

Golder Associates Inc.

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Bureau of Air Monitoring
& Mobile Sources

May 12, 2003

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Florida Department of Environmental Protection
Bureau of Air Monitoring and Mobile Sources
Emissions Monitoring Section
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Attention: Mr. Errin Prichard, P. E., Administrator

RE: ALTERNATIVE MONITORING PLAN FOR CARGILL FERTILIZER, INC. -
RIVERVIEW PLANT
INITIAL TITLE V PERMIT NO. 0570008-014-AV
REQUEST FOR ADDITIONAL INFORMATION

Dear Mr. Prichard:

Cargill Fertilizer Inc. and Golder Associates Inc. have received the Department's letter dated March 10, 2003, concerning the proposal of an alternative monitoring plan to meet the 40 CFR 63 Subparts AA and BB requirements. Each of the Department's requests are addressed below, in the same order as they appear in the Department's letter. The MACT Alternative Monitoring Plan submitted to the Department on February 10, 2003, is referenced as appropriate.

1. Although Cargill's MACT Alternative Monitoring Plan included all the scrubbers in the plant scrubbing system, the primary purpose of the venturi scrubbers is not for fluoride control, but rather for product and ammonia recovery. Therefore, these scrubbers should not be covered under the MACT. This is why Cargill proposed to retain the scrubber parameter limits contained in the current Title V permit. Since these scrubbers are not covered under the MACT, Cargill believes that any changes to these parametric parameters should be managed through the FDEP Southwest District Office. The scrubbers at Riverview covered under the MACT regulations are listed in Table 1 attached.

2. The maximum liquid flow rate on the non-venturi scrubbers at Riverview is limited by the physical capacity of the pumping/piping system. The scrubber pumps provide a relatively constant energy input to the system. At optimum conditions, just after system maintenance, the liquid flow rate may be the highest, when minimum impedance in the system exists. The scrubbers are designed to accommodate these maximum liquid flow rates. In addition, if the liquid flow rate became excessive based on actual scrubber operating conditions, this would result in scrubber liquor carryover, but would not reduce scrubber efficiency. Therefore, it is not necessary to place an upper limit of liquid flow rate.

The actual liquid flow rate delivered to the scrubbers is dependent upon factors such as the degree of scaling, fouling, etc. in the piping and scrubber nozzles, time since last system maintenance, etc. Over time, due to these factors, the liquid flow rate to the scrubbers may be reduced, thereby reducing scrubber efficiency. Therefore, it is appropriate to limit the minimum scrubber liquid flow rate.

3. It is feasible to measure pressure drop across the non-venturi scrubbers. Cargill stated in its proposed plan why it believes fan amperage is a better indicator of performance than pressure drop for non-venturi scrubbers, not that it was infeasible to measure pressure drop across these scrubbers. However, the fact that such monitoring is feasible does not preclude an alternative monitoring technique from being approved.

4. The fans operate at constant speed. Dampers are used in the scrubber systems to achieve a relatively constant flow rate.

Cargill has analyzed historical fluoride compliance test data, and has found no definitive correlation between scrubber performance and any scrubber parameters. The parameters monitored have included pressure drop, scrubbing media flow rate, and fan amps.

5. Fan amperage will be recorded continuously and averaged over 24 hours to obtain a 24-hour average value. The 24-hour averaging time is consistent with the scrubber parameter monitoring required under Subparts AA and BB.

6. For the Phosphoric Acid Plant, which is currently being modified under permit No. 0570008-036-AC, Cargill proposes to conduct the initial performance tests within 60 days of achieving maximum production, or within 180 days of startup of the modified plant, whichever occurs first.

Please refer to the attached Table 1 for a summary of proposed scrubber parameters for the No. 5 DAP Plant, the GTSP Plant, and the Nos. 3 and 4 MAP Plants. These parameters are based on $\pm 20\%$ of the average of the last 5 years of compliance tests, or the historic minimum, whichever is lower. Since these values are based on historic data, no further performance testing is proposed at this time. However, in the event that the control devices and/or processes are modified as allowed under current construction permits, additional performance tests will be performed upon completion of construction to verify or reestablish the baseline values.

Please call myself at (325) 336-5600 or Kathy Edgemon at (813) 671-6369 if you have any questions concerning this information.

Sincerely,
GOLDER ASSOCIATES INC.



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

DB/jej

Enclosures

Cc: K. Edgemon
D. Jellerson
FDEP SW District, G. Kissel

Table 1. Proposed Parametric Values for Fluoride Scrubbers, Cargill Riverview Plant

Riverview	Based on Historical Test Data			Basis
	Proposed Min Limit Media Flow (gpm)	Proposed Min Limit Fan Amps	Proposed Max Limit Fan Amps	
#5 DAP				
RGCE Tailgas Scrubber	3,162	115	173	+/- 20% of 5 year average
Dryer Tailgas Scrubber	combined flow	64	96	
GTSP				
RGCV Tailgas Scrubber	926	96	145	+/- 20% of 5 year average, or min/max historic value
Dryer Tailgas Scrubber	815	109	163	
MAP				
#3 Arco Scrubber	236	54	81	+/- 20% of 5 year average
#4 Arco Scrubber	219	60	89	

Note: blue values are minimum tested value from past 5 years.
black values are +/- 20% of 5 year average.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: Mr. E. O. Morris, Vice President
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Cargill Fertilizer, Inc. Street Address: 8813 Highway 41 South City: Riverview State: FL Zip Code: 33569
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (813) 671 - 6158 Fax: (813) 671 - 6149
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [], if so) or the responsible official (check here [X], if so) of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions unit.</i> Signature <u>E. O. Morris</u> Date <u>5-12-03</u>

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: David A. Buff Registration Number: 19011
2. Professional Engineer Mailing Address: Organization/Firm: Golder Associates Inc. * Street Address: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653-1500
3. Professional Engineer Telephone Numbers: Telephone: (352) 336 - 5600 Fax: (352) 336 - 6603

* Board of Professional Engineers Certificate of Authorization #00001670

4. 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.

If the purpose of this application is to obtain a Title V source air operation permit (check here [X], 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 schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision 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.

David A. Buff
Signature

5/12/03
Date

(seal)

* Attach any exception to certification statement.