ASCEND
PERFORMANCE MATERIALS

July 16, 2010

Mr. Rick Bradburn
Air Program Administrator
Department of Environmental Protection
160 Governmental Center
Pensacola, FL 32502-5794

Re: Adipic Acid Permit Application 0330040-034-AC,
Supplement to Ascend's RAI Response of July 2, 2010 Addressing Item #7

Dear Mr. Bradburn:

The attachments to this letter, including RO and PE signature pages, are supplemental clarifications addressing concerns the Department had with the response to Item #7 in Ascend Performance Materials LLC (Ascend's) July 2, 2010 submittal to the Department's Request for Additional Information of June 25, 2010.

If you have any questions regarding the application, please contact Roy Noble at (850) 968-8721 or Jim Schulze at (850) 968-7565.

Very truly yours,

Gary L. Moore
Chemicals & Utilities Plant Manager

Attachments

cc: Mr. Jeff Koerner
Program Administrator, New Source Review
DEP Bureau of Air Regulation
Bob Martinez Center, Mail Station 5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :

   Gary L. Moore, Chemical & Utilities Plant Manager

2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **Ascend Performance Materials LLC**
   Street Address: **P.O. Box 97**
   City: **Gonzalez** State: **FL** Zip Code: **32560-0097**

3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(850) 968-7543** ext. Fax: **(850) 968-7220**

4. Owner/Authorized Representative Email Address: **glmoor1@ascendmaterials.com**

5. Owner/Authorized Representative Statement:

   I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

Signature Date 07/16/10

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14996**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6026 NW 1st Place**
   City: **Gainesville** State: **FL** Zip Code: **32607**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 336-5600** ext.**21156** Fax: **(352) 336-6603**
4. Professional Engineer Email Address: **kkosky@golder.com**
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Kennard F. Kosky — Signature

7/15/10 — Date

(seal)

* Attach any exception to certification statement.

**** Board of Professional Engineers Certificate of Authorization #00001670**

Following Ascend's submittal of a formal response to the Department's Request for Additional Information dated June 25, 2010, the Department requested additional clarification to the response to Item #7. This submittal formalizes the information communicated to the Department in a series of emails dated July 7, 2010 through July 13, 2010. Responsible Official signature pages as well as the Professional Engineer certification are attached.

DEP Question from July 7, 2010 e-mail from Mr. Armando Sarasua:

"There seems to remain an unclear point in the response to RAI item 7.

> The response states: *"The 25 tons S02 was not added to the demand growth emissions, rather it was conservatively added to the projected post project emissions at 930 MAR Adipic Acid production. No changes are required in the Demand Growth Potential Emission (TPY) up to 850 MAR columns. To avoid a PSD significant increase for S02, the Post Project Emissions were calculated by adding 25 tpy S02 to the Baseline Emissions plus Demand Growth. For all other pollutants, the Post Project Emissions were calculated based on heat input needed to support 930 MAR Adipic (16,374,276 Million MMBtu). "Baseline Emissions Plus Demand Growth" emissions were calculated by scaling up the baseline emissions to 850 MAR based on corresponding heat input of 16,060,362 Million MMBtu per year. The addition of 25 TPY to the post project emissions was performed to provide additional operational flexibility, while maintaining overall S02 emissions below PSD review threshold for the project."*

Please explain why SO2 should be treated differently when, for all other pollutants, their emissions were calculated based on heat input needed to support 930 MAR Adipic by multiplying emissions at "baseline plus demand growth" by the ratio of the heat input @ 930 MAR divided by the heat input @ 850 MAR. This ratio, equal to 1.0195, yields an increase of 89.8 TPY SO2, not 25. The addition of only 25 TPY SO2 does not appear to be supported by any verifiable engineering discussion, calculations, documentation or commitment to fuels restrictions and is thus unacceptable."

Ascend's Response, email of July 8, 2010 by Mr. James Schulze

"Thank you for the follow up concerning our response to RAI Item #7. Since the Department requires additional clarification and assurance that the 25 tons/yr SO2 would constitute an enforceable limit, we have developed suggested language for a permit condition as shown herein. Also, we are providing additional explanation on how the 25 tpy limit was derived." ...

"Suggested Condition

Future Actual Emissions Reporting for SO_2. The permittee shall maintain and submit to the Department on an annual basis for a period of 10 years from the date of this permit, information demonstrating in accordance with Rule 62-212.300(1)(e), F.A.C., that the project did not result in significant emission increases of 25 tons/year for SO_2. To demonstrate that the emission increases attributable to the project shall not exceed 25 tons/year over the projected actual emissions as defined in Rule 62-210.200 F.A.C., the SO_2 emission when using # 6 Fuel Oil in Emission Units 014, 015 and 016 shall not exceed 4,616.59 tons/year in any 12-month consecutive period. The permittee shall use the same calculation methodology of emissions as outlined in the application and used to report emissions in Annual Operating Reports pursuant to Rules 62-210.370 F.A.C. and 62-210.900(5) F.A.C. [Rule 62-212.300(1)(e), F.A.C.]

Basis for Condition:

SO2 emissions are almost entirely attributable to the amount of fuel oil burned, as opposed to total heat input. As a result SO2 projected actual emissions at 930 MAR was addressed by selecting a 25 ton/year as a PSD-avoidance level.

Ascend selected the 2003/2004 as the basis for the 24-month period for determining baseline actual emissions. The Powerhouse averaged 3,563.88 tons per year (tpy) SO_2. Boilers 4/5/6 (Emission Units 014, 015 and 016) contributed 3,554.395 tpy SO_2. The use of #6 Fuel Oil contributed 3,554.23 tpy SO_2. Clearly the combustion of fuel oil governs the Powerhouse SO_2 generation (99.729% of the baseline actual emissions are due to Fuel Oil). If more natural gas is burned, in lieu of Fuel Oil, actual emissions at 930 MAR could not possibly exceed a PSD significant threshold.

As part of Ascend's application for construction permit 0330040-034-AC, Ascend proposed an increase in the Powerhouse of 25 tons SO_2 for purposes of allowing fuel flexibility while avoiding a PSD significant increase.

Based on the data presented in Ascend's response to the Department's Request for Additional Information dated June 25, 2010, the Baseline plus Demand Growth SO2 emissions due to Fuel Oil are calculated as follows:

3554.23 tpy SO_2 / 12,431,918.7 MMBtu x 16,060,362.2 MMBtu = 4,591.59 tpy SO_2

The MMBtu are the Powerhouse's annual average heat inputs for 2003/2004 and the calculated Powerhouse heat input at 850 MAR Adipic Acid rates.

Adding 25 tpy SO_2 gives a Fuel Oil limit of 4,616.59 tpy.

Fuel Oil SO2 emissions are calculated using the following equation that uses a mass balance pursuant to Rule 62-210.370 F.A.C. and shown below:

tpy SO2 = Fuel Usage (kgal) x 1000 x Fuel Density (lb/gal) x % Sulfur x (64.06/32.06) / 2000

where (64.06/32.06) is the conversion of sulfur to SO_2

This same methodology would be used to limit SO_2 emissions from Boiler 4, 5 and 6 so that the emission from the project would not exceed 25 tons/year. Please note that these units also have a limit of 57.5 tons per day. The potential emissions would be 20,987.5 tons/year."

DEP Questions from July 9, 2010 e-mail from Mr. Robert Bull in response to Ascend's email of July 8, 2010, forwarded by Mr. Armando Sarasua on July 13, 2010:

"There is nothing in the email that states how they will be limited. Ascend should have some type of fuel limit to meet the SO2 requirements. Also, they indicate additional natural gas usage. Will they increase both natural gas and the ethane rich gas? Do they propose to burn any additional 'supplemental' fuels? How much additional gas (and any supplemental fuels) is needed to reach 930 and how will this affect the other PSD pollutants. They have the statement

about the 10 year reporting. Remind them is applies to all the units and all pollutants. I'll be around all day. Thanks "

Ascend's Response, taken from July 13, 2010 email from Mr. Schulze

"Based upon the conversation between Bobby and Ken, as well as your comments, we have prepared this response addressing the issues surrounding steam generation and enforceable permit conditions. In order to ensure that there would be no possibility for a PSD-significant increase, Ascend and Golder propose specific permit language as follows:

Future Actual Emissions Reporting for SO_2. *The permittee shall maintain and submit to the Department on an annual basis for a period of 10 years from the date of this permit, information demonstrating in accordance with Rule 62-212.300(1)(e), F.A.C., that the project did not result in significant emission increases of 40 tons/year for* SO_2. *The permittee shall maintain and submit to the Department on an annual basis for a period of 10 years from the date of this permit, information demonstrating in accordance with Rule 62-212.300(1)(e), F.A.C., that the project did not result in total* SO_2 *Emissions from fuel oil firing in excess of 4,616.49 TPY in any 12-month rolling period.*

Future Heat Input Limit. *The permittee shall maintain and submit to the Department on an annual basis for a period of 10 years from the date of this permit, information demonstrating in accordance with Rule 62-212.300(1)(e), F.A.C., that the project did not result in total heat input for Emissions Units 003, 004, 014, 015, 016, 032 and 099 in excess of 16,374,276.2 MMBtu/yr from all fuels in any 12-month rolling period and that the total No. 6 fuel oil combustion in Units 014, 015 and 016 did not exceed 3,439,781.33 MMBtu in any 12-month rolling period.*

[Permitting Note: The permittee shall use the same calculation methodology of emissions as outlined in the application and used to report emissions in Annual Operating Reports pursuant to Rules 62-210.370 F.A.C. and 62-210.900(5) F.A.C. [Rule 62-212.300(1)(e), F.A.C.]]

Basis for Conditions

SO_2 emissions are almost entirely attributable to the amount of fuel oil burned, as opposed to total heat input. As a result SO_2 projected actual emissions at 930 MAR were addressed by selecting a 25 ton/year as a PSD-avoidance level.

Ascend selected the 2003/2004 as the basis for the 24-month period for determining baseline actual emissions. The Powerhouse averaged 3,563.88 tons per year (tpy) SO_2. Boilers 4/5/6 (Emission Units 014, 015 and 016) contributed 3,554.395 tpy SO_2. The use of #6 Fuel Oil contributed 3,554.23 tpy SO_2. Clearly the combustion of Fuel Oil governs the Powerhouse SO_2 generation (99.729% of the baseline actual emissions are due to Fuel Oil). If more natural gas is burned, in lieu of Fuel Oil, actual emissions at 930 MAR could not possibly exceed a PSD significant threshold.

As part of Ascend's application for construction permit 0330040-034-AC, Ascend proposed an increase in the Powerhouse of 25 tons SO_2 for purposes of allowing fuel flexibility while avoiding a PSD significant increase.

Based on the data presented in Ascend's response to the Department's Request for Additional Information dated June 25, 2010, the Baseline plus Demand Growth SO_2 emissions due to Fuel Oil are calculated as follows:

3554.23 tpy SO_2 / 12,431,918.7 MMBtu x 16,060,362.2 MMBtu = 4,591.59 tpy SO_2

The MMBtu are the Powerhouse's annual average heat inputs for 2003/2004 and the calculated Powerhouse heat input at 850 MAR Adipic Acid rates.

Adding 24.9 tpy SO_2 (from combusting 18,600 MMBTU/yr of #6 Fuel Oil) gives a Fuel Oil limit of 4,616.49 tpy.

The incremental fuel oil consumption equal to 18,600 MMBtu was determined to limit the project incremental SO_2 emissions below 25 TPY, see **Table 1**.

Detailed calculations presenting the development of the proposed No. 6 fuel oil limit of 3,439,781.33 MMBtu/yr for Units 014, 015 and 016 are presented in **Table 2.** The proposed fuel oil limit is equal to the Baseline + Demand Growth heat input + 18,600 MMBtu/yr.

Table 3 demonstrates the emissions with full fuel oil firing up to 18,600 MMBtu as well as firing the full 313,914 MMBtu project heat input increase on 100% natural gas. Both of these operational scenarios result in lower emission than those proposed for the project except for NOx emission. However, NOx emissions are based on the worst case emission factor and therefore the emissions presented are conservatively high.

Table 4 provides a comparison of the TPY resulting from these operational scenarios.

Table 5 provides an analysis of what emissions changes would occur if the facility fires natural gas for the entire amount of the proposed fuel oil limitation (3,439,781.33 MMBtu/yr) to demonstrate that emissions would decrease if natural gas is fired in place of fuel oil.

Fuel Oil SO_2 emissions are calculated using the following equation that uses a mass balance pursuant to Rule 62-210.370 F.A.C. and shown below:

tpy SO_2 = Fuel Usage (kgal) x 1000 x Fuel Density (lb/gal) x % Sulfur x (64.06/32.06) / 2000

where (64.06/32.06) is the conversion of sulfur to SO_2

Additional Information

Also, with regard to other questions posed by the Department, Ascend has not burned ethane rich gas in the last ten years and has no plans to do so in the future. Perdido Landfill gas has not been burned by Ascend in the past and will not be burned in the future. Furthermore, since there are no physical or operational changes at the Halcon or P2K Units, the use of KATT composite fuel in Boilers 4 and 5 will not increase above the amount from production levels associated with 850 MAR of adipic acid. The maleic off gas used in Boilers 7 and 8 varies based on production in the Maleic Anhydride Unit which is unaffected by this project. Emission factors for Boilers 7 and 8 are established based on stack tests with the exception of CO where a CEMS is utilized. The same emission factor is used for both gaseous fuels on an MMBtu basis.

Additional steam required by the project will be produced by burning Fuel Oil in Boilers 4, 5 or 6 or by combusting natural gas in Boilers 4, 5, 6, 7, 8, 9 and/or the Cogeneration unit. Conservative emissions are shown in the attached Tables and further confirm the PSD assessment for this project.

Ascend recognizes that the ten year reporting applies to all units and not just Adipic Acid and the Powerhouse. Ascend acknowledges that a general administrative permit condition requiring a summary report of all emissions associated with this project for a period of ten years is appropriate."

Ascend appreciates the opportunity to provide this additional information for the Department's consideration.

Table 1. Demonstration of 25 TPY SO2 Emission Increase for the Adipic Acid 930 MAR Project.

I. Hypothetical Combustion Emissions from 850 MAR to 930 MAR (Direct scaling of baseline emissions based on 930 MAR adipc production)

	Emission Factor for 850 MAR	Heat Input from 850 MAR to 930 MAR			
	lb/MMBtu	Mmbtu/yr	lb/yr	TPY	
SO2	0.5730	313914	179872.7	89.94	(Not proposed)

II. Proposed Incremental Fuel Oil Combustion Limitation Based on Baseline Fuel Use and Sulfur Content

Fuel Oil Combustion

	Heat Input from 850 MAR to 930 MAR		
	Mmbtu/yr	lb/yr	TPY [a]
SO2	18,600	49795.9	24.90

Natural Gas Combustion

	AP-42 Factor[b]		Heat Input from 850 MAR to 930 MAR		
	lb/MMscf	*lb/MMBtu*	Mmbtu/yr	lb/yr	TPY
SO2	0.6	0.0006	295,314	173.7	0.09

Tota Incremetnal Combustion Emissions

	TPY		
SO2	**24.98**	<	**25 TPY**

[a] TPY SO2 = Fuel Usage (kgal) x 1000 x Fuel Density (lb/gal) x % Sulfur x (64.06/32.06) / 2000
where (64.06/32.06) is the conversion of sulfur to SO_2

[b] EPA AP-42 Table 1.4-2.

Note: Fuel oil combustion emissions and MMBtu/yr based on Based on fuel oil specs of baseline years 2003 and 2004.

Table 2. Proposed Fuel Flexibility for the Adipic Acid 930 MAR Project.

Proposed Annual Fuel Oil Use Limitation:

Baseline Fuel Consumption

	Fuel Consumption					
Baseline Years	Total MMBtu	Natural Gas MMBtu	Fuel Oil MMBtu	Fuel Oil S Content %	Fuel Oil Heat Content MMBtu/kgal	Fuel Density lb/gal
2003	12,476,271	8,065,040	2,708,216	2.44	151	8.212
2004	12,387,566	8,089,709	2,588,283	2.52	153	8.212
Average	**12,431,919**	**8,077,374**	**2,648,250**	**2.48**	**152**	8.212
% of Total		65.0	21.3			

SO2 = Fuel Use (kgal) x 1000 x Fuel Density (lb/gal) x % Sulfur x (64.06/32.06) / 2000

Baseline + Demand Growth Fuel Oil Heat Input

3,421,181.33 MMBtu = 21.3% of 16,060,362.20 (Baseline + Demand Growth MMTU/Yr)

Proposed Annual Fuel Oil Use Limitation

3,439,781.33 = 3,421,181.33 MMBtu + 18,600 MMBtu

Table 3. Proposed Fuel Flexibility for the Adipic Acid 930 MAR Project - All Pollutants

I. Proposed Emissions from 850 MAR to 930 MAR

		Heat Input from 850 MAR to 930 MAR Mmbtu/yr		TPY
CO	0.0280	313914	8789.6	4.39
NOX	0.1540	313914	48342.8	24.2
PM/PM10	0.0426	313914	13372.7	6.69
SO2		313914		**25.00**
VOC	0.0078	313914	2448.5	1.22

Comparison of Estimated Range of Emissions based on Fuel Oil Sulfur Content Compared with Proposed Emissions

Fuel Oil Combustion 18,600 MMBtu TPY	Change from Proposed TPY	Zero Fuel Oil Consumption TPY	Change from Proposed TPY
3.78	-0.61	3.69	-0.70
26.57	2.40	26.16	1.99
2.69	-3.99	1.17	-5.52
24.98	-0.02	0.09	-24.91
1.13	-0.09	0.85	-0.38

Note. Assumes worst case NOx emission factor, therefore emissions presented are conservatively high.

II. Proposed Incremental Fuel Oil Combustion Limitation Emissions

Fuel Oil Combustion

	AP-42 Factor lb/Mgal	lb/MMBtu	Heat Input from 850 MAR to 930 MAR Mmbtu/yr	lb/yr	TPY*
CO	5	0.0329	18,600	611.8	0.31
NOX	32	0.2105	18,600	3915.8	2.0
PM/PM10	26.01	0.1711	18,600	3182.9	1.59
SO2			18,600	49795.9	24.90
VOC	5.5	0.0362	18,600	673.0	0.34

EPA AP-42 Table 1.3-1.

* TPY SO2 = Fuel Usage (kgal) x 1000 x Fuel Density (lb/gal) x % Sulfur x (64.06/32.06) / 2000
where (64.06/32.06) is the conversion of sulfur to SO2

Note: Fuel oil combustion emissions and MMBtu/yr based on Based on fuel oil specs of baseline years 2003 and 2004.

Natural Gas Combustion

	AP-42 Factor lb/MMscf	lb/MMBtu	Heat Input from 850 MAR to 930 MAR Mmbtu/yr	lb/yr	TPY
CO	24	0.0235	295,314	6948.6	3.47
NOX	170	0.1667	295,314	49219.0	24.6
PM/PM10	7.6	0.0075	295,314	2200.4	1.10
SO2	0.6	0.0006	295,314	173.7	0.09
VOC	5.5	0.0054	295,314	1592.4	0.80

EPA AP-42 Table 1.4-1, and 1.4-2.

Tota incremetnal Combustion Emissions

	TPY		Fuel Use (kgal)
CO	3.78		
NOX	26.57		
PM/PM10	2.69		
SO2	24.98	<	25 TPY
VOC	1.13		

II. Proposed Incremental Emissions based on Zero Fuel Oil Combustion

Natural Gas Combustion

	AP-42 Factor lb/MMscf	lb/MMBtu	Heat Input from 850 MAR to 930 MAR Mmbtu/yr	lb/yr	TPY
CO	24	0.0235	313,914	7386.2	3.69
NOX	170	0.1667	313,914	52319.0	26.2
PM/PM10	7.6	0.0075	313,914	2339.0	1.17
SO2	0.6	0.0006	313,914	184.7	0.09
VOC	5.5	0.0054	313,914	1692.7	0.85

EPA AP-42 Table 1.4-1, and 1.4-2

Table 4. Comparison of Proposed Project Emissions

	Direct scaling of baseline emissions based on 930 MAR adipc production TPY	Proposed Emissions TPY	Incremental Fuel Oil Consumption 18,600 MMBtu[a] TPY	Zero Incremental Fuel Oil Consumption[b] TPY
CO	4.39	4.39	3.78	3.69
NOX	24.2	24.2	26.57	26.16
PM/PM10	6.69	6.69	1.30	1.17
SO2	89.94	25.00	24.98	0.09
VOC	1.22	1.22	1.13	0.85

[a] Incremental emissions based on 18,600 MMBtu of oil firing and 295,314 MMBtu Gas firing

[b] Incremental emissions based on 0 MMBtu of oil firing and 313,914 MMBtu Gas firing

Table 5. Estimated Emissions Reductions Based on 100% Natural Gas Firing of Total Fuel Oil Allowable Limitation

Fuel Oil Combustion

	AP-42 Factor				
	lb/Mgal	*lb/MMBtu*	Mmbtu/yr	lb/yr	TPY
CO	5	0.0329	3,439,781	113150.7	56.58
NOX	32	0.2105	3,439,781	724164.5	362.1
PM/PM10	26.01	0.1711	3,439,781	588637.1	294.32
SO2[a]			3,439,781	9208974.8	4604.49
VOC	5.5	0.0362	3,439,781	124465.8	62.23

EPA AP-42 Table 1.3-1.

[a] SO2 TPY= 3,439,781.33/152 MMBtu/kgal*1000 gal/kgal*8.212 lb/gal*2.48%/100*(64.06/32.06)

Natural Gas Combustion

	AP-42 Factor					Emission Reduction from Replacing Fuel Oil firing with Natural Gas
	lb/MMscf	*lb/MMBtu*	Mmbtu/yr	lb/yr	TPY	TPY
CO	24	0.0235	3,439,781	80936.0	40.47	-16.11
NOX	170	0.1667	3,439,781	573296.9	286.6	-75.43
PM/PM10	7.6	0.0075	3,439,781	25629.7	12.81	-281.50
SO2	0.6	0.0006	3,439,781	2023.4	1.01	-4603.48
VOC	5.5	0.0054	3,439,781	18547.8	9.27	-52.96

EPA AP-42 Table 1.4-1, and 1.4-2.