fired, and all units were constructed in about 1965 or earlier. The Possum Point plant has since been converted from a coal-fired plant to an efficient gas-fired plant, in part due to a settlement with the Department of Justice and US EPA to resolve charges that the operator failed to obtain a New Source Review ("NSR") permit for the facility (economizer and drafting) upgrades. Before approval of the proposed Consent Decree related to this draft SOP, Mirant should provide to DEQ fuel use and other pertinent records since approximately 1985 to establish that no physical changes were performed which resulted in emissions increases or otherwise triggered NSR requirements. This draft SOP should not go forward before a full assessment has been made of the PRGS's compliance with all air quality requirements.**

Possum Point in Northern Virginia, operated by Virginia Power, converted to natural gas as part of its NSR violation settlement⁶. As part of that settlement, the facility will also install SCR on eight of its plants, resulting in reductions of NO_x of 60,400 tons. Its penalties included a 5.3 million dollar civil penalty, and 13.9 million dollar required expenditure on environmental projects. The PRGS facility is a similarly-aged and similarly-sized facility to the original Possum Point facility. It does not seem likely that PRGS has not undergone some physical modifications since its construction date. These modifications may also have allowed it to increase its capacity and should therefore be assessed against New Source Review thresholds. For example, EPA records show that the facility's annual heat input increased between 1996 and 2000 from 19.7 million MMBtu per year to 26.1 million MMBtu per year, about a 30% increase [US EPA, eGRID]. Before issuing the SOP, DEQ, EPA and Department of Justice should review fuel use and power production records and other pertinent records to determine if

⁶ "Fact Sheet, Virginia Electric Power Company, Clean Air Act Civil Settlement," April, 2003, www.epa.gov/compliance/resources/cases/civil/caa.

physical changes occurred at the PRGS that could account for these or any other emission increases.

5. With the proposed NO_x emission controls for Mirant, the draft SOP does not demonstrate that it will achieve Virginia's SIP requirement.

The permit term that Mirant violated was required by the Virginia SIP as a control measure to achieve compliance with the Washington, D.C. metropolitan statistical area one-hour ozone standard. This proposed SOP and the related Consent Decree relax the PRGS's limits significantly by allowing the PRGS to emit from 731 to 456 more tons of NO_x in the ozone season through the years 2010 and beyond. DEQ should require Mirant to demonstrate with ozone modeling that the draft SOP's proposed NO_x rates for the Mirant "system" are more beneficial for Alexandria, Northern Virginia, and the Washington Non-attainment area than requiring that PRGS be constrained to an ozone season NO_x limit of 1,019 tons.

The SOP should establish an annual NO_x limit for PRGS, so that NO_x budget constraints for the Mirant "system" before the implementation of SCR cannot be met through shifting NO_x emissions to PRGS.

The Virginia NO_x Budget rule states that "the trading mechanism... allows sources to purchase NO_x allowances until such time as they choose to retrofit or replace or shut down older equipment that may not operate as efficiently as new equipment."⁷ The PRGS is a highly in-efficient plant with stacks that are designed to meet Federal Aviation Administration guidelines in the 1950 time frame, not to meet ambient air quality requirements that the majority of electrical generating facilities in the US are constrained to meet. By allowing Mirant to both use allowances to meet its Virginia emission requirements and to operate outside of the constraints of compliance with the health-based AAQS and toxic impact guidelines, this draft SOP provides an unfair market advantage to Mirant over the newer, more-efficient electrical generating facilities that Virginia should be promoting.

6. The modeling analysis proposed in the Consent Order should include a thorough assessment of compliance with toxic pollutants, including the metals, organic compounds and acid gases emitted by coal-combustion and acid gases, and PM_{2.5}.

Currently, the modeling analysis proposed by Mirant includes only an assessment of ambient air impacts of SO₂, NO₂, CO, PM₁₀ and mercury. The EPA's AP-42 (Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume I, September, 1998) shows that bituminous coal combustion is associated with high emissions of metals (arsenic, cadmium, lead, antimony, selenium, manganese, beryllium, cobalt, chromium), acid gases (hydrogen chloride and hydrogen fluoride) and organic compounds (dioxins, furans and poly-aromatic hydrocarbons). These should all be assessed against health-

⁷ Ibid.

based allowable ambient levels that are determined to be the most-protective standards available.

The modeling analysis also does not propose a demonstration with $PM_{2.5}$ standards. Although DEQ has not defined procedures for showing compliance with this standard, this does not provide Mirant relief from the requirement of demonstrating that the facility will not contribute to a violation of this standard. Mirant should propose their own method for predicting their impact on $PM_{2.5}$ ambient concentrations. At a minimum, Mirant can propose a Gaussian dispersion model to estimate the impact of the primary component of $PM_{2.5}$, and make a best engineering estimate of the secondary component of the $PM_{2.5}$ based on the source category's composition of profiles at receptors (see "Guidance for Demonstrating Attainment of Air Quality Goals for $PM_{2.5}$ and Regional Haze," Draft, Jan. 2, 2001, US EPA).

- 7. The air quality compliance demonstration by the PRGS should be as rigorous as the demonstration of compliance that is required of any new facility. Therefore, Mirant should include major sources plus background sources in determining compliance with standards. It should also include the coal yard (coal and fly ash fugitive and point emissions in the coal yard, i.e., baghouses on silos) within the PM_{10} and $PM_{2.5}$ compliance demonstration.**

Currently, Mirant does not propose that interacting sources be included within its modeling demonstration. The significant impact area of the PRGS for each of the modeled pollutants should be determined, and any major source within that significant impact area should be included as an interacting source within the PRGS compliance demonstration. The coal and ash yards' fugitive and point sources (baghouses on silos, for example) should also be included in the PM_{10} and $PM_{2.5}$ modeling analysis. Model impacts should be predicted to the extent of the PRGS's significant impact area for each pollutant.

- 8. Local and regional ozone exceedences occur episodically on days that are hot and, as a result, when power demand is high. It is precisely on these days when the maximum control of emissions of NO_x is most important. Therefore, all units at the PRGS should be subject to NO_x controls. Also, daily NO_x emission limits should be set for the PRGS and the Mirant system as a whole.**

Under the proposed SOP and Consent Decree, units #1 and #2 go uncontrolled with respect to NO_x emissions. The City believes these units should, therefore, not be permitted to operate on those days where air quality is forecast to exceed the ozone AAQS (Code Red days). This is the City's preference; in the alternative, additional NO_x controls should be required in the SOP and Consent Decree. Specifically, the installation of low NO_x burners and SOFA should be required to be installed on units #1 and #2 of the PRGS. In the case of PRGS, it is on forecasted high ozone (code red) days when these two units are most likely to be operated, which is why it is important to not allow the units to go uncontrolled with respect to NO_x emissions.

In addition, as mentioned, ozone exceedences are episodic in nature. As a result of the use of seasonal caps, there is no NOx emissions limit on those days when NOx control is most needed and important. Therefore, the SOP and the consent decree should establish and require daily NOx emission limits for PRGS and the Mirant system derived from the proposed seasonal limits.

CONCLUSION

For the foregoing reasons, the City of Alexandria contends that the draft SOP should not be issued in its current form.

MIRANT ISSUES TRACKING MATRIX			
Area	Actions to be Undertaken	City Role and Responsibility	Status
1. Land Use Regulations	Revoking Special Use Permit No. 2296 granted in 1989.	City Attorney Office and Planning and Zoning Department to undertake necessary actions.	On Planning Commission Docket for November 2004.
	Revocation of Special Use Permit No. 2297 granted in to Mirant predecessor in 1989.	City Attorney Office and Planning and Zoning Department to undertake necessary actions.	On Planning Commission Docket for November 2004.
	Revocation of the noncomplying use status of the Potomac River plant and making it a nonconforming use.	City Attorney Office and Planning and Zoning Department to undertake necessary actions.	On Planning Commission Docket for November 2004.
2. NOX Reduction	Comments on the NOx Consent Decree filed in federal court on September 27, 2004, that requires Mirant to undertake several measures to address NOX and other emissions at Alexandria plant.	T&ES and City consultants preparing comments on proposed NOx consent decree.	Proposed comments on NOx consent decree have been docketed for Council consideration at October 26 meeting.

Area	Actions to be Undertaken	City Role and Responsibility	Status
NOx reductions (continued)	Comments on the amendments to Virginia DEQ operating permit for Potomac River plant that have been proposed based on the NOx Consent Decree.	T&ES and City consultants will prepare comments on proposed amendments.	Proposed comments on amendments have been docketed for Council consideration at October 26 meeting.
	Under the NOx consent decree, Mirant is required to install Separate Over Fired Air (SOFA) and low NOX burners on Units 3, 4, and 5.	If NOx Consent decree is approved, T&ES and City consultants will track progress on installation of this equipment. (This will also be one of the tracking items for the facility audit)	Installation of this equipment is required by May 2005.
	Outside of the NOx consent decree, Mirant is pursuing installation of low NOX burners (LNB) on Units 1 and 2.	T&ES, City Attorney and the consultants will track progress on installation of this equipment. (This will be one of the tracking items for the facility audit.)	Installation of this equipment to be completed by December 2005.
	Under the consent NOx consent decree, maximum ozone season NOX caps are imposed on the Potomac River plant and the other regional Mirant facilities.	T&ES and City consultants will track compliance with these caps. (This will be one of the tracking items for the facility audit.)	Potomac Plant emissions on declining schedule to 1,475 tons by 2010. Mirant system-wide ozone season emissions are on a declining schedule to 5,200 tons by 2010.

Area	Actions to be Undertaken	City Role and Responsibility	Status
NOx reductions (continued)	Under the NOx consent decree, a maximum annual NOx cap is imposed on the system (comprising of four Mirant regional facilities).	T&ES and City consultants will track compliance with these caps. (This will be one of the tracking items for the facility audit.)	Mirant system-wide annual emissions are on a declining schedule to 16,000 tons by 2010.
	Under the NOx consent decree, a maximum ozone season NOX cap is imposed on the system (comprising of four Mirant regional facilities).	T&ES and City consultants will track compliance with these caps. (This will also be one of the tracking items for the facility audit.)	By 2008, Mirant system-wide is to be at an ozone season emissions rate of 0.15 lb/mmBTU.
3. Fine Particulates (including PM2.5 and PM10)	Under NOx consent decree, as a Supplement Environmental Project (SEP), Mirant is required to install bottom ash and fly ash silo secondary filtration system using secondary bag houses.	T&ES and City consultants will track progress on the installation of this equipment. (This will be one of the tracking items for the facility audit.)	Mirant is to submit plans for this equipment to DEQ within 90 days after the entry of the NOx consent decree. The NOx consent decree requires the installation of this equipment by September 2005.
	Under NOx consent decree, as a SEP, Mirant is required to install an upgrade to the ash loading equipment (pug mill style ash loader on 3 rd ash silo).	T&ES and City consultants will track progress on the installation of this equipment. (This will be one of the tracking items for the facility audit.)	Mirant is to submit plans for this equipment to DEQ within 90 days after the entry of the NOx consent decree. The NOx consent decree requires the installation of this equipment by June 2006.

Area	Actions to be Undertaken	City Role and Responsibility	Status
Fine Particulates (Continued)	Under NOx consent decree, as a SEP, Mirant is required to equip ash loading system with dust suppression system.	T&ES and City consultants will track progress on the installation of this equipment. (This will be one of the tracking items for the facility audit.)	Mirant is to submit plans for this equipment to DEQ within 90 days after the entry of the NOx consent decree. The NOx consent decree requires its installation no later than June 2005.
	Under the NOx consent decree, as a SEP, Mirant is required to install a truck washing facility.	T&ES and City consultants will track progress on the installation of this facility. (This will be one of the tracking items for the facility audit.)	Mirant is to submit plans for this facility to DEQ within 90 days after the entry of the NOx consent decree. The NOx consent decree requires its installation no later than June 2005.
4. Coarse Particulate (including particulates >PM10)	Under the NOx consent decree, as a SEP, Mirant is required to install a coal pile wind erosion and dust suppression system.	T&ES and City consultants will track progress on the installation of this system. (This will also be one of the tracking items for the facility audit.)	Mirant is to submit plans for this system to DEQ within 30 days after the entry of the NOx consent decree. The NOx consent decree requires its installation by April 2005.

Area	Actions to be Undertaken	City Role and Responsibility	Status
Coarse Particulate (Continued)	Under the NOx consent decree, as a SEP, Mirant is required to install a coal conveyor dust suppression system.	T&ES and City consultants will track progress on the installation of this system. (This will also be one of the tracking items for the facility audit.)	Mirant is to submit plans for this system to DEQ within 30 days after the entry of the NOx consent decree. The NOx consent decree requires this system to be installed by December 2004.
	Under the NOx consent decree, as a SEP, Mirant is to install a coal rail car unloading dust suppression system.	T&ES and City consultants will track progress on the installation of this system. (This will also be one of the tracking items for the facility audit.)	Mirant to submit plans for this system to DEQ within 90 days after the entry of the NOx consent decree The NOx consent decree requires this project to be completed by June 2006.
	Under the NOx consent decree, as a SEP, Mirant is required to conduct a settled dust study.	T&ES and City consultants will track progress on this study and evaluate its findings and results. (This will be one of the tracking items for the facility audit.)	Mirant to submit plans for this study to DEQ within 60 days after the entry of the NOx consent decree. The study is to begin no later than November 2004 and be completed within 6 months.

Area	Actions to be Undertaken	City Role and Responsibility	Status
<p>5. Downwash Study Consent Order</p>	<p>The Downwash Study consent order between DEQ and Mirant requires Mirant to prepare protocols that define, and to undertake, a refined modeling analysis to assess the effects of “down-wash” from the Potomac River plant on ambient concentrations of SO₂, NO₂, CO, and PM₁₀, and Mercury in Alexandria.</p> <p>VADEQ will undertake its own modeling analysis to assess the effects of “downwash” from the plant on ambient concentrations of other toxic pollutants, in Alexandria.</p>	<p>T&ES will ensure that the community is able to review on the protocols that Mirant has prepared for this study.</p> <p>T&ES and City consultants will review and comment on adequacy of the protocols. Based on this review, City may determine to undertake its own “downwash” modeling study.</p> <p>This is <u>not</u> specifically in the Downwash Study consent order, but, VADEQ staff has assured City of their plans to conduct this analysis independently.</p> <p>T&ES and City consultants will work with VADEQ on this analysis. Based on review of DEQ’s analysis, City may determine to undertake its own modeling analysis and study.</p>	<p>Mirant has forwarded proposed protocols to the DEQ and the City. They will be discussed with members of Mirant Community Monitoring Group. They also will be reviewed and commended upon by City consultants.</p> <p>All analysis to be performed will be coordinated with VADEQ.</p>

Area	Actions to be Undertaken	City Role and Responsibility	Status
Downwash Study (continued)	Under the Downwash Study consent order, Mirant is to propose and implement a correct action plan to address any exceedances of the applicable ambient air standards.	Staff and City consultants will monitor, evaluate and provide comments to DEQ when the action plan is proposed.	The Downwash Study consent order requires Mirant to submit the corrective action plan within 90 days of submitting the results of its modeling study.
6. Independent Facility Audit funded by Mirant	A memorandum of understanding between City and Mirant will be prepared regarding regular, periodic performance audits of Potomac River plant by an independent firm, to be funded by Mirant.	T&ES will work with Mirant to finalize MOU on scope, frequency, and other related issues related to audit.	Mirant has agreed to the concept of a regular plant audit. The exact scope of the audit is under discussion.
7. Virginia Legislation	City will support passage of the Virginia Clean Smoke Stacks bill during 2005 session of General Assembly.	Bernard Caton, T&ES and City Attorney's will provide input in the legislative process.	Continuation of last years effort.
8. Potential litigation Options	City will consider, when appropriate, pursuing litigation against the Potomac River plant under various statutory and common law theories.	City Attorney's Office and its consultants will evaluate the litigation options.	City Attorney Office currently working on this issue.
9. Representation in Bankruptcy Court	City will consider entering appearance in Mirant bankruptcy proceeding.	City Attorney's Office and its consultants will evaluate this issue.	City Attorney Office currently working on this issue

Area	Actions to be Undertaken	City Role and Responsibility	Status
9. Representation in Bankruptcy Court	City will consider entering appearance in Mirant bankruptcy proceeding.	City Attorney's Office and its consultants will evaluate this issue.	City Attorney Office currently working on this issue
10. New Federal Air Quality Regulatory Actions	Three federal air quality actions are underway: (1) PM2.5 area designations, (2) implementation of new 8 hour standard for ozone, and (3) New limits mercury emissions from power plants.	T&ES, City Attorney and City consultants will track these new federal regulations and their impacts on the City.	PM2.5 designations are to occur in November 2004. The region's deadline to achieve compliance with 8-hr Ozone and the PM2.5 standard in 2010. Mercury rules are likely to be promulgated by EPA in March 2005.
11. Purchase of Clean Power	City will consider options for purchase of clean or green power.	General Services and Purchasing will evaluate options.	General Services and Purchasing are working on this issue.

MIRANT COMMUNITY MONITORING GROUP	
Represented Group	Name and Title
City Council	Vice Mayor Redella S. Pepper
City Council	Councilman Paul C. Smedberg
Environmental Policy Commission	Samantha Ahdoot, Citizen Member
North Old Town Independent Citizens Association (NOTICE)	Roger Waud, President of NOTICE,
North East Citizens Association	Steve Troxel, Member
Marina Towers	Mary Harris, Member, Marina Tower Condo Association
Citizen member	Poul Hertel
Citizen member	Elizabeth Chimento

Staff:

Richard Baier, Director, T&ES
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NOTICE

19
10-26-04

North Old Town Independent Citizens Civic Association

October 26, 2004

Ref: 19. Consideration of City Position on (1) Proposed Amendments to the Operating Permit for the Mirant Potomac River Plant and (2) the Proposed Consent Decree that Addresses the Nox Emissions from the Potomac River Plant and Three Other Mirant Generating Facilities in the Washington D. C. Region.

Dear Mayor and Members of the Alexandria City Council:

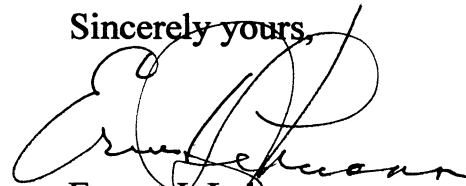
NOTICE offers the comments found on the attached sheet regarding Docket No. 19 for this evening's meeting. We hope this will assist you when you are considering this matter.

This information was adapted from the testimony that NOTICE's representative is to give at the October 28, 2004 hearing conducted by the Virginia State Department of Environmental Quality over the issuance of a new operating permit for the Mirant Potomac River Generating Station locate on 1400 N. Royal Street in Alexandria, VA.

This information includes, NOx emissions, Particulate matter, Mercury and Lead emissions, Opacity standards, Downwash modeling and proposed Zoning changes.

We deeply appreciate your concern in this vital matter.

Sincerely yours,



Ernest J. Lehmann
Treasurer

NOTICE Submission

to the Mayor and the Members of the City Council of
Alexandria, Virginia, October 26, 26, 2004

This submission includes NOTICe's position on NOx Emissions,
Particulate Matter, Mercury and Lead Emissions, Opacity Standards,
Down Wash Modeling and Zoning Changes

19. Consideration of City Position on (1) Proposed Amendments to the Operating Permit for the Mirant Potomac River Plant and (2) the Proposed Consent Decree that Addresses the Nox Emissions from the Potomac River Plant and Three Other Mirant Generating Facilities in the Washington D. C. Region.

This information is submitted the Mayor and the City Council of the City of Alexandria by the Board of Directors of the **North Old Town Independent Civic Association (NOTICe)**, a 501 c3 organization, in the City of Alexandria, Virginia. Our association represents the residents who live east of Washington Street to the Potomac River, from Oronoco Street in the south to Daingerfield Island in the north, within zip code 22314.

The neighborhood we encompass is part of historic Old Town Alexandria and is characterized by many historic buildings and sites, such as Robert E. Lee's boyhood home and the George Washington Memorial Parkway; public recreational facilities, such as the Mount Vernon Bike Trail and the Washington Sailing Marina; single and multi family urban residential housing for all income levels, both high rise and low rise; and, by a wide range of commercial and retail establishments, including major hotel chains, corporate offices, restaurants, small businesses and supermarkets. Within eyesight of our Nation's Capitol and its historic monuments, North Old Town is a vibrant urban residential area in one of the most historic towns in Virginia.

The Mirant Potomac River Generating Station, the subject of this hearing, is also in our neighborhood. We know it well. As a result of our community's concerns about the possible health effects and property damage of this plant's emissions, NOTICe formed an Air Quality Committee of experienced residents to monitor, inform and take action on matters affecting the community well being.

NOx Emissions

In this regard, we gave testimony at the Virginia Department of Environmental Quality (DEQ) on April 12, 2004 about the State Implementation Plan (SIP) concerning the Mirant Mid-Atlantic Potomac River Generating Station (PRGS) located in Alexandria Virginia. We think it is important to revisit some of this testimony. What we protested at the April 12th hearing is, unfortunately, still true. We stated,

“In fact, the Mirant Potomac River Station is the single largest point source of nitrogen oxides or NOx, the formative emission for ozone, in Northern Virginia. It is located inside the Beltway within the destination zone for most regional daily commuters. The location of this plant is at "ground zero" for low level ozone formation in our metropolitan region and other downwind regions. This makes its compliance with seasonal NOx limits crucial to the health of our residents and those throughout the ozone transport area, as well as the actual attainment of the national health standard. The regional exceedance of this health standard for ozone typically begins in early May, so time is of the essence in issuing this permit.

“NOTICE believes that NOx reductions at the Mirant plant must be immediate, real, local and enforceable. Specifically, the permit's seasonal NOx emission limit of 1019 tons should begin in force on May 1, 2004 and continue throughout the ozone season. This emission limit must be met by reducing actual emissions of nitrogen oxides at the Potomac River Generating Station without trading or offsets. And, compliance must be monitored and enforced by VA DEQ on a real-time daily basis by accessing data from the plant's continuous emission monitoring system (CEM) . “

Now we find that a new permit is being proposed, which rather than maintaining or reducing the NOx emission levels of 1019 tons during the ozone period, allows the PRGS to exceed this limit by 75% to 1750 tons this year.

In fact the DEQ and the EPA has offered the citizens of Alexandria the ultimate dose of irony. The Mirant company and its PRGS which have totally disregarded the citizens health and welfare are being rewarded with a much higher emissions limitation. See Appendix B of the Consent Decree. It is summarized below:

Appendix B – Allocated Emission Limitations...

Year	Plant	Tonnage Limits	
		Ozone Cap	Annual Cap
2003	PRGS	1019	unkn
2004	PRGS	1750	5050
2010	PRGS	1475	4425
Reduction in emissions is:		275 (-15.7%)	625 (-12.4%)

Now for the highest or largest polluter in the Mirant system in the metropolitan D.C. area, the Morgantown Plant (MRGTN). The following is planned:

Year	Plant	Tonnage Limits	
		Ozone Cap	Annual Cap
2004	MRGTN	6510	15,810
2010	MRGTN	825	2,845
Reduction in emissions is:		5685 (-87.3%)	12,965 (-82%)

This must be a bad joke! The smaller polluter is allowed to become the larger polluter and the larger polluter becomes the smaller polluter.

We must not forget that the limitation under which the PRGS operated prior to this consent decree was 1019 tons during the ozone period. Even in the best year, 6 long years from now in 2010 the PRGS will be allowed to produce 44.7% more NO_x than it was authorized to do in 2003. We do not view this as progress!

We have a good idea why this has happened. The PRGS is one of the oldest power plants in the United States of America, commissioned in 1949. It polluted when it was first fired up and it continues to do so now, even more so since the Mirant Corporation took over its operation. It should have been sent to power station heaven at least 20 years ago. The Mirant Corporation continues to “band-aid” it to keep it in operation.

Mirant is proud that their coal plant is the "cheapest" power in the region. There's a reason why that is so - they are allowed to emit higher levels of pollutants and operate round the clock because they are old and weren't expected to still be operating. This is a case where we should not respect our elders. Mirant no longer belongs in the shadow of the Washington Monument and the Capitol. It is time for them to move on and to make room for cleaner, healthier, modern power sources to serve this region.

Fine Particulate Matter (PM 2.5) and Primary Particulate Matter

This permit does not address fine particulate matter (PM 2.5) and primary particulate matter. Recent studies have shown that the PRGS is likely to be the single largest contributor to PM 2.5 in Alexandria. The correlation between particulate matter and low grade inflammation, coronary disease and asthma has been clearly established. There are tens of thousands of Alexandria citizens at risk because these pollutants are being emitted. It is NOTICe's position that this permit must include monitoring requirements as well as emission limits.

Mercury and Lead Emissions

PRGS emits over 70 pounds of mercury and over 400 pounds of lead (there are no "safe amounts" of neurotoxins) in addition to the 16,000 tons of sulfur dioxide and nearly 600 tons of particulates annually at its Mirant Potomac River Plant in Alexandria.

Based on Environmental Protection Agency (EPA) data on various mercury control technologies, The EPA report entitled, *Getting the Job Done*, assesses the costs of reducing mercury emissions from power plants in five states that generate from 40 percent to 95 percent of their electricity from coal and whose consumers would be likely to see increases in their electric bills due to the cost of mercury controls. The report examines coal-burning plants in Ohio, Pennsylvania, Illinois, Michigan, and North Dakota. These states rank high nationwide for their mercury emissions from coal-burning power plants. *Getting the Job Done* shows that coal-burning power plants can reduce mercury emissions by 90 percent, at a reasonable cost, regardless of the type of coal burned and the boiler configuration.

In a recently released report the National Wildlife Federation (NWF) also found:

* In Pennsylvania, there are 78 coal-fired boilers at 36 plants. Pennsylvania burns predominantly bituminous coal, and coal provides 56 percent of Pennsylvania's electricity. Achieving 90 percent mercury control at these plants would raise the monthly electricity bill for residents by approximately \$1.10 or 1.4 percent.

* In Ohio, there are 80 coal-fired boilers at 22 plants. Coal provides 90 percent of Ohio's electricity, and the state burns chiefly bituminous coal. Achieving 90 percent mercury control at these plants would raise the monthly electricity bill for residents by approximately \$2.14 or just under 3 percent. Both Pennsylvania and Ohio estimates include the cost of state-of-the-art sulfur dioxide control at certain plants.

NOTICE's position is that Mirant must be required to install the proper mercury and lead control technology.

Opacity Standards

Continuing emissions technology for measuring opacity have been available for at least 25 years. Installing this equipment is not a costly matter and will provide data for the furtive emissions that frequently occur at the PRGS. Under the present regime the emissions that occur after dark are impossible to monitor. This is unacceptable. NOTICE urges that this requirement be included in the Permit.

Down Wash Modeling

NOTICE recommends that we specify as many independent receptors (major building impacts, Alexandria House, Marina Towers, Washington Monument, Masonic Temple, Del Ray coffee House, etc.) as we are interested in within the grid that was proposed and outside it as well. The protocol should specifically address how the study is to treat downwash and property line issues as well as what and how they are considering other "major sources" (e.g. their other power plants, or Dominion's). The downwash study must also include a) fine particles PM2.5; b) Mercury; c) Lead; d) regional haze and e) NESHAPS (hazardous air pollutants). Most of these factors will have ambient standards set in the near term. Their emissions should be modeled in the long term to know the risk of

exceedance. This down wash study should conform to all of the applicable standards.

Zoning Changes in Regards to the PRGS

City Council adopted a resolution on June 22, 2004 initiating a Zoning Text Amendment that was referred to the Planning Commission to revoke the noncomplying use status of certain heavy industrial uses which have not obtained a special use permit as required by current law and categorize such uses as nonconforming uses, and requested that, in drafting the nonconforming use text, staff include a provision which would allow the installation of new or enhanced pollution control technologies and equipment, with the approval of City Council. The Planning Commission deferred consideration of this issue at its October meeting. We feel very strongly that action should be promptly taken to enact this Zoning Text Amendment.

Conclusion

This PRGS plant is old; it has short stacks and is not meeting the modern emission limits that all plants built after 1977 have to meet - they are woefully below standard and behind the times.

NOTICE does not agree to an operating permit that allows Mirant to exceed 1019 tons during the ozone season. We would have preferred that the state agree to have them close units 1 and 2 during the summer months as Mirant testified would be required to meet this limit last April. This would have had an immediate, dramatic and beneficial effect on the North Old Town community - and the surrounding communities in Southeastern DC and Prince Georges county.

In consideration of the information given above NOTICE urges that all of the recommendations made in this paper be included in this permit.

Submitted by the Board of NOTICE, Roger Waud, President,
501 Slaters Lane #1203, Alexandria, VA 22314, 703-838-7603
Ernest Lehmann, Treasurer, Jan Macidull, Secretary, SallyAnn Greer,
Ann Kaupp, Allen Benn