

**TENTATIVE AGENDA  
STATE AIR POLLUTION CONTROL BOARD MEETING**

**THURSDAY, MARCH 20, 2008**

**Holiday Inn Alexandria  
2460 Eisenhower Avenue  
Alexandria, Virginia**

**Convene – 10:00 A.M.**

**Tab**

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|--|---|
| <b>I. Mirant</b><br>Staff Presentation on 5-Stack and 2-Stack Permits<br>Public Comment Summary - 5-Stack and 2-Stack Permits<br>Public Comment on 5-Stack Permit per Policy Below<br>Staff Response to Public Comment<br>Board Discussion | 1-E: Draft 5-Stack Permit<br>1-F: Public Hearing Transcript<br>1-G: Mirant's Comments<br>1-H: City's Comments<br>1-I: Public Comments<br>1-J: Other Comments<br>1-Mc: Draft 2-Stack Permit<br>2-G: Public Hearing Transcript<br>2-H: Mirant's Comments<br>2-I: Mirant's Comments Cont'd.<br>2-J: City's Comments<br>2-K: City's Comments Cont'd.<br>2-L: Public Comments<br>3-B: Comment Summary – 5 Stack<br>3-C: Comment Summary – 2-Stack<br>3-D: Comparison of Emissions &<br>Air Quality Impacts for State<br>Operating Permit Options |
| <br><b>II. Update – Dominion Resources Virginia City Hybrid Energy Center</b>  |   |
| <br><b>III. Public Forum (no comment on items on agenda)</b>   |   |
| <br><b>IV. Other Business</b><br>Future Meetings   |   |

**Adjourn**

**NOTE:** The Board reserves the right to revise this agenda without notice unless prohibited by law. Revisions to the agenda include, but are not limited to, scheduling changes, additions or deletions. Questions arising as to the latest status of the agenda should be directed to Cindy M. Berndt at (804) 698-4378.

**PUBLIC COMMENTS AT STATE AIR POLLUTION CONTROL BOARD MEETINGS:** The Board encourages public participation in the performance of its duties and responsibilities. To this end, the Board has adopted public participation procedures for regulatory action and for case decisions. These procedures establish the times for the public to provide appropriate comment to the Board for their consideration.

For **REGULATORY ACTIONS (adoption, amendment or repeal of regulations)**, public participation is governed by the Administrative Process Act and the Board's Public Participation Guidelines. Public comment is accepted during the Notice of Intended Regulatory Action phase (minimum 30-day

comment period and one public meeting) and during the Notice of Public Comment Period on Proposed Regulatory Action (minimum 60-day comment period and one public hearing). Notice of these comment periods is announced in the Virginia Register and by mail to those on the Regulatory Development Mailing List. The comments received during the announced public comment periods are summarized for the Board and considered by the Board when making a decision on the regulatory action.

For **CASE DECISIONS (issuance and amendment of permits and consent special orders)**, the Board adopts public participation procedures in the individual regulations which establish the permit programs. As a general rule, public comment is accepted on a draft permit for a period of 30 days. If a public hearing is held, there is a 30-day comment period and one public hearing.

In light of these established procedures, the Board accepts public comment on regulatory actions, as well as general comments, at Board meetings in accordance with the following:

**REGULATORY ACTIONS:** Comments on regulatory actions are allowed only when the staff initially presents a regulatory action to the Board for **final** adoption. At that time, those persons who participated in the prior proceeding on the proposal (i.e., those who attended the public hearing or commented during the public comment period) are allowed up to 3 minutes to respond to the summary of the prior proceeding presented to the Board. Adoption of an emergency regulation is a final adoption for the purposes of this policy. Persons are allowed up to 3 minutes to address the Board on the emergency regulation under consideration.

**CASE DECISIONS:** Comments on pending case decisions at Board meetings are accepted only when the staff initially presents the pending case decision to the Board for final action. At that time the Board will allow up to 5 minutes for the applicant/owner to make his complete presentation on the pending decision, unless the applicant/owner objects to specific conditions of this permit. In that case, the applicant/owner will be allowed up to 15 minutes to make his complete presentation. The Board will then, in accordance with § 2.2-4021, allow others who participated in the prior proceeding (i.e., those who attended the public hearing or commented during the public comment period) up to 3 minutes to exercise their right to respond to the summary of the prior proceeding presented to the Board. No public comment is allowed on case decisions when a FORMAL HEARING is being held.

**Pooling Minutes:** Those persons who participated in the prior proceeding and attend the Board meeting may pool their minutes to allow for a single presentation to the Board that does not exceed the time limitation of 3 minutes times the number of persons pooling minutes or 15 minutes, whichever is less.

**NEW INFORMATION** will not be accepted at the meeting. The Board expects comments and information on a regulatory action or pending case decision to be submitted during the established public comment periods. However, the Board recognizes that in **rare** instances new information may become available after the close of the public comment period. To provide for consideration of and ensure the appropriate review of this new information, persons who participated during the prior public comment period **shall** submit the new information to the Department of Environmental Quality (Department) staff contact listed below at least 10 days prior to the Board meeting. The Board's decision will be based on the Department-developed official file and discussions at the Board meeting. For a regulatory action should the Board or Department decide that the new information was not reasonably available during the prior public comment period, is significant to the Board's decision and should be included in the official file, an additional public comment period may be announced by the Department in order for all interested persons to have an opportunity to participate.

**PUBLIC FORUM:** The Board schedules a public forum at each regular meeting to provide an opportunity for citizens to address the Board on matters other than pending regulatory actions or pending case decisions. Anyone wishing to speak to the Board during this time should indicate their desire on the sign-in cards/sheet and limit their presentation to not exceed 3 minutes.

**The Board reserves the right to alter the time limitations set forth in this policy without notice and to ensure comments presented at the meeting conform to this policy.**

Department of Environmental Quality Staff Contact: Cindy M. Berndt, Director, Regulatory Affairs, Department of Environmental Quality, 629 East Main Street, P.O. Box 1105, Richmond, Virginia 23218, phone (804) 698-4378; fax (804) 698-4346; e-mail: [cmberndt@deq.virginia.gov](mailto:cmberndt@deq.virginia.gov).

## Public Comments on the Mirant 5-Stack Draft Permit

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### 1. Congressman Moran —

- ▶ **NSR applicability** – Does not understand why DEQ accommodates the plant with the past history of violations, its efforts to deceive the public, its efforts to antagonize or intimidate State officials, especially since it does not even provide power to Virginians.

That DEQ only preformed a cursory review of three significant modifications of (1) use of Trona, (2) installation of low-NOx burners, and (3) the installation of separate over fired air did not trigger a new source review (NSR).

He says that he understands that EPA may have taken issue with the State's decision and that he has requested that the EPA determination be made public and that these concerns be made a part of this permit.

If the actions in “B” above do not merit review individually, then surely the cumulative impact should merit a NSR.

- ▶ **PM limitations** – Permit should include future anticipated compliance issues; (such as PM<sub>2.5</sub>) PRGS is single largest stationary source of PM<sub>2.5</sub>.

Permit uses PM10 standard for PM 2.5 which is not acceptable, and the permit must meet the PM 2.5 Ambient Air Quality Standards.

If electrical generation is allowed to increase, as this permit allows, then particulate matter emissions would similarly increase.

- ▶ **Increased operation** – This permit would allow for increased operation above that deemed safe while it was operating under the Federal Government under the emergency authority.

According to analysis performed by the City of Alexandria, this permit would allow Mirant to burn more coal resulting in particulate emissions above that allowed in 2005 and 2006. Any increase in emissions from this old plant in an urbanized area should be unacceptable.

- ▶ **Trona concerns** – High volumes of Trona usage merits serious concern.
- ▶ **Opacity vs. PM** – Can anyone credibly maintain that when particulate matter emissions decreases when opacity increases.
- ▶ **Trona concerns** – Mirant has not fully complied with the June 2006 EPA administrative order to complete a Trona NSR. State should learn more about Trona before sanctioning the use of Trona as an integral part of the plants long term control strategy.
- ▶ **Trona alternate concerns** – It is premature to allow the use of sodium bicarbonate as an alternative to Trona without a complete analysis of its effects.
- ▶ **Health concerns** – Concerned about how little is known to protect the public's health from harmful emissions.

### 2. Senator Patsy Ticer —

- ▶ **Health concerns** – Concerned with the harmful effects on human health of emissions from coal burning power plants. Expressed her concern for the health risk of fine particulate and stated that the report from EPA's National Center for National Assessment leaves no doubt that these emissions are harmful.

Mirant has failed to keep pace with what it should do for the public health and welfare under the current health and technological standards.

- ▶ **Emission limitations** – Requested a permit with strict emission limits that maintains air quality well into the future. She is asking for nothing more than Maryland requires of the Mirant plants and that Virginia demands of other plants through the State.

- ▶ **BACT** – Said that with increased generation comes the responsibility of Mirant for more and better pollution control technology.
  - ▶ **Easy data access** – The public should have easy access to all emission data from the plant; therefore, she is in favor of a local air pollution control district and committee.
3. Delegate David England —
- ▶ **PM limitations** – Permit needs limits on PM 2.5 and that Mirant PRGS is the most significant stationary source of air pollution in Virginia.
  - ▶ **Emission monitoring** – Asked for continuous monitors for PM 2.5.
  - ▶ **Trona Concerns** – Stated the need to analyze the effects of Trona on health. His concern is that if we don't know enough about Trona, so how we can issue a permit. If it is determined in 20 years that Trona causes cancer; what then? He requested that we wait to issue a permit until we know the effects of Trona
  - ▶ **BACT** – Requested that the best control technology available be required of Mirant. Stated that during the question and answer session that if this kicked over to a NSR requirement, there are a number of provisions that would be implemented that are not currently being implemented. Control devices that would provide the greatest level of public health should be required for the merged stack permit and should be included in this permit.
4. Mr. Paul Ferguson, Chairman of the Arlington County Board —
- ▶ **Health concerns** – Talked of the health effects of fine particulate and the need to require the use of continuous particulate monitors.
  - ▶ **BACT** – Stated that the antiquated technology (ESP) needs to be replaced with modern technology (baghouse) for fine particulate control.
  - ▶ **Trona concerns** – Concerned that more needs to be known about Trona.
  - ▶ **NSR applicability** – Doesn't understand why NSR has not been triggered as a result of the plant changes.
  - ▶ **Emission limitations** – Opposed to the merged stack which could result in extending emissions to Arlington County. Permit should include a comprehensive regional air quality analysis for any merged stack.
5. Mr. John Britton —
- Presented information from a report from Earth Tech on behalf of the city of Alexandria.
6. Mr. Bill Skrabak — (City submitted a 26 page written comment)
- ▶ **PM limitations** – Permit needs specific standards and modeling of PM 2.5. Stated that EPA no longer will accept PM 10 as a surrogate for PM 2.5. The permit must insure that the PM 2.5 NAAQS are met.
    - Emission rate for PM 2.5 to be the same as PM 10 which is way too high and must be changed.
    - Stated that the permit should be a part of the PM 2.5 regional SIP.
    - Permit should address all emissions such as ash handling and fugitive emissions.
    - He has issues with the stack testing and the fact that a reduction in particulate emissions was indicated. He asked how a decrease in particulate emissions could occur with an increase in opacity. Stated that the unit tested (unit 3) had the lowest opacity increase; and that if all five units had been tested, the increase in particulates would have been shown.
  - ▶ **SO<sub>2</sub> Concerns** – Stated that the SO<sub>2</sub> limits are much too high and the various operating scenarios allow for intermittent control. He believes that a single emission limit ( $\approx 0.3$  lb/MMBtu) at all times for all boilers is appropriate.

- ▶ **PM modeling** – Stated that “air mod” should be used to model the PM 2.5 emissions. DEQ should not wait for modeling guidelines from EPA and should go ahead and conduct the modeling. The city has conducted the modeling, and it shows the plant is exceeding the NAAQS. Other states have already begun modeling without waiting for the EPA guidance and that Virginia should also.
- ▶ **PM monitors** – Requested that particulate monitors be installed; and stated that in the written comments submitted by the city, they have given 10 examples of the use of particulate monitors.
- ▶ **Trona alternate concerns** – Requested additional testing and information on this as an alternate control method.
- ▶ **NSR applicability** – He does not understand why the use of Trona did not trigger NSR review.
- ▶ **Mercury limitations** – Stated that the permit needs to include Mercury and that the rates need to be much less than CAIR according to the past two years of operation.
- ▶ **Stack testing** – Stated that he believes there should be much more testing in the permit. He believes that all five units should be tested twice a year for the first two years and then possibly relaxing to the schedule in the draft permit.
- ▶ **Easy data access** – Stated that the public should have easy access to the results on all testing.
- ▶ **Trona concerns** – He believes that the Trona injection should be measured hourly and recorded for future emission comparisons.

7. William D. Euille, Mayor of the City of Alexandria —

- ▶ **BACT** – Stated the need for the strictest pollution control on particulate and the monitoring of these emissions. He stated that the controls should be operation at all times and at the maximum extent possible to reduce emissions.  
  
Does not understand why coal plants around the world can convert from coal, and there is still a run around from Mirant.
- ▶ **Easy data access** – Requested that all action of the board be fully transparent and have full disclosure. He also requested that the permit require that all monitoring data be available to the public in an easy to access manner.
- ▶ **Public comments** – He requested that prior to any stack merger, a full public review be undertaken.
- ▶ **Plant Operation** – He stated that the city will oppose any short-term stop-gap measures which serve only to expand plant operation to the detriment of the public.
- ▶ **Air pollution control district and committee** – He is in favor of the local air pollution control district and committee.

8. Ms. Dell Pepper, Vice Mayor of the City of Alexandria —

- ▶ **Easy data access** – She requested that the public have easy access to all pollutant information. She also supports the establishment of a local air pollution control district and committee.

9. Mr. Paul Smedberg, member of the Alexandria City Council —

- Permit Concerns** – Agrees that a draft permit has serious deficiencies with no specifics.
- ▶ **BACT** – Stated that Mirant has a legal obligation to retrofit other technologies that would benefit air quality. He referred specifically to the installation of baghouses for the control of PM<sub>2.5</sub>, which have increased with the use of Trona.
- ▶ **Easy data access** – Easy access to all data and the establishment of a local air pollution control district and committee. He offered Mr. Paylor a copy of the Virginia Code that allows the board to establish air pollution control districts.

10. Elizabeth Chimento —

- ▶ **PM limitations** – No provisions to model or measure PM<sub>2.5</sub> and that using PM10 as a surrogate for PM 2.5 is an inexact measuring tool. Also stated that the analysis shows that the PM 2.5 NAAQS is exceeded with this permit.
- ▶ **NSR applicability** – Stated that she had a complicated and misleading conversation with DEQ which indicated that an NSR review of the three major changes, but it was an internal document. She stated that there were not computations to support the conclusion that none of the changes would result in an NSR applicability review.

11. Jessica Miller —

- ▶ **Trona concerns** – Stated that the use of Trona raises the arsenic and selenium concentration levels in flyash.
- ▶ **Trona alternate concerns** – Suggested the co-firing biomass instead of using Trona. She talked to a brewery and they would like to provide their waste for burning.

12. Julia Corrado —

- ▶ **Trona concerns** – Noted the lack of safety data on the Trona to include the safe inhalation level and the chemical formula for Trona. She calculated 4,200 pounds of particulate a day. Requests correction if she is wrong. She also believes that exposing the public this amount of particulate in order to reduce SO<sub>2</sub> without health effects information for the Trona does not make since.
- ▶ **Health concerns** – Requested that an epidemiologic study be conducted.
- ▶ **Plant operation** – Mirant should be required to escrow money for potential future compensation to public.

13. Poul Hertel —

- ▶ **Health concerns** – Referred to Harvard six study and the American Cancer Society studies mentioned concerns of exposure to PM 2.5.
- ▶ **Modeling issues** – Mentioned the Arrow Engineering study and the confirmation of the effects of downwash.

14. Christa Watters —

- ▶ **Trona alternate concerns**– She stated that the safety and effectiveness of the dry sorbent injection has no scientific basis, but that the baghouses would be far more efficient technology.
- ▶ **Plant design limitations** – Stated that the stacks are from 75 to 100 feet shorter than comparable plants.
- ▶ **Emission concerns** – Stated that Mirant plants in Maryland are required to meet stricter standards than the PRGS is required to meet.

15. Joanne Broderick —

- ▶ **Emission concerns** – Stated that the coal pile emanates dust creating a health problem. She believes that the coal pile should be a deep pit and that coal should not be dumped at ground level.

She stated that she has seen clouds of noxious black emissions coming from the plant.

16. Sally Ann Greer —

- ▶ **BACT** – She said the plant needs to be shut down if a violation is reported by the City or a third party. She believes that this would force the expenditure necessary to clean up the plant.

17. Roger Waud —

- ▶ **PM limitations** – Asked why Mirant facilities in Maryland must comply with PM 2.5 standards and Virginia doesn't.
- ▶ **BACT** – Requested that Virginia require that baghouses be installed.

18. Richard M. Moose —

- ▶ **Emission Controls** – Requested modern emission controls be added to the plant.

19. Julie Chrenshaw Van Fleet —

- ▶ **Information request** – Asked how to change the regulations to make them work and who to go to get these changes.

20. Anna Pardos (Air Quality Chair of the Virginia Chapter of the Sierra Club —

- ▶ **PM limitations** – Opposed the permit which allows an increase in PM 2.5 emissions. She doesn't understand why the facility is not required to use cleaner energy since the facility is not needed for electrical reliability in the DC area.
- ▶ **PM modeling** – She stated that proper air modeling should be conducted and that the plant reduce their output to meet the NAAQS.
- ▶ **Emission concerns** – She stated that in the spring 2007 the PM 2.5 around the plant was well above the Northern Virginia average.

Should include Mirant PM 2.5 contribution in the proposed PM 2.5 SIP.

Permit should be consistent with CAIR. The limits in the draft permit are twice the CAIR limits and that this permit should be consistent now so that this does not have to be revisited at a later date.

- ▶ **Easy data access** – She believes that the public should have easy access to data.

21. Ernest Lehmann —

- ▶ **Control device** – Requested ESP parameters be monitored more often than once a day.

Suggested that data be recorded continuously and averaged on a six minute basis to coincide with the opacity readings for comparison.

- ▶ **Emission monitoring** – Stated that PM CEM's specifications were completed in 2004 and that there is no reason to study the issue any further.

22. Adam Ebbin — (Member of the House of Delegates for the 49<sup>th</sup> District)

- ▶ **PM limitations** – Wants emission limits on particulate matter (PM 2.5).
- ▶ **Trona concerns** – Stated the concern that not enough is known about Trona and should be studied to understand its effects.
- ▶ **BACT** – Wants the best pollution control and the best technology available.

23. Kate Watters —

- ▶ **BACT** – She wants best possible controls.

24. David Levy —

- ▶ **DEQ authority** – Believes that DEQ has the authority to implement regulations above the standards and that “hot spots” should be more stringent than the NAAQS since they are for the air quality in total.

He believes that it is illegal for a State to allow emissions higher than those already being met.

25. Stella Koch — Agrees with other comments and wants the permit to go away.

26. Katy Cannady —

- ▶ **PM limitations** – She wants PM 2.5 limits in the permit. She stated that the plant is emitting at a rate in excess of the NAAQS. She wants the inclusion of clean coal technology in the permit.

27. Judy Miller — (President of the League of Women voters in Alexandria)

▶ **Health concerns** – She is concerned with the health issues with letting the plant run.

28. Christe Susko —

▶ **BACT** – She wants the tightest possible controls.

29. Peter Labovitz —

▶ **Health concerns** – Health concerns

30. Jack Churchill —

▶ **Emission Controls - BACT**

31. Mary Harris —

▶ **PM limitations** – She wants PM 2.5 limits in the permit.

▶ **Emission concerns** – She Wants Mercury limits in the permit.

She wants CAIR and CAMR limits in the permit

▶ **BACT** – She wants best possible controls

32. Mira Wildes —

▶ **BACT** – Wants best possible controls.

33. Richard Ward —

▶ **Plant design limitations** – Concern about the height of the stacks and says this is not good.

34. Roger Diedrich

▶ **BACT** – Wants best possible controls

35. City of Alexandria Written Comments

▶ **Health Concerns from the EarthTech Report** – report submitted by the City of Alexandria as submittal comments to their written comments on the health effects of PM<sub>2.5</sub>

- NAAQS does not represent “0” risk, therefore, any increase in PM<sub>2.5</sub> could result in an increased health risk.
- EarthTech used the worst case operating scenario of their 119 possible operating scenarios. (2 base units operating at minimum load for 24 hours and 3 base units operating at minimum load for 24 hour)
- Used BenMAP in their analysis and used an emission rate of 0.062 lb/MMBtu and an 800 meter grid
- Cost of mortality within the grid is \$31 million for one year and the increased health cost related to the PRGS PM<sub>2.5</sub> increase would be an additional \$3 million
- The impacts for morality for exposure to modeled values of PM<sub>2.5</sub> by DOE would yield a risk of approximately 16 in one million.
- EarthTech stated that there several layers of uncertainty and are not meant to function as a definitive scientific assessment of the health impacts of the PRGS.

▶ **Written comments from the City** – in addition to the EarthTech report, the city submitted the following comments.

▶ **Emission Concerns** – PM<sub>2.5</sub> should be evaluated and NAAQS compliant limits set.

▶ **Emission Limits** – The City suggested the following emission limits:

- **SO<sub>2</sub>** - <0.30 lb/MMBtu
- **NO<sub>x</sub>** - <0.22 lb/MMBtu
- **PM** - <0.03 lb/MMBtu
- **PM<sub>10</sub>** - < 0.02 lb/MMBtu
- **PM<sub>2.5</sub>** - < 0.003 – 0.012 lb/MMBtu
- **CO** - < 0.20 lb/MMBtu
- **Hg** - < 37 lb/yr
- **Coal Sulfur** - < 0.9 wt%

Permit limits are arbitrary and unreasonable and should be reflect actual performance and operation at PRGS. Limits appear to be based on protection of the NAAQS is unreasonable and with disregard to the actual emissions achieved by the plant.

- ▶ **Emission Limits** – The City stated that the emission limits in the draft permit for PM<sub>2.5</sub> violate the provisions of Virginia Law. Modeling using the background of 34.1 µg/m<sup>3</sup> for the 24 hour modeling and 14.2 µg/m<sup>3</sup> for the annual modeling background (taken from the Aurora Hills ambient air monitoring station) virtually any contribution of the PRGS would show an exceedance of the NAAQS of 35 µg/m<sup>3</sup> and 15 µg/m<sup>3</sup>, respectively. Additionally, the City stated that as a part of the SIP development, that the “hot spot” issue must be addressed

The City requested specific emission limits for PM, PM<sub>10</sub>, and PM<sub>2.5</sub> that reflect actual ESP operation.

Baseline years should be Fall 2005 through Fall 2007, and the limits on the plant should not exceed those operations as estimated from the stack test to be 135 and 116 tons/year respectively (The City does not indicate for what pollutant these limits refer)

- ▶ **Control Device** – Suggested that baghouses be required on all five units.

The City does not believe that Trona should be a particulate control device.

- ▶ **Emission Monitoring** – Suggested that CEMS for CO and PM be required ASAP

- ▶ **NSR Applicability** – Stated that all NSR issues be resolved

- Past NSR violations for LNB, SOFA, and Trona installations
- Increase in maximum heat input
- Use of alternative sorbent other than Trona. Permit must not be used to pre-authorize sodium bicarbonate use
- Pre-construction permit is required prior to the stack merge

- ▶ **Permit Requirements** – The City provided the following permit conditions:

- Heat input rates must be enforceable
- Stack testing every 6-months for the first 2 years and then go to the draft permit language
- An emission limit that applies for all operating scenarios

- ▶ **Easy data access** – All plant data including monitoring and testing records must be made available to the public in a readily-acceptable manner without the need for a FOIA request

- ▶ **Permit Requirements** – Limits and compliance requirements of CAIR and CAMR should be in the permit.

In order for the permit to be “enforceable as a practical matter,” the following conditions must be in

the permit:

- A limit on production rates and raw material usage.
  - The City wants an explanation why the heat inputs are higher in the draft permit than they are in the June 1 permit.
  - The coal sulfur content in the draft permit is stated as a maximum of 1.2% and the average is 1.0%. This is higher than the existing 0.9% in the June 1 permit.
  - Pollution control efficiencies on all pollutants
  - In stack CEMS for SO<sub>2</sub>, NO<sub>x</sub>, PM, and CO.
  - A limit on the number of start-ups and shut-downs must be quantified and modeled and idling conditions must be included in emission calculations.
- **PM limitations** – The City stated that the use of PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub> is inadequate. Furthermore, the EPA policy guidance stating that the PM<sub>10</sub> as a surrogate approach does not bind the State and local governments and the public as a matter of law.
- The Clean Air Fine Implementation Rule became effective on April 25, 2007, and states that upon “promulgation of this final rule, the EPA will no longer accept the use of PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub> emission information given that both pollutants are regulated by a National Ambient Air Quality Standard and are therefore considered regulated pollutants”
- **Emission Modeling** – The City stated that the EPA has no plans to develop new dispersion models for estimating PM<sub>2.5</sub> impact and therefore the current AIRMOD and CALPUFF are the models that would be used by DEQ and that the modeling should not be delayed.
- **Compliance Determination** – The City stated that ambient monitoring alone is inadequate in determining NAAQS compliance at PRGS and is not a substitute for modeling
- **BACT** – The City suggest the following fugitive emission controls:
- Full enclosure under negative pressure for the ash unloading facility or a fully enclosed pneumatic system of ash handling
  - Reduce the footprint of the coal pile and limit the height to no more than the fence height
  - Particulate matter traps on the mobile source exhausts
  - Baghouses necessary on all five units
  - Request that Trona be used to the max to minimize emissions even during periods when higher emissions would meet the NAAQS
  - The permit should have a limit of 0.30 lb/MMBtu
  - Condition 21 should require the use of 0.05% sulfur oil
  - The PM limit for PM, PM<sub>10</sub>, and PM<sub>2.5</sub> being 0.055 lb/MMBtu is arbitrary and provides an unusually high margin of safety and may allow PRGS to increase emissions without regulatory review
- **Health Effects** – Believes that additional evaluation of the effects of Trona should be conducted. Because the Trona contains 2% silica the cancer concerns are high
- **Plant Operation** – The City stated that the emission limits are developed with the units in the scenario operating at full load for 24 hours. They say that this is an unreasonable operating condition since the units do not operate at full load for 24 hours. (that same thought process could be used in the modeling that EarthTech employed in modeling the facility with the units operating at minimum load for 24 hours)

- ▶ **Emission Limits** – The City stated that the short-term limits are set too high and the facility will quickly exceed the annual limits. The example the City gives is for CO and they use the CO spike and assumes the operation with this limit for 24 hours a day. The spike they used was a one minute number from the uncertified monitor.
- ▶ **PM Monitoring** – The City claimed that PM CEMS are in operation now and that they should be required ASAP, but in no case later than 6 months after the SOP issuance date.
- ▶ **CO Monitoring** – The City requested that the currently installed CO monitors be used immediately upon calibration, but in no case later than 3 months after the SOP issuance date.
- ▶ **Emission Testing** – The City takes issue with the use of the December 2006 stack testing being used to claim PM reductions since the testing was flawed. They also indicated that the efficiency of the cold side ESP was extremely low during the no-Trona test which biased the capture between the Trona conditions.

▶ **CITY ANSWER TO SEVEN QUESTIONS POSED BY THE BOARD**

1. Should Continuous Emission Monitoring Systems be required for all Particulate Matter regulated by the Regulations for the Control and Abatement of Air Pollution, and (1) does the Environmental Protection Agency (EPA) have an approved methodology for these systems, and (2) has the EPA certified an in-stack instrument for this purpose?
  - PM CEMS should be required on all boilers at PRGS as soon as possible. PM CEMS provide the most reliable data to demonstrate continuous compliance with the emission limits. As discussed previously in this letter. EPA has promulgated the relevant performance specifications and ongoing quality assurance procedures for PM CEMS. Based on these specifications, EPA-certified PM CEMS are currently in use at many facilities across the U. S.
2. Should the operating performance of the control equipment for sulfur dioxide (SO<sub>2</sub>) be the basis for permit limitations rather than the array of operating scenarios?
  - Virginia regulations require that emissions sources and the associated pollution control equipment must be operated in a manner so as to minimize emissions. 9 VAC 5-40-20.E. The SO<sub>2</sub> emission limits in the SOP must reflect the capability of the Trona system to reduce emissions, and these limits must apply at all times under all operating scenarios. Demonstration of compliance under an array of operating scenarios, each with its own emission limit, is cumbersome and not enforceable as a practical matter. Therefore, a single NAAQS-compliant lb/MMBtu emission limit must be specified for all operating scenarios. Should it be necessary for NAAQS compliance purposes to limit plant operations, such as a restriction on the number of boilers on the hours of operation, these limits must be specified in the separate condition independent of the lb/MMBtu emission limits.
3. Are the varying SO<sub>2</sub> control rates considered intermittent controls?
  - Virginia regulations define the varying of emission rates according to ambient concentrations as a prohibited dispersion technique. 9 VAC 5-12-20. The proposed SO<sub>2</sub> emission limits in the SOP are based on a comparison of predicted ambient concentrations with the NAAQS, such that a less restrictive emission limit is specified in cases where predicted ambient concentrations are lower. This method of establishing emission limits is an intermittent control because it does not account for the performance capability of the source and the associated pollution control measure, i.e., the Trona injection system. Instead, based on the capability of the Trona system, a single lb/MMBtu emission limit that is NAAQS compliant and that applies under all operating scenarios must be specified.
4. Should permit emission rates for SO<sub>2</sub> be established to ensure the use of Trona (or other sorbent

materials), and should the proposed minimum sulfur content requirement be eliminated?

- The SO<sub>2</sub> emission limits in the SOP must control the use of Trona up to the capability of this control measure. However, the SOP must not be used to pre-authorize the use of any sorbent other than Trona. Instead, because the use of another sorbent would represent a change in the method operation at PRGS, the facility must apply for and secure a pre-construction permit prior to its use. An analysis of NSR applicability must be conducted as a part of the permitting process.
- Alexandria does not see the benefit of specifying a minimum sulfur content of coal in the SOP, and believes there is no need for such a requirement. However, Alexandria is concerned that the SOP proposes to relax the limit on maximum sulfur content from the current 0.9% (per the SOP issued on June 1, 2007) up to a maximum of 1.2% and an average of 1.0%. Higher sulfur content will either lead to greater SO<sub>2</sub> emissions or greater use of Trona which will increase particulate matter emissions. Therefore, Alexandria requested that the sulfur content of coal should continue to be limited to the current level of 0.9%.

5. Should the Clean Air Interstate Rule and Clean Air Mercury Rule requirements be included in the permit?

- Virginia regulations stipulate that a permit must be reopened for cause if an additional regulatory requirement becomes applicable during the term of the permit or the permit must be revised to assure compliance with an applicable requirement. 9 VAC 5-80-1000. For a federal (Title V) operating permit, Virginia regulations require that a permit must be reopened for cause within 18 months of promulgation of an additional federal requirement if the permit term has at least three years remaining. 9 VAC 5-80-110.L. While the applicable CAIR and CAMR requirements can be addressed by reopening the permit in the future, such a reopening will require an advance notification to the source, and the same procedure as being followed now for the issuance of the SOP. However, because the CAIR and CAMR have already been promulgated and their requirements are already known, Alexandria does not see any reason to omit these requirements from the SOP. Instead of reopening the permit at a future date for this purpose, Alexandria prefers to include these rules in the SOP as applicable requirements with a future applicable date. Indeed, the facility's Title V operating permit would have to identify these as applicable requirements if that permit were to be issued at this time.

6. What changes should be made to the architecture of the permit and the emission limits in the proposed permit?

- As previously discussed, Alexandria recommends that the SOP should specify a single NAAQS-compliant lb/MMBtu emission limit for each pollutant that reflects the ability of the emission source and the associated pollution control measure, and that applies under all operating scenarios. Operational restrictions such as the number of boilers or the hours of operation, if necessary for NAAQS compliance, must be specified independently of the lb/MMBtu limits. The lb/hour, lb/day and tons/year limits must then be calculated by applying the lb/MMBtu limits to the operational restrictions to establish NAAQS-compliant mass emission limits.

7. What changes or additions should be made to the proposed parametric monitoring and (1) does such monitoring obviate the need for Particulate Matter Continuous Emissions Monitoring Systems and (2) what is the commercial availability of these instruments?

- Parametric monitoring is essential to ensure proper operation of the source and the associated pollution control measures. As described in this comment letter, Alexandria requests that additional parametric monitoring be required to include enforceable boiler heat input rates, coal firing rates, and Trona feed rates. Additionally, continuous ESP monitoring in the control room must be required.
- The parametric monitoring does not replace the need for continuous emissions monitoring via CEMS. Parametric monitoring is only an indicator of general emissions performance. The actual emissions data can only be verified via CEMS on a continuous basis. Alexandria requests that in addition to the SO<sub>2</sub> and NO<sub>x</sub> CEMS that PRGS currently operates, PM and CO CEMS should be required as soon as possible. The PM CEMS have been certified by U.S. EPA using promulgated procedures and specifications and are commercially available as indicated in this

comment letter along with vendor names and facilities currently using it across the U.S.

### Additional Public Written Comments Received

**36. Alice Bertele —**

- ▶ **Economics** – Concerned over the tax money being wasted by DEQ fighting the Alexandria City Council's problem.
- ▶ **Emission Concerns** – She has concerns over the air traffic pollution rather than the plant emissions.

**37. Antonio Bravo —**

- ▶ **Emission Controls** – He believes that Virginia should require the same modern controls as Maryland required of the other Mirant plants. He also believes that the practice of blowing the pollutants in to the air for dispersion is on responsible.

**38. Joanne Broderick —**

- ▶ **Emission Concerns** – Proposed emission limits are excessively high and do not protect the public health.
- ▶ **Emission Controls** – Emission controls should be optimized at all times.
- ▶ **Trona Health Concerns** – Trona health risk must be evaluated.
- ▶ **Increase Operation** – The current draft allows the plant to increase operation.
- ▶ **Response to Boards 7 questions**
  - 0) PM CEMS should be installed.
  - 1) Operating performance of the control equipment for SO<sub>2</sub> should be the basis of the permit limitations. Control equipment should be optimized at all times to minimize emissions.
  - 2) Yes, these varying controls are prohibited by state and federal regulations.
  - 3) Emissions of SO<sub>2</sub> should be established to require the optimal use of Trona at all times. Coal sulfur minimum is not necessary, but the maximum sulfur content should be greater than 0.9%.
  - 4) The CAIR and CAMR requirements should be in the permit.
  - 5) NOX and PM must be more stringent.
  - 6) Parametric monitoring is not adequate and the PM CEMS should be installed.

**39. Katy Cannady —**

- ▶ **Emission Concerns** – Permit allows PM<sub>2.5</sub> emissions from the plant in excess of the NAAQS. Since the Mirant plant is the largest single source of air pollution, cleaning up the plant is the most efficient to achieve cleaner air.
- ▶ **Emission Controls** – The plant needs to either reduce operation or add pollution control equipment to meet ambient air quality standards.
- ▶ **Fear of Increased Operation** – With this permit, the plant could increase production without the investment in clean coal technology.

**40. Elizabeth Chimanto —**

- ▶ **Emission Concerns** – Permit allows PM<sub>2.5</sub> emissions from the plant that exceed the NAAQS.
- ▶ **Emission Modeling** – Permit does not have PM<sub>2.5</sub> modeling to validate emissions. The use of PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub> is unacceptable.
- ▶ **Trona Health Concerns** – Plants small particulate emissions are a health concern.

- ▶ **Plant Design** – Short stacks exacerbate the emission problem with the short stacks.
  - ▶ **NSR Applicability Determination** – She believes that the NSR applicability needs to be determined for the three projects (Low NO<sub>x</sub> burners, SOFA, and Trona) and the determination made available to the public.
  - ▶ **Emission Limits** – Agrees with the City determination that the emission limits in the permit are too high.
41. Jacqueline Chimento —
- ▶ **Emission Concerns** – Permit allows PM<sub>2.5</sub> emissions from the plant that exceed the NAAQS.
  - ▶ **Emission Controls** – She is concerned that the permit allows its pollution controls to operate on a variable basis. Controls should be operated at full capacity at all times.
  - ▶ **Trona Health Concerns** – She is concerned that no health and states that DEQ must evaluate these concerns.
42. Dr. Julia Corrado — Her written comments echoed the comments she presented at the public comment meeting. ( Number 12 above)
43. Francesca Costantino —
- ▶ **Emission Controls** – She said the plant is the areas single largest polluter and uses “old dirty technology”. Virginia should require modern controls as are required by Maryland on the Mirant plants in Maryland. She is opposed to using blowers to dispense pollutants high in the air throughout the region.
  - ▶ **Plant Operations** – She wants the plant shut down.
44. Sandra Degler —
- ▶ **Emission Controls** – She wants modern controls or the plant shut down.
45. Authur Di Dio —
- ▶ **Emission Controls** – He Wants BACT.
46. Doug Domenech —
- ▶ **Emission Concerns** – Plant is the area’s number 1 polluter and no modifications should be allowed without emission reductions.
  - ▶ **Plant Operations** – He stated that the plant is too old and needs to be shut down.
47. Jim and Ellen Edmonston —
- ▶ **Health Concerns** – He has experienced coughing and sneezing since the plant started using Trona.
48. Paul Ferguson (Chair, Arlington County Board w/other county agencies) —
- ▶ **Emission Controls** – Requests BACT. Plant needs to install baghouse technology.
  - ▶ **Emission Limits** – Requested the most stringent emission limits for PM<sub>2.5</sub>.
  - ▶ **Emission Monitoring** – Requested that PM CEMS be installed.
  - ▶ **Trona Health Concerns** – More health effects studies must be conducted.
  - ▶ **Plant Design** – Opposed to the merge of the stacks to increase dispersion.
  - ▶ **NSR Applicability Determination** – The LNB, SOFA, and Trona need to be reviewed for NSR applicability determination.
49. Gerald Connolly (Chairman Fairfax Co. Board of Supervisors) —
- ▶ **Emission Limits** – Requested maximum PM<sub>2.5</sub> limits
50. Dr. William Roper (Director, Fairfax Co Dept of Environmental Services) —
- ▶ **Emission Modeling** – It is inadequate to use PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub>. With EPA guidance in the public comment phase, that should be used as other states have done.

- ▶ **Emission Controls** – Baghouse should be used for PM emission controls. Varying emission limits are intermittent and are not allowed. Trona is not a proven control for PM. All emission controls must be optimized at all times and include a percent reduction in the permit.
- ▶ **Emission Limits** – The permit has limits much higher than has been demonstrated and should not be as high as indicated in the permit. Trona must be optimized to allow no more than 0.30 lb/MMBtu SO<sub>2</sub>. Annual emissions should not exceed the baseline years (24 months prior).
- ▶ **Trona Health Concerns** – Have concerns with Trona without health effects study.
- ▶ **Emission Monitoring** – Continuous monitors for PM and CO must be required.
- ▶ **Plant Operation** – There must be an NSR review prior to stack merger.
- ▶ **Regulations** – CAIR and CAMR should be included in the permit.

51. Beverly Fourier —

- ▶ **Health Effects** – Ms. Fourier has chronic respiratory problems and claims that her problems have increased during the summers of 2006 and 2007.
- ▶ **Plant Operation** – She requested that the plant be shut down.

52. Dr. Sally Ann Greer —

- ▶ **Emission Controls** – Needs to control PM<sub>2.5</sub> to the maximum.

53. Andrea Grimaldi —

- ▶ **Emission Limits** – Stated that the emission limits for NO<sub>x</sub> and PM are too low.
- ▶ **Health Concerns** – Has general concerns for the health effects of living around the plant.
- ▶ **Easy Access to all data** – She requested easy access to all emission data from the plant.
- ▶ **Trona Health Effects** – She has concerns over the use of Trona without empirical data and studies.
- ▶ **Response to Boards 7 questions** –
  - 1) PM CEMS should be installed immediately.
  - 2) The operating performance of the SO<sub>2</sub> control system should be the basis for permit limitations for all operating scenarios.
  - 3) Against any permit that allows intermittent controls.
  - 4) SO<sub>2</sub> limit should be established by optimizing Trona usage. The minimum sulfur limit in coal is not needed; however, the sulfur limit should be 0.9%.
  - 5) The CAIR and CAMR limits should be in the permit.
  - 6) NO<sub>x</sub> and PM emission limits should be much more stringent to protect the NAAQS.
  - 7) The proposed parametric monitoring of the ESP's is insufficient and PM CEMS needs to be installed instead.

54. Andrea Groehn-Kick —

- ▶ **Health Concerns** – Concerned over the health effects from the plant.
- ▶ **Plant Operation** – Requested that the plant be shut down.

55. Nancy Hampton —

- ▶ **Emission Controls** – She requested that the plant be required to add modern control equipment and to cover the coal pile.

56. Poul Hertel —

- ▶ **Emission Concerns** – Wants stringent PM<sub>2.5</sub> limits which will protect the NAAQS.
- ▶ **Emission limits** – He provided, in his written comments, specific emission limits for all pollutants of concern.

Emission limits must be revised to reflect the actual performance and operations of the PRGS.

Annual emissions must not exceed the 2005 – 2007 baseline years (previous 24 months).

Limits and requirements of CAIR and CAMR must be included in the permit.

- ▶ **Emission Controls** – Baghouse control must be required.

Trona must be removed as a method of particulate control.

- ▶ **Emission Monitoring** – PM and CO CEMS must be required.

- ▶ **NSR Applicability** – Low NO<sub>x</sub> burners, SOFA, and Trona injection must be evaluated for NSR.

The increase in heat rate related to the June 1, 2007 permit must be resolved.

The permit must not pre-authorize the use of an alternate sorbent without a NSR review.

The proposed stack merger should require a permit and NSR review.

The permit must be practically enforceable and require adequate monitoring, record keeping and reporting to insure compliance. He listed several items to be included in the permit.

57. David Hunter —

- ▶ **Plant Operation** – He lives next to the plant and has several respiratory problems and has NO problems with the plant. He walks 4 to 5 times a week around the plant and does not notice any difference in the air around the plant and that of his townhouse. Feels that the plant reaches out to the community and is happy to have them as a neighbor.

58. Chris Idema and Lyndon Richardson —

- ▶ **Emission Controls** – They stated that their unit is covered with coal dust on a daily basis; and stated that on days when the wind is out of the north, the odor from the burning of coal is so bad they cannot go out or raise their windows.

- ▶ **Emission Monitoring** – They requested emission monitoring to confirm the compliance with the limits of the permit.

- ▶ **Emission Limits** – They requested the strictest emission limits possible.

59. Ann Kaupp —

- ▶ **Emission Controls** – She wants the plant to meet the emission standards of a new plant.

- ▶ **Emission Limits** – She wants PM<sub>2.5</sub> limits.

- ▶ **Trona Health Concerns** – She has concerns about the health effects of Trona.

60. Victoria Kennedy —

- ▶ **Plant Operation** – She wants the plant to shut down.

61. Lockhart Kukovich —

- ▶ **Plant Operation** – Wants the plant shut down.

62. JoAnn LaFon —

- ▶ **Health Concerns** – She wants BACT.

63. Ernest Lehmann —

- ▶ **Emission Limits** – He wants BACT.

Emissions must meet NAAQS.

He requested limits on PM<sub>2.5</sub>.

- ▶ **Emission Monitoring** – He requests that CEMS be required and installed immediately.

64. Patrice and Paul Lineman —

▶ **Plant Operation** – She wants the plant shut down.

65. Richard Moose —

▶ **Emission Controls** – Wants modern emission controls.

▶ **Emission Limits** – He believes the emission limits do not meet NAAQS.

Using PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub> is not appropriate.

66. Congressman Moran — ALL COMMENTS WERE INCORPORATED IN TRANSCRIPT

67. James H. Nobil, Jr. —

▶ **Emission Limits** – Stated that the proposed permit allows PM<sub>2.5</sub> exceedance of the NAAQS and should be set lower.

He states that PM<sub>10</sub> should not be used as a surrogate for PM<sub>2.5</sub>.

▶ **Emission Controls** – He stated that baghouse should be required.

He stated that the emission control technology at the plant are not being used to the fullest extent. The permit should require existing controls to control emissions better.

He wants particulate removal as a result of Trona usage to be verified.

**NSR Applicability** – He wants to know why DEQ has not conducted an NSR.

**Trona Health Concerns** – He has concerns for the health effects of Trona.

**Emission Monitoring** – Requestd that CEMS be required in the permit.

68. Kellie O'Connell —

▶ **Emission Controls** – She is concerned about the height of the coal pile and the fact that coal dust is coating the interior of her home.

▶ **Health Concerns** – She is concerned with the possible health effects of the coal dust.

69. Raymond O'Connor —

▶ **Plant Operation** – He is opposed to the SOP and believes it is not necessary.

70. Walter Stone (Mirant) —

▶ **Health Concerns** – He supplied additional information on the dry sorbent (Trona) and decisions of EPA and the FDA and their findings concerning the health effects of Trona.

71. Jack Sulser —

▶ **Health Concerns** – He lives about 7 miles from the plant and is concerned that the merged stack may dump the pollutants on him.

72. Senator Patsy Ticer — Same comments as presented in the transcript.

73. Dorothea Vafiadis —

▶ **Emission Concerns** – She is concerned with the health effects from the pollution from the plant.

▶ **Emission Controls** – She wants strict emission limits, and that DEQ insures that the limits are met.

74. Richard Ward —

▶ **Modeling** – Has several modeling concerns and ideas and suggestions.

75. Christa Watters —

▶ **Trona Health Concerns** – She stated concerns for the use of Trona as well as bicarbonate of soda.

► **Emission Controls** – Requested the use of baghouse.

Request BACT.

Requested the same stringent controls as are required by Maryland.

► **Emission Monitoring** – Request CEMS.

76. Kate Watters — Same comments as provided during the public comment hearing.

77. Roger Waud —

► **Emission Limits** – Using PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub> is not acceptable and that there should be a PM<sub>2.5</sub> limit in the permit.

► **Emission Controls** – Stated that a baghouse should be required.

Need to use the existing controls to the fullest.

► **NSR Applicability** – He does not understand why NSR has not been triggered with all the activities at the plant.

► **Trona Health Effects** – He is concerned that there is no scientific proof that Trona is safe.

► **Emission Monitoring** – Stated that the permit should include CEMS.

78. Rick Welch — He requested a system to warn citizens of days of high plant pollutants similar to the “Air Quality Alert” provided over the media.

79. Riverkeepers —

► **Emission Controls** – Requested that the permit require that the release of Trona into the environment be controlled.

Requested that an audible alarm sound in the control anytime the emissions exceed the permit limits.

They also requested that the permit require that the community be alerted upon excursions of the limits.

80. Sierra club — See comments of Anna Prados.

81. Southern Environmental Law Center —

► **Emission Limits** – The permit should incorporate the CAIR.

They contend that NSR is triggered by several projects, and an NSR review should be conducted.

**COMMENTS ON THE 5-STACK DRAFT PERMIT NOVEMBER 19, 2007 FROM PUBLIC HEARING AND CITY OF ALEXANDRIA WRITTEN SUBMITTAL**

<b>Number of comments</b>	<b>Description of comment</b>
5	NSR applicability review
9	PM <sub>2.5</sub> limitations
2	PM <sub>2.5</sub> modeling needed
3	Need for emission monitoring
1	Fear of increased operation
8	Trona health concerns
	PM <sub>2.5</sub> health concerns
8	General health concerns
4	Concerns with the use of an alternate to Trona

6	Request for emission limitations
12	Requesting BACT
5	Easy access to all data
2	Tighten SO <sub>2</sub> limits
1	Additional testing requirements
1	Testing in 2006 is not valid
2	Need for Mercury limits
4	Creation of an air control district and committee
2	Poor plant design (stack height issues)
1	Information request on how to get regulator relief and change
1	Control device monitoring
1	States that DEQ has the authority to have requirements exceed the regulatory limits.
1	Additional permit requirements needed
1	Method of compliance determination for SO <sub>2</sub>
2	Plant operation limitations used during modeling
1	Modeling concerns
1	Against permit

## Public Comments on the Mirant 2-Stack Draft Permit

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### 1. City of Alexandria Written Comments — Requested Board Action Items

- ▶ **NSR Violations and baseline emissions** – Stated at the Nov. 30 SAPCB meeting, the SAPCB directed VDEQ to issue synthetic minor emission limits and to establish emission limits that were NAAQS compliant.

The city stated that Mirant plans to add three ash handling facilities that this could possibly increase emissions and trigger NSR.

- ▶ **PM<sub>2.5</sub> dispersion modeling and NAAQS-compliant emission limits** - Stated at the Nov. 30 SAPCB meeting, the SAPCB directed VDEQ to conduct the PM<sub>2.5</sub> modeling including downwash and to assess the NAAQS compliance.
- ▶ **PM and CO CEMS** - Stated at the Nov. 30 SAPCB meeting, the SAPCB directed VDEQ to evaluate PM CEMS. They also stated that CO CEMS are already installed, and that they should be used to demonstrate compliance until the stack merge is completed. They also stated they have provided a list of PM CEMS installations and that there should not be a delay in the installation.
- ▶ **Do not pre-authorize alternate absorbents** – The permit should not pre-authorize the use of SBC without an NSR review and approval.
- ▶ **Deny dispersion credit for the stack merge** – They stated that because there is no pollution control project associated with the stack merge, the dispersion credits are not authorized.
- ▶ **Finalize the 5-stack SOP after addressing the City’s comments** – They stated that it is unfair for the City to have to comment on the 2-stack draft while VDEQ has yet to respond to the City’s comments on the 5-stack draft.

The board should direct VDEQ to finalize the 5-stack draft prior to any further consideration of the merged stack-SOP.

### 2. City of Alexandria — Public Hearing Presentation

- ▶ **2-stack permit is flawed** – City claims that the permit does not comply with the SAPCB mandate because it is neither a NSR pre-construction permit for the stack merge nor a synthetic minor permit to apply NAAQS emission standards for all pollutants.
- ▶ **NSR issues** – LNB, SOFA, and Trona NSR applicability must be resolved.
- ▶ **Heat input issue** – The increase in heat input as compared to rated capacities must be resolved.
- ▶ **Ash handling** – The city is concerned with ash handling de-bottlenecking.
- ▶ **Stack merge will increase emissions** – The city stated that the SAPCB determined that the stack merge would increase emissions.
- ▶ **PM<sub>2.5</sub> Emissions and impact must be addressed** – City has been requesting PM<sub>2.5</sub> modeling since 2004.

City sent SAPCB and DEQ a letter in January 2008 indicating that modeling must be conducted to establish proper emission limits.

Several states have used PM<sub>2.5</sub> modeling for several sources and to set NAAQS compliant emission limits.

Modeling of PM<sub>2.5</sub> can be conducted using AERMOD.

The state must address PM<sub>2.5</sub> and not use PM<sub>10</sub> as a surrogate. If the PM<sub>10</sub> were used, it should be compared to the PM<sub>10</sub> SILs.

City “demands” a NAAQS compliant PM<sub>2.5</sub> limit in any permit. “Alexandria is prepared to use all available options to resolve this most important health-related issue”

- ▶ **Baghouses are required for PM<sub>2.5</sub>** – Any use of dry sorbent requires the use of a baghouse to meet NAAQS.
- ▶ **Trona increases PM emissions** – The opacity increased during the Trona use and the frequency of episodes > 20% also increased with Trona. The City provided a graph in a later slide, but the parameters of the graph are blacked out.
- ▶ **Stack test results in December are questionable** – Cold side ESP efficiency for one of the runs was low.

- ▶ **Trona increases fugitive emissions** – City’s analysis showed significant increase in fugitive emissions with the use of Trona. (> 100%)

City requested a completely enclosed fly ash handling and transportation systems.

Mirant cannot take credit for fugitive control project required by a previous Consent Order.

- ▶ **Increased CO emissions with Trona use** – using data obtained during the December testing from the uncertified CO monitors, the City concluded an increase in CO emissions with Trona use.
- ▶ **Draft permit emission limits are too high, arbitrary, and allow for emission increases** – The permit does not include emission limits for PM<sub>2.5</sub> or mercury--this is a violation of Virginia regulations.

The increased sulfur limit of coal is backsliding.

The short term NO<sub>x</sub> limit does not reflect the performance of the LNB/SOFA.

Proposed short term (lb/hr) emission limits are greater than the June SOP and the draft 5-stack permit.

PM and PM<sub>10</sub> emissions are about twice as high as can be achieved with the ESP’s.

The PM and PM<sub>10</sub> limits are about three times as high as actual emissions reported for the past 24 months.

Draft SOP allows Mirant to increase CO emissions using future CEM data and is a circumvention of the regulations.

Opacity standard of 20% is based on antiquated standards and should be 10%.

The CAIR limits must be stated in the permit.

- ▶ **SO<sub>2</sub> emissions** – should be set at no greater than 0.3 lb/MMBtu at all times for all operating conditions.
- ▶ **Alternate sorbent pre-approval** – Complete testing and evaluation should be conducted prior to approval of alternate sorbent use.

Changing the sorbent should require NSR permit analysis.

The review of several published articles indicated that as much as 50% of SBC could be less than 12 microns in diameter. Comparing this to 20 – 25% in the current Trona, this could result in increased PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the stack.

Using SBC indicated that SO<sub>2</sub> can consistently achieve emissions below 0.2 lb/MMBtu. This would allow the plant to increase operation by 2.7 times, resulting in emission increases in pollutants and fly ash.

Short term SO<sub>2</sub> emissions should be adjusted according to the sorbent performance.

- ▶ **Proposed limits exceed the 24-month baseline (2005 – 2007).**
- ▶ **Reject 2-stack permit and adopt 5-stack draft** – The City provides conditions and limits for inclusion in the 5-stack permit.

- ▶ **Reference to the Virginia Paving NSR applicability vs. Mirant (Low NO<sub>x</sub> burner issue).**
- 3. City of Alexandria letter to SAPCB and David Paylor
  - ▶ The same issues are raised in the letter as were presented at the public hearing with some expounding of facts in the letter on some issues and references are given for many of the comments they raise. This letter raises several modeling points.  
Also included as attachments are three states guidance and policies for PM<sub>2.5</sub> and several examples of permits where these procedures were used.  
  
DEQ WILL ADDRESS THE ENTIRE PM<sub>2.5</sub> ISSUE AT A LATER DATE.
- 4. Tim Aiken for Congressman Moran
  - ▶ **NSR applicability determination** – Previous projects of low-NO<sub>x</sub> burner and SOFA installation and the initiation of the Trona injection should have a NSR applicability determination conducted.  
The stack merger along with the Trona injection should require a NSR applicability determination.  
DEQ should be required to publicly disclose the outcome of the NSR applicability determination.
  - ▶ **Emission limits** – Permit needs emission limits for PM<sub>2.5</sub> and mercury.  
Proposed permit will allow increases in CO by collecting data and developing emission limits using this data.
- 5. Vice Mayor Del Pepper
  - ▶ **Emission controls** – a baghouse should be required.
  - ▶ **Health concerns** – PM<sub>2.5</sub> health concerns from the plant
  - ▶ **Emission limits** – PM<sub>2.5</sub> emission limits must be placed in the permit.
  - ▶ **Emission monitoring** – PM<sub>2.5</sub> emissions must be monitored.
  - ▶ **Local air pollution district and committee** – She reiterated her desire for this.
- 6. Councilman Paul Smedburg
  - ▶ **NSR applicability** – Inadequate analysis and determination of baseline emission levels.
  - ▶ **Emission limits** – Draft provided unwarranted increases in the short-term SO<sub>2</sub> emission limit above the current SOP.  
Complete absence of any PM<sub>2.5</sub> emission limits.
  - ▶ **Emission controls** – Draft is lacking in adequate pollution control technology requirements.
  - ▶ **Emission monitoring** – Draft is lacking emission monitoring requirements.
  - ▶ **Local air pollution district and committee** – He reiterated his desire for this.
- 7. Stella Koch (reading comments of Chairman of Fairfax Board)
  - ▶ **Health concerns** – Concerned with fine particulate.
  - ▶ **Emission limits** – Requested the strictest fine particulate limits possible.
  - ▶ **Emission controls** – Requested BACT
- 8. Bill Skrabak - Comments from city presentation applied here.
- 9. John Britton

- ▶ Summarized the EarthTech health and social effect of the permit.
10. Mike Stumpf
- ▶ **Emission limits** –
    1. The use of Trona has shown SO<sub>2</sub> reduction of over 60%.
    2. Fine particulate matter has gone down with Trona use.
    3. NO<sub>x</sub> has consistently been protective of the NAAQS.
  - ▶ **Emission controls** –
    1. No modeling data to date indicated that a baghouse would provide greater performance and capture of particulate matter than the current configuration; in fact the modeling that the current configuration is equal to or better than a baghouse.
    2. Mirant is not opposed to installing baghouses; however, they do object to installing a technology that does not provide improvement over the performance over the existing installed technology.
    3. They recently met with a baghouse manufacturer, and the manufacturer would not guarantee performance equal to the current technology.
  - ▶ **Emission modeling** – According to their modeling, the stack merge will solve the downwash problem.
  - ▶ **Plant design** – The stack merge will accomplish the same results as other plants, not constrained with a stack height limitation, received with a taller stack.
11. Victoria Gross
- ▶ Mirant employee for 25 years and resident of Alexandria for 37 years, she believes the 2-stack permit is the best solution for the region.
12. Dexter Hansford
- ▶ He tells of an incident of a resident coming to the plant to complain about the SO<sub>2</sub> odor. He informed the resident that the plant was not operating, and the odor was coming from the sewage treatment plant across the Potomac River. He fears that this is the type of information that is being put out to the public, and that the correct information is not being distributed to the public.
13. Ernest Lehman
- ▶ **Health concerns** – Talked about large numbers of people in different age groups with health problems due to the plant.
14. Julie Crenshaw Van Fleet
- ▶ **Stack merge concerns** – She is concerned that if the stack merge is approved, the pollutants will increase emission outside the immediate area around the PRGS site.
  - ▶ **Trona health concerns** – She is concerned about the health effects of Trona.
  - ▶ **Emission monitoring** – She understands that the ambient monitors around the plant are not EPA compliant systems then how can a permit be issued without valid data.
15. Christa Watters

- ▶ **Emission limits** – She does not believe that the draft permit meets the NAAQS. Requested the most stringent emission limits possible.  
She believes that there should be a PM<sub>2.5</sub> standard, and that PM<sub>10</sub> should not be used as a surrogate.
- ▶ **Emission monitoring** – She stated that there are monitoring (...CEMS?) available, and they should be used.
- ▶ **Health effects** – She is concerned with the health effects of the PM<sub>2.5</sub> emissions.  
She noted strong SO<sub>2</sub> odor during low-pressure periods.
- ▶ **Emission controls** – She agreed with the city and wants BACT.
- ▶ She stated that the fabric around the coal pile fencing is torn and has been since November without any repair.

16. Elizabeth Chimento

- ▶ **NSR applicability** – She wanted the applicability determination ordered by the SAPCB on November 30, 2007, which is not in the draft.  
She claimed that the SAPCB also told DEQ to ask for public comment on the PM emission and DEQ did not do this.
- ▶ **Emission limits** – She stated that the use of PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub> is not legal since the EPA guidance memo, which was the basis of this interpretation, was not offered for public comment and is therefore unlawful.  
This draft permit ignores the SAPCB direction.  
The draft permit does not include emission limits for mercury and PM<sub>2.5</sub>.
- ▶ **Emission controls** – She stated that only a baghouse can control small particulates and that the ESP's are incapable of controlling PM<sub>2.5</sub>.

17. Arthur Rundol

- ▶ He is in favor of the permit and relates other (transportation related emissions) as the real problem in the area.

18. Chip Drury

- ▶ He is in favor of the permit and relates other (transportation related emissions) as the real problem in the area.

19. Ronald Kirby

- ▶ He is in favor of the permit and relates other (transportation related emissions) as the real problem in the area.

20. Ralph Hunt

- ▶ He is in favor of the permit and relates other (transportation related emissions) as the real problem in the area.

21. Gwen Cook

- ▶ She is in favor of the permit and the stack merger.

22. William White

- ▶ He is in favor of the permit, has worked in power plants for 30 years, and does not have any adverse health effects or lung deficiencies.
23. James Taylor
- ▶ In favor of the plant merger and draft permit.
24. Richard Effler
- ▶ He is tired of hearing the gloom and doom presented by many of the citizens. He requested that the Board take a realistic approach in the permit that is issued.
25. Christopher Doucette
- ▶ He is tired of the bickering and delay. He believes that the plant is willing to do the correct thing, and he urged the Board to settle this and bring it to an end.
26. Roger Waud
- ▶ **Health effects** – He believes that the health effect cost projected by the DOE should be borne by the plant.
  - ▶ **Emission controls** – He wants baghouse controls.
27. Debra Johnson – She wants the Board to do what the City has proposed.
- ▶ **Health concerns** – She is concerned with the possibility that lung problems can be caused by the plant.
  - ▶ **Emission controls** – She wants baghouse controls.
  - ▶ **Emission monitoring** – She wants particulate CEMS to be installed.
  - ▶ **Enforcement** – She wants something in the permit to specify the fines for polluting.
28. Beverly Fourier
- ▶ **Trona health concerns** – She has read the MSDS for Trona and is concerned with the possible side effects of repeated exposure. She has chronic lung problems and has now started getting rashes on her arms.
29. Ana Prados
- ▶ **Emission limits** – She is concerned that there is no emission limits for PM<sub>2.5</sub> in the permit. She is concerned that there is an increase in the short term SO<sub>2</sub> emission limits in the draft permit.  
She wants the plant to reduce mercury emissions.  
She wants the NO<sub>x</sub> limits of CAIR to be incorporated in the permit.
  - ▶ **Emission controls** – She is in favor of baghouse controls.
  - ▶ **Health concerns** – She is concerned with the health effects of PM<sub>2.5</sub>.
  - ▶ **Emission modeling** – The city has modeled PM<sub>2.5</sub> for several years and has shown problems.
  - ▶ **Emission monitoring** – The monitor at Marina Towers has shown exceedance of the 24-hour NAAQS.
30. Bahri Aliriza – Wanted the plant to try his company's product to reduce emissions.
31. Paul Hertel
- ▶ **Emission limits** – He believes that the emission limits in the current draft permit are not stringent enough to protect human health and the NAAQS.
  - ▶ **Emission controls** – He is in favor of the installation of baghouse control.

Other states have implemented efforts to control PM<sub>2.5</sub>, Virginia should also implement these controls.

- ▶ **Health concerns** – He is concerned with the health concerns from both the SO<sub>2</sub> and the PM<sub>2.5</sub>.
32. Cindy Patterson
- ▶ **Emission controls** – She wants the plant to install up-to-date pollution control equipment.
33. Susan Brown
- ▶ **Health concerns**
34. Jessica Miller
- ▶ Not sure what her point is.
35. Katy Cannady
- ▶ **Health concerns** – She has concerns with PM<sub>2.5</sub>.
  - ▶ **Emission limits** – She states that other states have incorporated PM<sub>2.5</sub> in their regulations, why not Virginia.
36. Mary Harris
- ▶ **Emission controls** – She requested BACT.
37. Judy Miller
- ▶ Request that the Board protect the citizen's interest.
38. Vince Petirini – He is in favor of the permit.

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### WRITTEN COMMENTS SUBMITTED

39. Emma Anderson – She is for the stack merge and is tired of the City wasting tax money.
40. Addie Authur – For the stack merger and permit and is tired of the City wasting tax money.
41. Kevin Barnes - For the stack merger and permit and is tired of the City wasting tax money.
42. Annetta Beatty - For the stack merger and permit and is tired of the City wasting tax money.
43. Cilia Booth - For the stack merger and permit and is tired of the City wasting tax money.
44. Clyde Browand - For the stack merger and permit.
45. Carl Burtoff - For the stack merger and permit and is tired of the City wasting tax money.
46. Martha Burtoff - For the stack merger and permit and is tired of the City wasting tax money.
47. Mary Carrol - For the stack merger and permit.
48. Paul Chenevert - For the stack merger and permit and is tired of the City wasting tax money.
49. Marius Christiansen - For the stack merger and permit.
50. Elizbeth Chimento – Same comments from her presentation to the SAPCB and her written comments submitted at that time.
51. Kathleen Clarke - For the stack merger and permit and is tired of the City wasting tax money.
52. Jeannette Custidio - For the stack merger and permit and is tired of the City wasting tax money.
53. James Day - For the stack merger and permit and is tired of the City wasting tax money.
54. Peter Dixon - For the stack merger and permit and is tired of the City wasting tax money.

55. Doyle Jamison - For the stack merger and permit and is tired of the City wasting tax money.
56. John Drury - For the stack merger and permit.
57. .Louis Drury - For the stack merger and permit.
58. Katherine Duncan - For the stack merger and permit and is tired of the City wasting tax money.
59. Michelle Dynak - For the stack merger and permit and is tired of the City wasting tax money.
60. Richard Effler - For the stack merger and permit.
61. John Eller - For the stack merger and permit.
62. Joe Emerson - For the stack merger and permit and is tired of the City wasting tax money.
63. Andrea Groehn-Kick – Health concerns.
64. Churchill Gibson - For the stack merger and permit and is tired of the City wasting tax money.
65. Jena Gilka - For the stack merger and permit and is tired of the City wasting tax money.
66. Paul Greiner - For the stack merger and permit.
67. George Grieve - For the stack merger and permit.
68. Margaret Grieve - For the stack merger and permit.
69. Victoria Gross – Same comments from her presentation to the SAPCB and her written comments submitted at that time.
70. Edward Hallett - For the stack merger and permit.
71. Marianne Hallett - For the stack merger and permit.
72. Margaret Harris - For the stack merger and permit and is tired of the City wasting tax money.
73. Gerry Hendricks - For the stack merger and permit.
74. Frederick Hewitt - For the stack merger and permit and is tired of the City wasting tax money.
75. Larieta Habbitts - For the stack merger and permit and is tired of the City wasting tax money.
76. Tiana Hickman - For the stack merger and permit and is tired of the City wasting tax money.
77. Fay Holl - For the stack merger and permit and is tired of the City wasting tax money.
78. Mary Honse - For the stack merger and permit.
79. Brad Hurst - For the stack merger and permit and is tired of the City wasting tax money.
80. Martha Jarvis - For the stack merger and permit and is tired of the City wasting tax money.
81. Arnette Jones - For the stack merger and permit and is tired of the City wasting tax money.
82. John Kearney - For the stack merger and permit.
83. Janet Kerns - For the stack merger and permit and is tired of the City wasting tax money.
84. Ronald Kirby - For the stack merger and permit and is tired of the City wasting tax money.
85. John Landers - For the stack merger and permit.
86. George Larson - For the stack merger and permit and is tired of the City wasting tax money.
87. Patrick Lazere - For the stack merger and permit and is tired of the City wasting tax money.
88. Alan Lee - For the stack merger and permit and is tired of the City wasting tax money.
89. Alvin Lee - For the stack merger and permit.
90. Mary Martz - For the stack merger and permit.

91. Douglas Matthews - For the stack merger and permit and is tired of the City wasting tax money.
92. James McComb - For the stack merger and permit and is tired of the City wasting tax money.
93. Martin Miller - For the stack merger and permit and is tired of the City wasting tax money.
94. Marvin Murray - For the stack merger and permit and is tired of the City wasting tax money.
95. Mary Niklewski - For the stack merger and permit and is tired of the City wasting tax money.
96. Martin Niklewski - For the stack merger and permit and is tired of the City wasting tax money.
97. Thomas Nesbit - For the stack merger and permit and is tired of the City wasting tax money.
98. Connie Paradise –
  - ▶ **Emission limits** – States that limits in the permit do not meet NAAQS for PM<sub>2.5</sub> and Mercury
  - ▶ **Emission controls** – Baghouse technology is the only technology to insure NAAQS compliance.
99. Margot Paz - For the stack merger and permit and is tired of the City wasting tax money.
100. Willie Petruy - For the stack merger and permit and is tired of the City wasting tax money.
101. John Powell - For the stack merger and permit and is tired of the City wasting tax money.
102. Kenneth Pribyla - For the stack merger and permit and is tired of the City wasting tax money.
103. Mohammad Rahman - For the stack merger and permit and is tired of the City wasting tax money.
104. Michael Rehawaldt – For the stack merger and permit and is tired of the City wasting tax money.
105. Daria Rehwaldt - For the stack merger and permit and is tired of the City wasting tax money.
106. Michael Rehwaldt - For the stack merger and permit and is tired of the City wasting tax money.
107. Andy Repasy - For the stack merger and permit and is tired of the City wasting tax money.
108. Katherine Repasy - For the stack merger and permit.
109. Michael Riordan - For the stack merger and permit and is tired of the City wasting tax money.
110. George Sawyer - For the stack merger and permit and is tired of the City wasting tax money.
111. Elizabeth Simmons - For the stack merger and permit and is tired of the City wasting tax money.
112. Jeffery Suttell - For the stack merger and permit and is tired of the City wasting tax money.
113. Dayeenah Tareyah For the stack merger and permit and is tired of the City wasting tax money.
114. Donald Tasker - For the stack merger and permit and is tired of the City wasting tax money.
115. James Taylor - For the stack merger and permit and is tired of the City wasting tax money.
116. Stephen Toth - For the stack merger and permit and is tired of the City wasting tax money.
117. Ken Ullman - For the stack merger and permit and is tired of the City wasting tax money.
118. Jeffery Vorberger - For the stack merger and permit and is tired of the City wasting tax money.
119. James Weber - For the stack merger and permit and is tired of the City wasting tax money.
120. Elena Zaytseva - For the stack merger and permit and is tired of the City wasting tax money.
121. James Nobil –
  - ▶ **Health concerns** – PM<sub>2.5</sub>
122. Patrica Cilfone –
  - ▶ **Health concerns** – PM<sub>2.5</sub>
123. Jim Butler –
  - ▶ **Health concerns** – General
124. A. Blakeman Early
  - ▶ **Health concerns** – PM<sub>2.5</sub>
  - ▶ **Emission monitoring** – Ambient SO<sub>2</sub> monitoring

**SUMMARY TO THE JANUARY 25, 2008 PUBLIC FOR  
THE 2-STACK DRAFT PERMIT**

No.	Comment category
1	5-stack permit should be finalized prior to 2-consideration
1	Concern of ash handling de-bottlenecking
2	Emission controls – BACT
1	Emission controls - Baghouse is no better than the current particulate control configuration
1	Emission controls - December 2007 SBC test - cold ESP had low capture for one run
11	Emission controls – In favor of baghouse or most up-to-date controls.
1	Emission limits – CAIR limits should be in the permit.
1	Emission limits – City stated that SAPCB determined an increase in emissions due to stack merge
1	Emission limits – Fear that merged stack will increase emissions in surrounding areas.
1	Emission limits - Fine particulate matter has reduced with Trona
1	Emission limits – Increase in the short term SO <sub>2</sub> limits
1	Emission limits - Increase PM emissions with Trona use
1	Emission limits – Short term NO <sub>x</sub> emissions are too high based on actual emissions
2	Emission limits – Short term SO <sub>2</sub> limits exceeds the June 1 permit and the 5-stack draft
1	Emission limits - Increased CO emissions with Trona use
3	Emission limits – Mercury
2	Emission limits – Most stringent possible.
1	Emission limits - NO <sub>x</sub> has consistently met the NAAQS
2	Emission limits - Permit emissions are too high, arbitrary, and allow increases
9	Emission limits - PM <sub>2.5</sub> emission limit
1	Emission limits - SO <sub>2</sub> emissions should be no higher that 0.3 lb/MMBtu
1	Emission limits - Trona has reduced SO <sub>2</sub> emission by over 60%
1	Emission modeling – City modeling indicates problems
1	Emission modeling - Dispersion credit not allowed w/o associated control project
1	Emission modeling – modeling shows merge stack will solve downwash problem
1	Emission modeling - PM <sub>2.5</sub> modeling needed
1	Emission monitoring – Ambient monitors are not EPA compliant and therefore should not be used in permit development.
5	Emission monitoring - CEMS installation
1	Emission monitoring – City monitoring has shown exceedance of the 24-hour NAAQS.
1	Emission monitoring – Need additional SO <sub>2</sub> ambient monitoring
1	Enforcement – Permit should include a fines schedule
1	Financial evaluation - Health and social cost
1	Fugitive emissions - Increased fugitive emissions with Trona use
1	Health concerns – Cost should be borne by the plant
5	Health concerns – General
9	Health concerns - PM <sub>2.5</sub>
1	Health concerns – Trona
2	Local air quality control district and committee
4	NSR issues (LNB, SOFA, and Trona)
586*	Permit comments – In favor of the permit
1	Plant operation and design - Heat input inconsistency.
2	Plant operation and design – Merged stacks will accomplish the same thing as other plants which do not have stack height limitations and should be the proper answer.

1	SBC issues
1	Stack merge - Draft 2-stack permit does not meet SAPCB direction (NSR or SM)

\* Many of these comments were in the form of preprinted postcards developed by the “Bright Ideas Alexandria” group.