ATTACHMENT F

City's Presentations to the SAPCB on May 22, 2007 and September 13, 2007

State Air Pollution Control Board

May 22, 2007

Presented By

City of Alexandria

Interactions between Mirant and Alexandria Since April 10, 2007

- City contacted Mirant and proposed further negotiations in the presence of an independent facilitator
  - Meeting between Mirant, Alexandria and VDEQ took place at VDEQ-NVRO on May 10
  - All parties operating under a confidentiality agreement
- A subsequent short meeting was held at the City Hall on May 17
  - Two parties did not come to any agreement

SAPCB Permit Option 1

- Option 1 permit is supportable because it does not allow predictive modeling and/or ambient monitoring to be used for intermittent control
- However, it only addresses SO_2 emissions and therefore should only be a short term option
- If it is selected, all pollution control measures should be required to operate in a manner that minimize emissions at all times
- The modeling analysis supporting this option and corresponding SO_2 emission limits, must be updated using standard modeling guidelines

SAPCB Permit Options 2 and 3

- Permit options 2 & 3 are supportable as interim permits with the following exceptions and/or concerns:
  - The use of predictive modeling prohibited by law in these options should be removed
  - The use of ambient monitoring to vary emissions is prohibited by law and should likewise be removed
  - City supports emission limits format specified under these options
    - However, more stringent emission limits are required to show SO_2 NAAQS compliance

Are intermittent controls allowed as part of the permit and if not, are they allowed during a phase-in period or in a consent order?

- Intermittent controls are a prohibited dispersion technique under federal and state regulations
  - 40 CFR 51.100(nn), 40 CFR 51.100(hh)(1)(ii) and 9 VAC 5-10-20
- These are prohibited regardless of whether a source is operating under a phase-in permit, a long term permit or a consent order
- City strongly objects to any permit or consent order that allows Mirant PRGS to use intermittent controls to show compliance with NAAQS

Is the proposed stack-merge project prohibited under federal or state law as a prohibited dispersion technique?

- The stack merger as proposed by Mirant, is a prohibited dispersion technique under federal and state regulations
  - 40 CFR 51.100 (hh)(1)(iii) and 9 VAC 5-10-20
  - City is against Mirant taking dispersion credits which would result in increased net emissions from PRGS
- City strongly believes that trona has never been an integral part of stack merge project
  - As such, Mirant cannot claim dispersion credit for stack merge

Comprehensive State Operating Permit is the Ultimate Goal

- Comprehensive SOP should include the following:
  - Requirements to comply with all NAAQS including $PM_{2.5}$
    - Recent Mirant opacity data showed increase in opacity with trona injection, and potentially $PM_{2.5}$ emissions (~20,000 data points for each boiler)

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Comprehensive State Operating Permit is the Ultimate Goal

- Comprehensive SOP should include the following (continued):
  - CO emissions evaluation – Mirant data for stack testing in 2006 showed exceedingly high CO levels
  - CO/PM Continuous Emissions Monitoring Systems
  - Use of approved guideline modeling methodology for establishing emissions limits
  - SAAC compliance (HCl, HF)
  - Stack merger dispersion credits should be disallowed

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Comprehensive State Operating Permit is the Ultimate Goal

- Comprehensive SOP should include the following (continued):
  - NSR/PSD applicability should be carried out
  - Last but not least, health effects of trona should be fully evaluated
    - Section E – Permitting Requirements, of the EPA Administrative Compliance Order (ACO, page 15), "Mirant further agrees that during the implementation of this Order, it will prepare and submit to the EPA and VDEQ an analysis of the applicability of NSR/PSD to the PRGS due to the installation of trona injection and any additional fugitive emissions resulting from that installation".

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Summary of City's Comments

- The City supports the issuance of a permit over that of a consent order
- The interim permit should take effect no later than July 1, 2007 and must be for a short duration
- The SAPCB permit options (Option 1,2 and 3) are supportable as interim permits upon resolution of City's concerns expressed earlier

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Summary of City's Comments

- A comprehensive SOP should be issued as soon as possible that limits emissions of all criteria and toxic air pollutants
  - SOP should be protective of all NAAQS including $PM_{2.5}$ and SAAC under all weather conditions
- Intermittent controls based on predictive modeling and ambient monitoring should be prohibited
  - They should not be allowed in any permit or consent order

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Summary of City's Comments

- The stack merger as proposed by Mirant is a prohibited dispersion technique under State and Federal regulations
- Fugitive emissions from the plant have to be further tightened up
  - City has just completed another settled dust study which again confirms the significant fugitive emissions from PRGS
- The City reiterates its request for a Local Air pollution Control District

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State Air Pollution Control Board

September 13, 2007

Presented By

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Stack Merger Project Requires a Permit

Stand-alone stack merger

OR

Stack merger and trona injection as a combined project as claimed by Mirant

Stand-Alone Stack Merger

EMISSIONS WILL INCREASE

- Mirant's form 7 and VDEQ's March 2007 analysis showed significant emissions increase
- Project will enable sustained higher heat inputs resulting in higher emissions (Contrary to Storm's assertion, boilers are capable of heat inputs exceeding nameplate capacities as evidenced by 2005 -2006 heat input data. See Slide #12 for detail)
- Due to the installation of significantly more powerful ID fans:
  - *Emission increases due to reduction in gas residence time in ESPs and trona reaction time*

Stand-Alone Stack Merger

- Permit is required because it is a significant physical modifications
- To prevent increase in emissions, a NAAQS-compliant baseline for all pollutants must be established and incorporated into an enforceable permit
- No dispersion credit is allowed because it is an illegal dispersion technique

Stack Merger and Trona as a Combined Project

EMISSIONS WILL INCREASE

- All points mentioned for stand-alone stack merger project still apply
- In addition, there are significant increases in PM_{10}, $PM_{2.5}$ and CO emissions due to trona use
- EPA acknowledged this issue and required Mirant to conduct a NSR applicability analysis for trona in its ACO
- To prevent increase in emissions, a NAAQS-compliant baseline must be established and incorporated into an enforceable permit

Increased PM Emissions with Trona Use

- 20,000 data points over six months reported by Mirant clearly showed significant increase in opacity with trona use
  - *This is a serious issue since $PM_{2.5}$ is >70-80% of total PM_{10} emissions from the plant*
- This region is in a $PM_{2.5}$ non-attainment area

Boiler	Average Opacity		% Increase in Opacity with Trona Use
	Pre-trona (Jan-Aug 2005)	Post-trona (Jan-Aug 2006)	
1	3.86	8.03	110.8
2	4.16	6.76	62.5
3	3.62	3.74	3.3
4	2.61	3.10	18.7
5	2.55	4.10	60.8

Increased CO Emissions with Trona Use

Boiler	CO Emissions (ppm) During Dec 2006 Stack Tests: Trona OFF		CO Emissions (ppm) During Dec 2006 Stack Tests: Trona ON		% Increase in CO Emissions
3	Run 2	359	Run 1	1,019	
3	Run 3	481	Run 4	429	
3	Run 6	258	Run 5	485	
Average	366		644		76%

The average rate of 644 ppm would equal a CO emissions rate of ~1,750 tpy for boiler #3 at 60% boiler capacity utilization, compared to Mirant's annual emissions data of <60 tpy that have been submitted to VDEQ for the past several years

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Single-Boiler Operation Will Cause NAAQS Violations

- Merged stack No. 4 will have larger diameter and therefore lower exit velocity and greater downwash when only one of the boiler #3, #4 or #5 is operational
- 24 out of 45 permitted scenarios under current SO_2 permit involve operation of only one boiler connected to stack No. 4
- These will cause NAAQS violations under current permit (24/45 permitted scenarios) due to greater downwash
- This serious issue can only be evaluated and addressed through a permitting process

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Appropriate NAAQS-Compliant Baseline Must Be Established for All Pollutants in the Permit

2002-2003 is <u>Inappropriate</u> because emissions were <u>not</u> NAAQS compliant

City proposes August 2005 – July 2007 as a more appropriate baseline

Pollutant	Baseline Emissions[1] (tons/yr)	Future Emissions (tons/yr)	Net Emissions Increase (tons/yr)
SO_2	3,813[2]	15,629	11,816
		8,359[4]	4,546
NO_X	1,880	3,700	1,820
PM_{10}	135[3]	549	414
$PM_{2.5}$	116[3]	549	433

[illegible]

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City's Response to Storm Letter

- The Storm letter had a limited scope that was inadequate, was qualitative and not a true engineering analysis
- Contrary to Storm's assertion, the project will enable sustained higher heat inputs resulting in higher emissions. Information on exceedingly high heat inputs for boiler #1 during 2005-2006 obtained on EPA website casts serious doubt on the actual boiler capacities
- It did not in anyway alter VDEQ's March 16, 2007 determination that a minor NSR is required for stack merger
  - *It did not present any calculations on pressure losses and fan sizing as well as evaluation of control strategy for the new fan configurations*
- Letter does not accurately and adequately demonstrate that emissions cannot increase
- Only a permitting process will enable evaluation of impacts on emissions

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Exceedingly High Heat Inputs for Boiler #1 During 2005-2006

Nameplate capacity for boiler #1 is 970.1 MMBtu/hr

Year, Quarter	Max Recorded Heat Input Boiler No. 1 (MMBtu/hr)*		Calculated Fuel Feed Rate (tons/hr)
[illegible]	[illegible]		44
[illegible]	[illegible]		44
[illegible]	[illegible]		44
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	several hours at [illegible]	[illegible]
[illegible]	[illegible]	several hours at [illegible]	[illegible]
[illegible]	[illegible]	Range of [illegible] MMBtu/hr [illegible]	[illegible]
[illegible]	[illegible]	Range [illegible] MMBtu/hr [illegible]	[illegible]
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	Extended hours up to [illegible] MMBtu/hr during [illegible]	94

*Includes data for sustained operation for several hours at a time. Sustained operation was reported on various days at heat input rates far in excess of design rates. Data obtained from [illegible]

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NSR Analysis

- Contemporaneous projects
  - *SOFA, low-NOx burners, trona injection*
- City previously asserted that NSR applied for these projects (e.g., City letter to David Paylor, June 23, 2006, etc.)
- Inadequate regulatory review in the past
- Mirant is required to conduct a NSR applicability analysis regarding trona under the EPA's ACO issued on June 1, 2006
- City still awaiting EPA's and VDEQ's NSR determination
- Stack merger and other future projects should not proceed until adequate analysis has been done on the above projects

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Mirant Must Cease Construction of the Stack Merger

- On-site inspections conducted by VDEQ on August 31 and September 6 demonstrated that Mirant has begun actual construction of the stack merger project in defiance of the Board's ongoing review
- City requests SAPCB to order Mirant to cease all construction activities until it has obtained a permit

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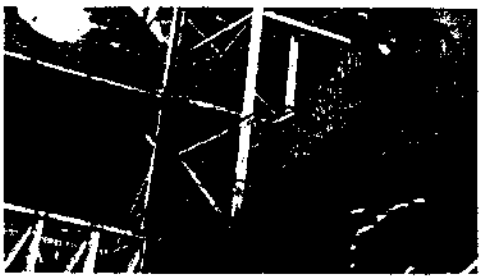

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Quote from VDEQ's 8/31 Inspection

"Scaffolding has been erected around duct work and the ID fans for Unit #4. Ms Knight confirmed that this scaffolding is set in place for the asbestos removal crews. Also in this area, jack hammering was heard from the exterior of the building and debris was observed dropping into the interior of the plant around the ID fans of Unit #4"

"Structural beams in place for new ductwork where the stack protrudes the roof" – VDEQ September 6, 2007

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Duct section being hoisted on September 12, 2007

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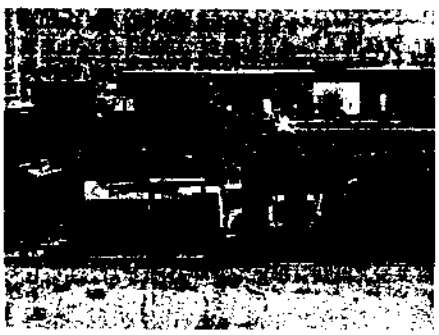

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Alexandria's Requests

Alexandria respectfully requests that the SAPCB

- Make a determination that a permit is necessary for the stack merger project
- Order Mirant to cease all construction activities related to stack merger until it has obtained a permit
- Establish baseline emissions for stack merger project that comply with NAAQS based on previous 24 months of operations
- Require Mirant to perform an NSR applicability analysis by including all contemporaneous increases
- Deny dispersion credit for the stack merger project

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