

Golder Associates Inc.

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Gainesville, FL 32653-1500
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Fax (352) 336-6603



December 2, 2008

063-7643

Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED

DEC 04 2008

BUREAU OF AIR REGULATION

Attention: Mr. Scott M. Sheplak, P.E.

**RE: MOSAIC FERTILIZER, LLC
PROJECT NO. 0570008-061-AC
BEST AVAILABLE RETROFIT TECHNOLOGY (BART) EXEMPTION REQUEST
MOSAIC FERTILIZER, LLC, RIVERVIEW FACILITY**

Dear Mr. Sheplak:

Mosaic Fertilizer, LLC (Mosaic) has received the Florida Department of Environmental Protection's (FDEP) request for additional information (RAI) dated September 9, 2008, regarding the Riverview BART exemption application. A response to this RAI was submitted on September 30, 2008, however the responses to Comment 1.b, 1.c, and 1.d were not included at that time. The responses to these comments are presented below. Mosaic also received an email on October 31, 2008, with one additional question. This question is answered after the RAI comments below.

Comment 1. b. Based on the 2003-2007 data, has the level of actual emissions in units of lb/ton 100% H₂SO₄ compared to the permit allowable in terms of a percentage (%) from each SAP for each averaging period changed?

Response: Graphs of the actual annual average hourly lb/ton values, as well as the percentage of the 3-hour and 24-hour SO₂ emission limits that each sulfuric acid plant achieved during the 2003-2007 years, are presented in Figures A-1, A-2, and A-3 attached.

As shown by the graphs, the annual average lb/ton values have remained level or increased slightly from 2003 through 2007, on both an actual basis, as well as a percentage of the permitted emission limits for the 3-hour and 24-hour averaging periods. The data that presented in these graphs was derived from the hourly average CEM data from each sulfuric acid plant, where faulty CEM data was removed (less than 5% of the hourly values from 2003 to 2007).

Comment 1. c. Using SO₂ continuous emissions monitoring system (CEMS) data, please provide the actual tons per year (TPY) of SO₂ for calendar years in the form of a chart for each SAP for calendar years 2003-2007.

Response: This chart has been included as Figure A-4 attached. The actual SO₂ emissions were calculated from the CEM data by multiplying the hourly average lb/ton SO₂ emissions by the hourly H₂SO₄ production rate, and then summed for each year. The annual SO₂ emissions from each sulfuric acid plant may differ from the facility annual operating reports (AORs) because CEM data during the annual stack testing has been used for previous AOR reporting.

Comment 1. d. Please provide the actual tons of 100% H₂SO₄ produced from each SAP for calendar years 2003-2007 in the form of a chart.

Response: This chart has been included as Figure A-5 attached.

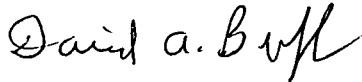
Email Comment The Haldor Topsoe VK series product literature provided in the response dated 9/30/2008 for item 2.d., indicates that there are three types of catalyst that are 12 mm daisy-shaped – VK38, VK48, and VK59. Which 12 mm daisy-shaped catalyst was used in the Haldor Topsoe supplier study submitted with the BART exemption request application in Appendix C?

Response: The Haldor Topsoe supplier study used VK38 in passes 1 and 2, and VK48 in passes 3 and 4.

Thank you for consideration of this information. If you have any questions, please do not hesitate to call me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P.E., Q.E.P.
Principal Engineer

DB/nav

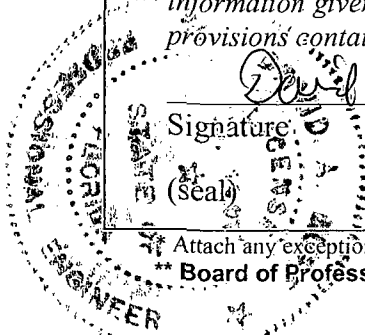
Enclosures

cc: D. Turley, Mosaic
D. Jagiella, Mosaic
D. Jellerson, Mosaic
S. Mohammad, Golder

R112608_643.doc

FACILITY INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: David A. Buff Registration Number:
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. 545 Fax: (352) 336-6603
4. Professional Engineer Email Address: dbuff@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(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</i> <i>(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.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, 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.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/>, 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 <input type="checkbox"/>, 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.</i> <i>(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 <input type="checkbox"/>, 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.</i> Signature: <u>David A. Buff</u> Date: <u>12/2/08</u> Seal: 

* Attach any exception to certification statement.

Board of Professional Engineers Certificate of Authorization #00001670

FIGURE A-1
ANNUAL AVERAGE LB/TON SO₂ FROM EACH SULFURIC ACID PLANT, MOSAIC RIVERVIEW

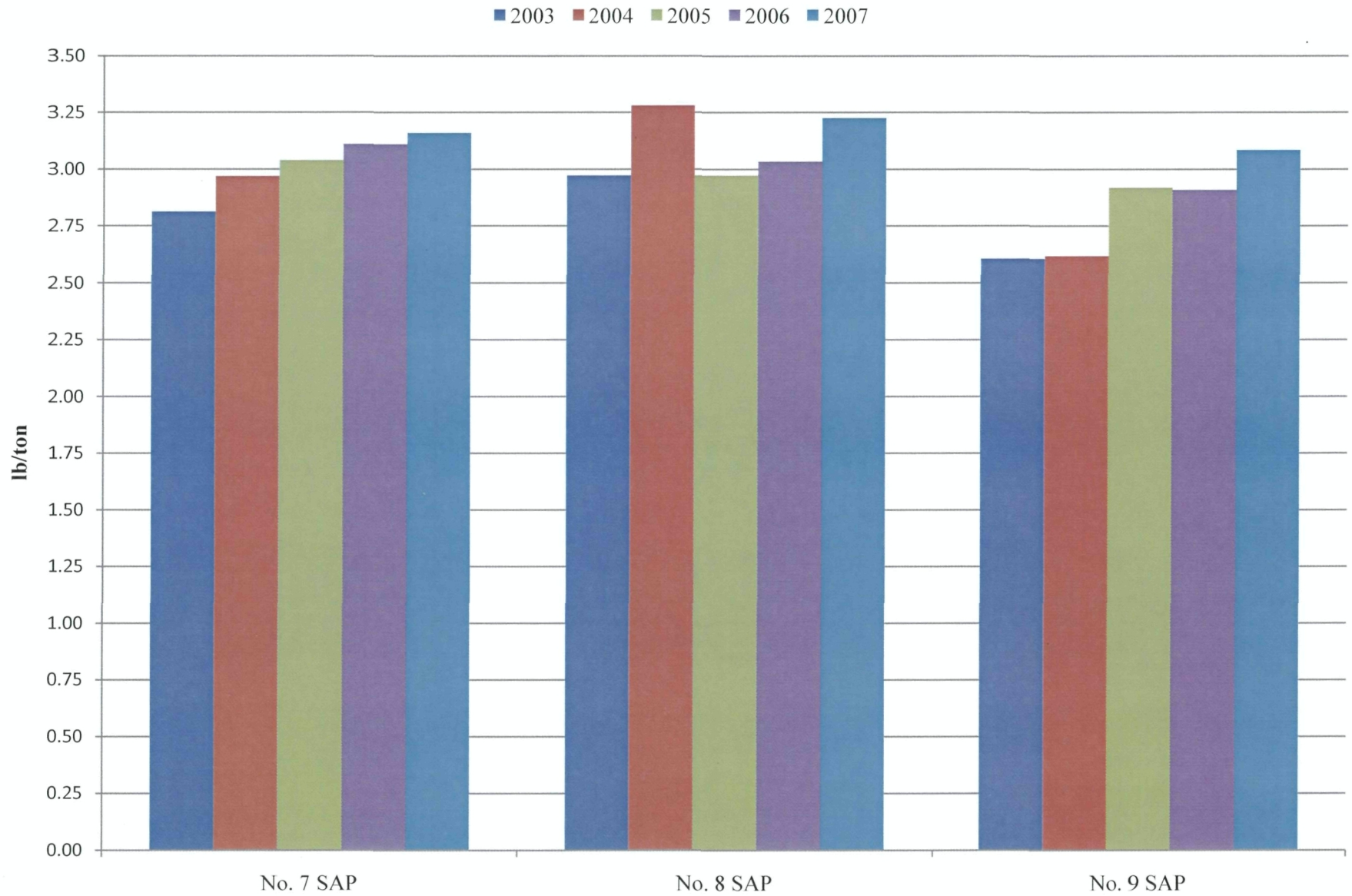


FIGURE A-2
PERCENTAGE OF 4.0 LB/TON LIMIT (3-HR AVERAGE) FOR SULFURIC ACID PLANTS
MOSAIC RIVERVIEW

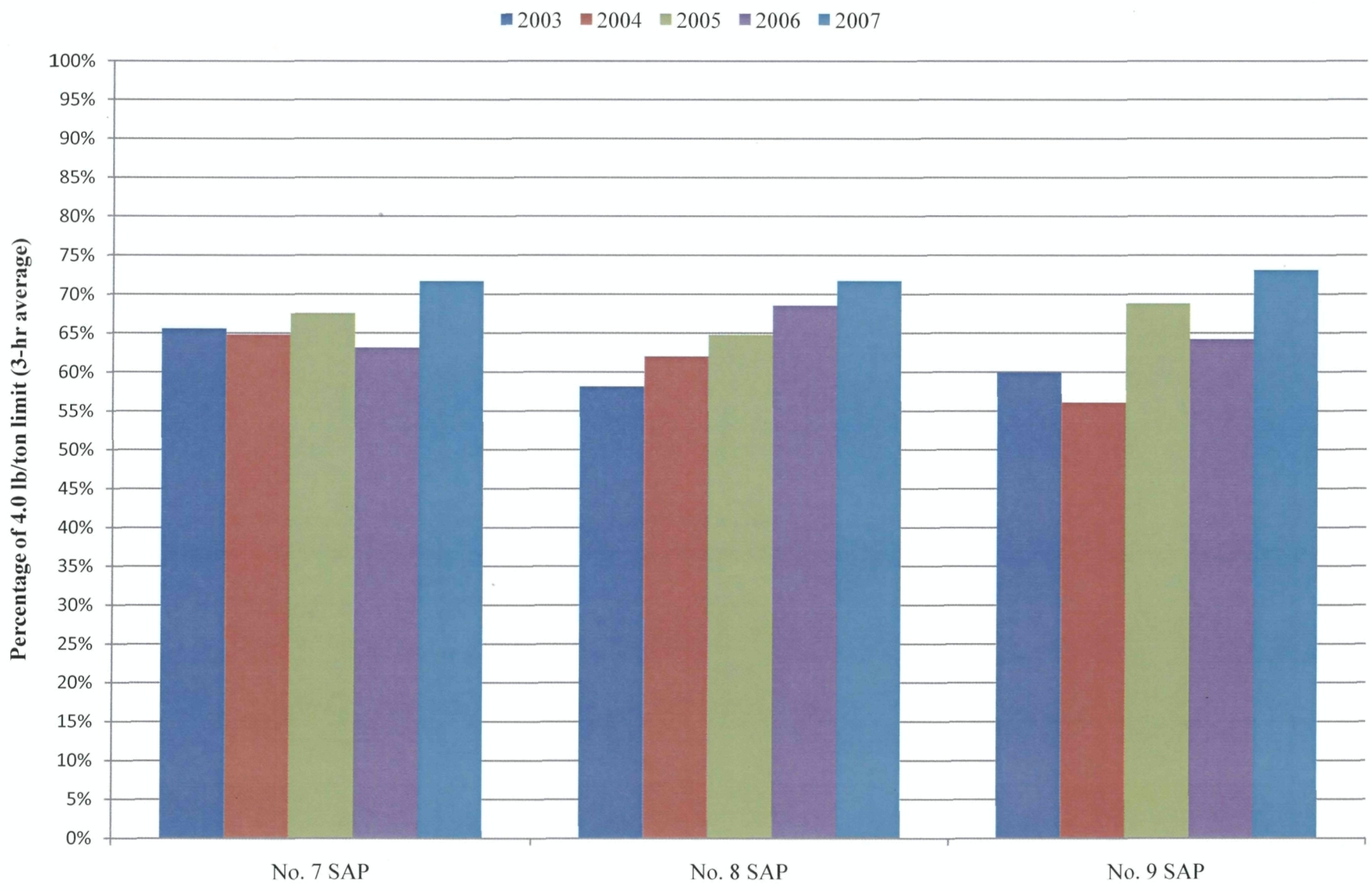


FIGURE A-3
PERCENTAGE OF 3.5 LB/TON LIMIT (24-HR AVERAGE) FOR SULFURIC ACID PLANTS
MOSAIC RIVERVIEW

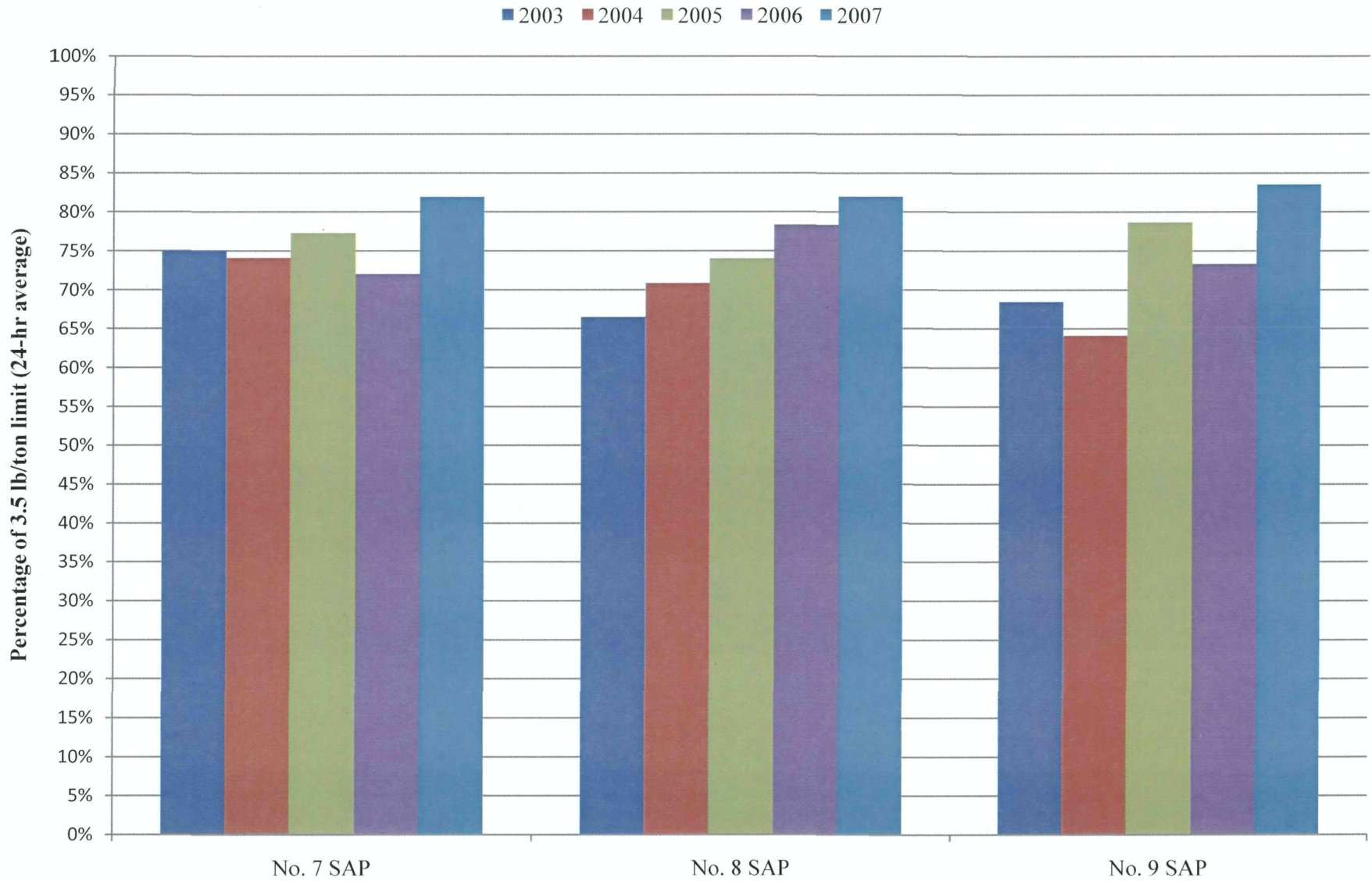


FIGURE A-4
TPY SO₂ FROM EACH SULFURIC ACID PLANT, MOSAIC RIVERVIEW

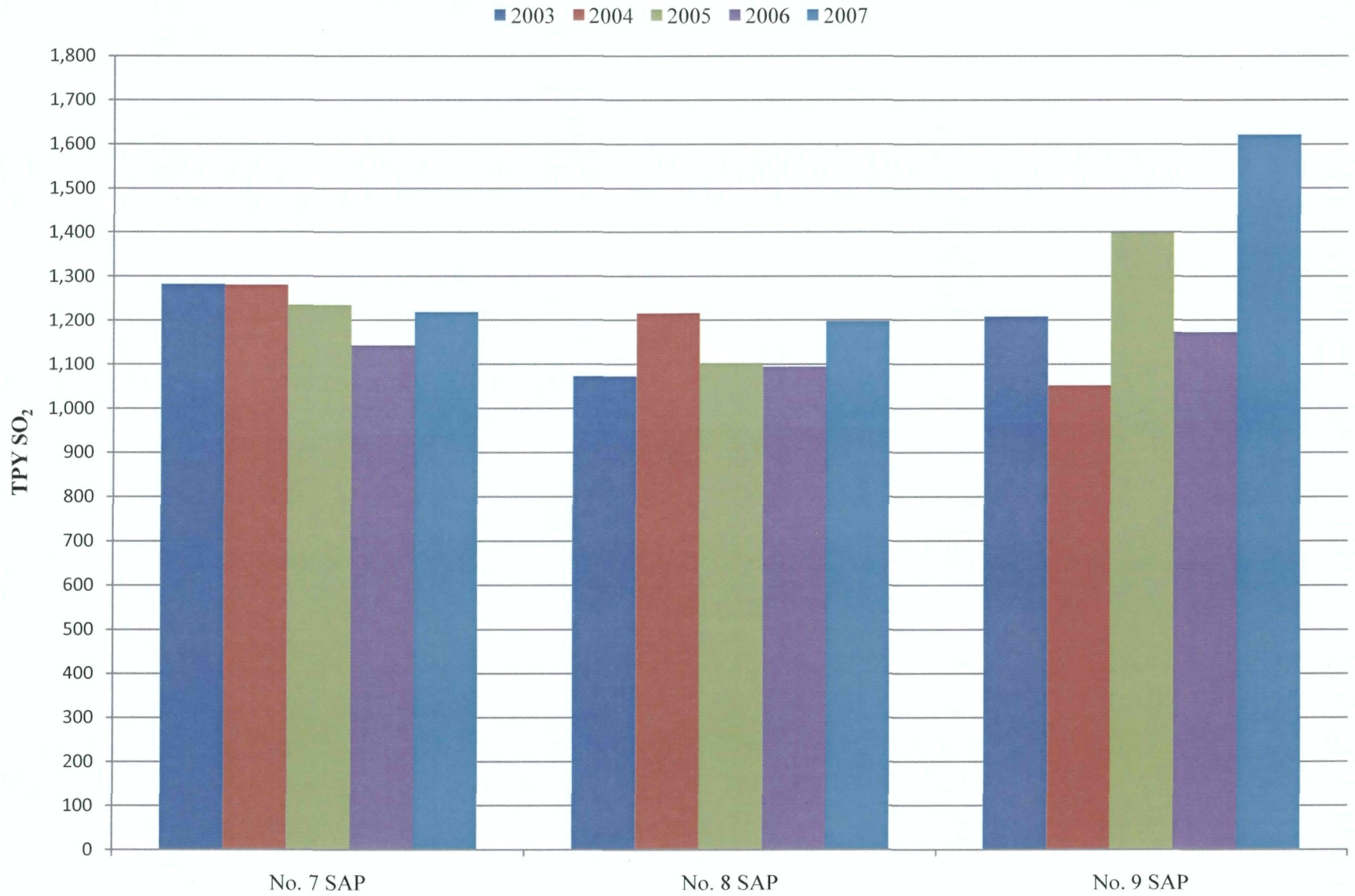
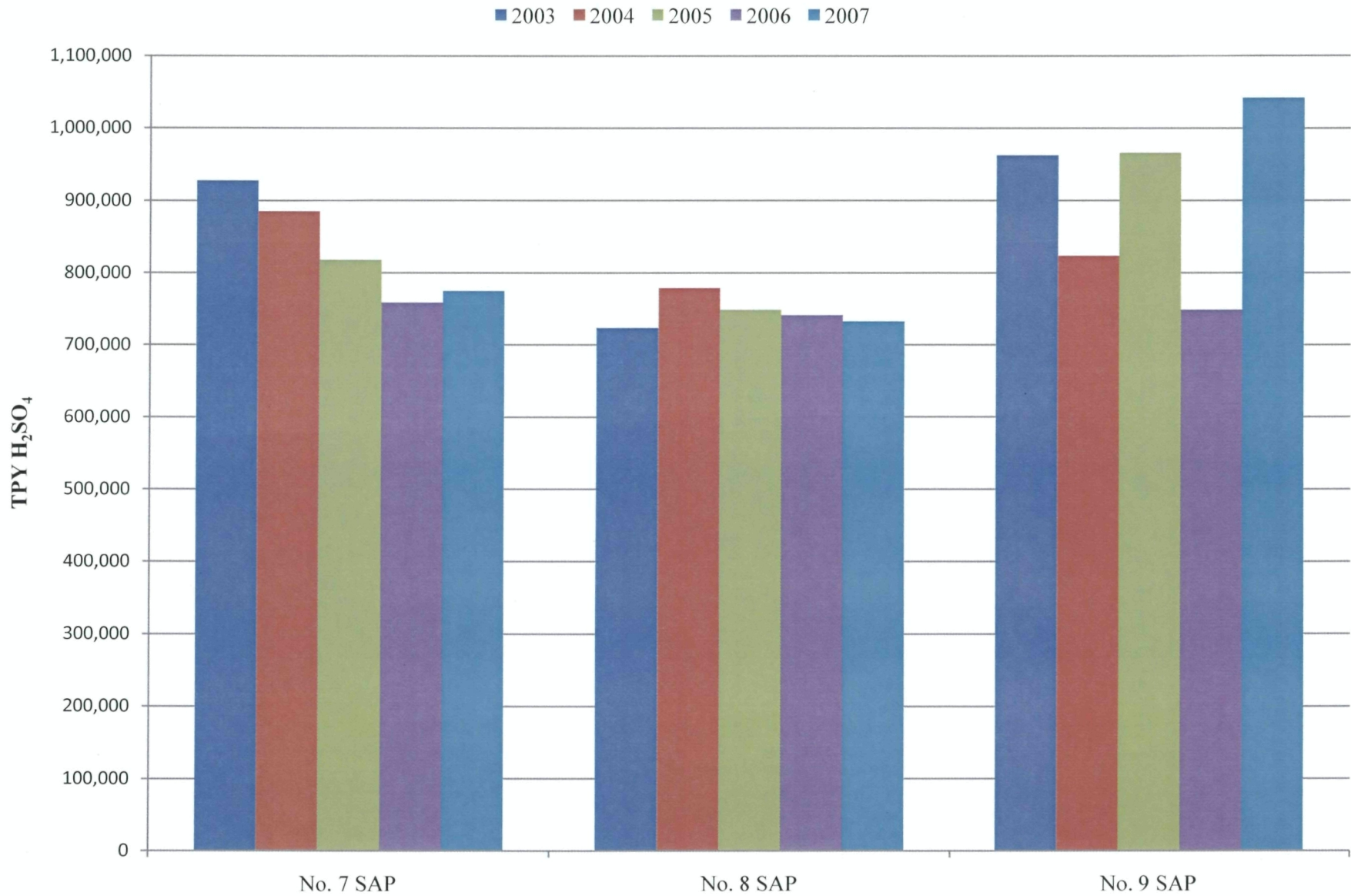


FIGURE A-5
TPY H₂SO₄ PRODUCTION FROM EACH SULFURIC ACID PLANT, MOSAIC RIVERVIEW



Sheplak, Scott

- file -

From: Friday, Barbara
Sent: Friday, December 05, 2008 1:28 PM
To: lee@epchc.org; Zhang-Torres; 'dee_morse@nps.gov'; Forney.Kathleen@epamail.epa.gov
Cc: Sheplak, Scott
Subject: Mosaic Fertilizer, LLC - 0570008-061-AC, BACT Exemption Request
Attachments: MosaicFertilizer,LLC-0570008-061-AC(BACT)ExemptionRequest.pdf

FYI.

12/5/2008