

Note: This is a reference cited in *AP 42, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the reference number, the AP42 chapter and section. The file name "ref02_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.



JOE D. TANNER
Commissioner

J. LEONARD LEDBETTER
Division Director

Department of

ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

A- AMMONIUM NITRATE
AP-42 Section 6.8
Reference Number
16

May 21, 1980

Mr. Roger Rader
Radian Corporation
3024 Pickett Road
Durham, North Carolina 27705

Dear Mr. Rader:

Please find enclosed test results for the Ammonium Nitrate Prill facility of Columbia Nitrogen in Augusta. If you have any questions or comments, please contact me.

Sincerely,

Lou Musgrove
Environmental Engineer
Air Pollution Compliance Program

LM:sw

Enclosure

file - CNC, Augusta



Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION

270 WASHINGTON STREET, S.W.

ATLANTA, GEORGIA 30334

JOE D. TANNER
Commissioner

Received
FEB 8 1979

LEONARD LEDBETTER
Division Director

February 6, 1979

AIR PROTECTION BRANCH

M E M O R A N D U M

TO: Mr. Lou Musgrove
Environmental Engineer *LM*
Air Pollution Compliance Program

FROM: William F. Timpone
Environmental Engineer *WFT*
Air Quality Evaluation Section

SUBJECT: Source Testing Requirements for
Ammonium Nitrate and Urea Plants
at Columbia Nitrogen Corporation
Augusta, Georgia

As agreed, please include the following particulate sampling requirements in your correspondence summarizing our meeting at Columbia Nitrogen on January 24, 1979. Tests are to be conducted on the Ammonium Nitrate Plant processing both high and low density material and on the Urea Plant.

- 1) Ammonium Nitrate Plant - High density material

On the prill tower the Brinks Scrubber stack shall be sampled by one test team and the three non-controlled stacks shall be sampled collectively by another test team. On the non-controlled stacks, one test run shall consist of three consecutive stack traverses with one traverse being conducted along one diameter in each stack utilizing sixteen (16) points per traverse. The sample recovery shall be performed after third stack has been sampled.

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Memorandum
TO: Mr. Lou Musgrove
February 6, 1979

Three (3) test runs for particulate shall be conducted on the Brinks Scrubber stack and on the three non-controlled stacks. The sampling period of each run for the Brinks Scrubber stack shall be simultaneous with the sampling period of each run for the collective sampling of the non-controlled stacks.

The stacks from the cooler do not have to be sampled simultaneously with the prill tower tests. However, three test runs for particulate should be performed on each stack such that the two cooler stacks are sampled simultaneously.

2) Ammonium Nitrate Plant - Low density material

For the prill tower only the three non-controlled stacks will be sampled during the processing of low density material. The Brinks Scrubber will not be in operation and there will be no emissions from this stack. The non-controlled stacks shall be sampled collectively in the same manner as outlined above for the high density material.

For the remaining sources the two cooler stacks shall be sampled simultaneously as outlined above for high density material. Since the dryer will be in operation, the Low Density Scrubber Stack shall be sampled. Three (3) test runs for particulate shall be performed on the Low Density Scrubber Stack.

3) Urea Plant Prill Tower

The six (6) non-controlled stacks on the Urea Plant Prill Tower shall be sampled as follows:

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Memorandum
TO: Mr. Lou Musgrove
February 6, 1979

The three (3) outer stacks shall be sampled collectively as outlined above for the non-controlled stacks on the Ammonium Nitrate Plant for high density material. The three (3) inner stacks on the Urea Plant Prill Tower shall be sampled collectively in the same manner. Three test runs for particulate shall be conducted on each set of three stacks and the test runs shall be conducted simultaneously.

WFT/ed

cc: Mr. William D. Estes
Mr. Michael E. Fogle



JOE D. TANNER
Commissioner

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Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

J. LEONARD LEDBETTER
Division Director

February 8, 1979

Mr. Richard Lawson
~~Columbia Nitrogen Corporation,~~
P.O. Box 1483
Augusta, Georgia 30903

FILE mf

Dear Mr. Lawson:

This letter is to confirm the points agreed upon in our meeting on January 24, 1979 in Augusta, Georgia.

The compliance testing for the expanded nitrogen facilities is hereby delayed until the last two weeks in June, 1979. The testing is being delayed so that the compliance tests are conducted during the release of the highest amount of particulate, which comes during the highest ambient temperature. This would be the "worst case" for particulate emissions. The sources to be tested are listed below:

- 1) Low density ammonium nitrate
 - a. Prill tower
 - b. Dryer
 - c. Cooler (2 stacks)
- 2) High density ammonium nitrate
 - a. Prill tower with Brink
 - b. Cooler (2 stacks)
- 3) Urea Prill Tower

Enclosed is the memorandum from Bill Timpone concerning the methods to be used in testing the above sources. If you have any questions or comments, please contact me.

Sincerely,

Lou Musgrove
Environmental Engineer
Air Pollution Compliance Program

LM:mfw

Enclosure



JOE D. TANNER
Commissioner

J. LEONARD LEDBETTER
Division Director

Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

File
CNC - August

April 4, 1979

RE

APR 5 1979

AIR PROTECTION BRANCH

see → for
BEAL
Mr. B. M. Beal
Manager, Environmental Activities
Columbia Nitrogen Corporation
P. O. Box 1483
Augusta, Georgia 30903

Dear Mr. Beal:

The Environmental Protection Division has received your notice of particulate emission testing to be performed on the Ammonium Nitrite facility in Augusta, Georgia on April 17, 1979. For these tests the following State of Georgia test methods and procedures apply:

- (1) Method 1 for sample point selection.
- (2) Method 2 for velocity and volumetric flow rate determination.
- (3) Method 3 for gas composition and molecular weight.
- (4) Method 5 for concentration of particulate matter and associated moisture content.

For Method 5, for each run, the sampling time shall be at least 60 minutes and the sample volume at least 30 dscf. The minimum sample rate shall be 0.53 cfm and the minimum sampling time per traverse point shall be 2 minutes.

These methods are identical to published methods of identical reference given in the Code of Federal Regulations, Title 40, Part 60, Appendix A.

Please advise if you have any questions or need additional clarification.

Sincerely,

Michael E. Fogle

Michael E. Fogle
Unit Coordinator
Air Quality Evaluation Section

MEF:lb

cc: Mr. William D. Estes
Mr. John W. Mitchell ✓



Mitchell
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Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

JOE D. TANNER
Commissioner

J LEONARD LEDBETTER
Division Director

March 6, 1980

RECEIVED

MAR 7 1980

M E M O R A N D U M

TO: Mr. Marvin M. Lowry
Section Chief
Air Quality Control Section

THROUGH: Michael E. Fogle *mf*
Unit Coordinator
Air Quality Evaluation Section

FROM: LuAnn Taylor *LT*
Environmental Engineer
Air Quality Evaluation Section

SUBJECT: Columbia Nitrogen Corporation; Augusta, Ga.

AIR PROTECTION BRANCH

2
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Source tests for compliance determination have been completed at Columbia Nitrogen Corporation in Augusta, Georgia. The particulate emissions tests were performed by Technical Services, Inc. on December 7, 1979 and January 16, 1980. The low density ~~ammonium nitrate~~ operation was retested to establish compliance at an increased load (955 TPD) as agreed upon by the source and EPD. Those sources tested were:

- Prill Tower - Outside Stacks
- Brinks Scrubber Inner Stacks
- Small Cooler
- Precooler
- Dryer

The results are summarized and enclosed.

The test procedures used are acceptable to this office. The results indicate compliance of the source with existing emission standards. The following should be noted, however, with regard to the validity of the test results. The LD-AN plant was tested twice during December 1979. Both of these tests showed noncompliance of the source (105% of allowable emission rate). The

Mr. Lowry
Page 2
March 6, 1980

dryer and both coolers were retested for the third time on January 16, 1980. These results, as well as the results from the December 7 prill tower test are what the source is claiming to base its compliance status on. Since the process input rate was the same during both test periods and prill tower operation can be considered independently, it is felt that these tests adequately demonstrate compliance of the facility.

The reports will be kept on file for future reference.

LT:lb

Attachments: Report Review Summaries (4)

cc: Mr. William D. Estes
Mr. Michael E. Fogle

REPORT REVIEW SUMMARY

SM-23(1)
Rev.(4)8/79

NAME OF COMPANY: Columbia Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: February 26, 1980
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA				
SOURCE TESTED:	Low Density AN - Dryer			
DATE(S) OF TESTS:	January 16, 1980			
POLLUTANT(S) DETERMINED:	Particulate			
CONTROL METHOD(S):	Scrubber			
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 TPD			
TEST DATA				
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	92	99	102	---
STACK MOISTURE (%):	3.8	2.8	2.8	---
STACK FLOW RATE (ACFM):	53,433	54,929	53,147	---
STACK FLOW RATE (DSCFM):	49,514	50,767	48,858	49,713
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0076	0.0072	0.0024	0.0057
EMISSION RATE: (lb./hr.)	3.24	3.14	1.02	*13.07
OPERATING CAPACITY:	955 TPD			
OPACITY:	N/A			
PERCENT OF ALLOWABLE:	30.7			
ALLOWABLE EMISSION RATE:	42.48 lb./hr.			

OTHER INFORMATION: As per Georgia Regulations: 391-3-1-.02(2)(e)
*Sum of emissions from prill tower, dryer, both coolers.

Test Procedures Acceptable Test Procedures Not Acceptable
 (Reasons for non-acceptability explained in narrative)

REPORT REVIEW SUMMARY

SM-23(1)
Rev.(4)8/79

NAME OF COMPANY: Columbia Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: February 26, 1980
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA				
SOURCE TESTED:	Low Density AN - Precooler <i>to 2-10, 2-11</i>			
DATE(S) OF TESTS:	January 16, 1980			
POLLUTANT(S) DETERMINED:	Particulate			
CONTROL METHOD(S):	Scrubber			
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 TPD			
TEST DATA				
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	83	90	90	---
STACK MOISTURE (%):	3.8	3.8	4.0	---
STACK FLOW RATE (ACFM):	75,594	78,414	86,250	---
STACK FLOW RATE (DSCFM):	71,146	72,901	80,019	76,689
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0054	0.0057	0.0085	0.0065
EMISSION RATE: (lb./hr.)	3.32	3.52	5.75	*13.07
OPERATING CAPACITY:	955 TPD			
OPACITY:	N/A			
PERCENT OF ALLOWABLE:	30.7			
ALLOWABLE EMISSION RATE:	42.48 lb./hr.			

OTHER INFORMATION: As per Georgia Regulations: 391-3-1-.02(2)(e)

**Sum of emissions from prill tower, dryer, both coolers.*

Test Procedures Acceptable Test Procedures Not Acceptable []

(Reasons for non-acceptability explained in narrative)

REPORT REVIEW SUMMARY

Rev. (4)8/79

NAME OF COMPANY: Columbia Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: February 26, 1980
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA				
SOURCE TESTED:	Low Density AN - Small Cooler - <i>Handwritten mark</i>			
DATE(S) OF TESTS:	January 16, 1980			
POLLUTANT(S) DETERMINED:	Particulate			
CONTROL METHOD(S):	Scrubber			
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 TPD			
TEST DATA				
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	86	90	94	---
STACK MOISTURE (%):	1.5	1.2	1.6	---
STACK FLOW RATE (ACFM):	17,587	18,254	17,857	---
STACK FLOW RATE (DSCFM):	16,880	17,429	16,858	
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0151	0.0090	0.0045	
EMISSION RATE: (lb./hr.)	2.18	1.35	0.65	*13.07
OPERATING CAPACITY:	955 TPD			
OPACITY:	N/A			
PERCENT OF ALLOWABLE:	30.7			
ALLOWABLE EMISSION RATE:	42.48 lb./hr.			

OTHER INFORMATION: As per Georgia Regulations: 391-3-1-.02(2)(e)

**Sum of emissions from prill tower, dryer, both coolers.*

Test Procedures Acceptable Test Procedures Not Acceptable

(Reasons for non-acceptability explained in narrative)

REPORT REVIEW SUMMARY

Rev. (4)8/79

NAME OF COMPANY: Columbia Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: February 26, 1980
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA				
SOURCE TESTED:	Low Density AN Prill Tower (Inside & Outside Stacks)			
DATE(S) OF TESTS:	December 7, 1979			
POLLUTANT(S) DETERMINED:	Particulate			
CONTROL METHOD(S):	Brinks Scrubber / Mist Eliminator			
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 TPD			
TEST DATA				
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	67 73	73 78	71 79	---
STACK MOISTURE (%):	1.4 1.1	1.4 0.9	1.8 0.6	---
STACK FLOW RATE (ACFM):	65,709 77,886	64,821 78,835	65,603 82,225	---
STACK FLOW RATE (DSCFM):	64,027 76,338	63,293 76,725	64,037 80,037	63,786 77,700
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0019 0.0044	0.0026 0.0119	0.0017 0.0014	0.0021 0.0059
EMISSION RATE: (lb./hr.)	Inside: 1.04 Outside: 2.87	1.43 7.78	0.91 0.99	*13.07
OPERATING CAPACITY:	955 TPD			
OPACITY:	N/A			
PERCENT OF ALLOWABLE:	30.7			
ALLOWABLE EMISSION RATE:	42.48 lb./hr.			

OTHER INFORMATION: As per Georgia Regulations: 391-3-1-.02(2)(e)

*Sum of emissions from prill tower dryers, both coolers.

Test Procedures Acceptable [xx]

Test Procedures Not Acceptable []

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(Reasons for non-acceptability explained in narrative)

M E M O R A N D U M

TO: Mr. Marvin M. Lowry
Section Chief
Air Quality Control Section

THROUGH: Michael E. Fogle *mf*
Unit Coordinator
Air Quality Evaluation Section

FROM: LuAnn Taylor *ls*
Environmental Engineer
Air Quality Evaluation Section

SUBJECT: Columbia-Nitrogen Corporation; Augusta, Ga.

Source testing for compliance determination has been completed at Columbia-Nitrogen Corporation in Augusta, Georgia. The tests for particulate emissions were performed by Technical Services, Inc. during June 19-25, 1979. The sources tested were:

Urea Prill Tower

Low-Density Ammonium Nitrate Operation -

Prill Tower
Cooler
Precooler
Dryer

High-Density Ammonium Nitrate Operation -

Prill Tower
Cooler
Precooler

The allowable emission rates were calculated incorrectly and the corrected values are reported on the enclosed summary of results.

The test procedures used can be considered acceptable to this office, and the results can be taken as a valid indication of the emission rates of the sources

AN AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER

Mr. Lowry
Page 2
October 2, 1979

at the tested operating conditions. The test results from the Urea Prill Tower and High-Density Ammonium Nitrate sources indicate that both were operating within their allowable limits during testing. The Low-Density Ammonium Nitrate source was operating in excess of its allowable emission rate during testing (148%).

When the LD-AN source is retested in order to prove compliance, the sampling location for the precooler stack should be modified in order to eliminate any possibility of negative velocities.

The report will be kept on file in this office for future reference.

LT:lb

Attachments: Report Review Summaries (8)

cc: Mr. William D. Estes ✓
Mr. Michael E. Fogle

NAME OF COMPANY: Columbia-Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: Not included
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

		SOURCE DATA			
SOURCE TESTED:		Low Density A.N.-Prill Tower (Inside and Outside Stacks)			
DATE(S) OF TESTS:		June 25, 1979			
POLLUTANT(S) DETERMINED:		Particulate			
CONTROL METHOD(S):		Scrubber			
MAXIMUM EXPECTED OPERATING CAPACITY:		1100 tons/day			
		TEST DATA			
TEST RUN:		Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):		110 82	113 84	113 86	—
STACK MOISTURE (%):		3.6 1.4	3.5 1.6	3.4 1.5	—
STACK FLOW RATE (ACFM):		69,663 257,720	66,729 261,365	64,864 256,493	—
STACK FLOW RATE (DSCFM):		62,124 247,217	59,257 249,285	57,661 243,990	59,681 246,831
POLLUTANT CONCENTRATION (GRAINS/DSCF):		0.0162 0.0061	0.0116 0.0075	0.0151 0.0040	0.0143 0.0059
EMISSION RATE: Inside:		8.62	5.89	7.46	
(lb./hr.) Outside:		12.92	16.02	8.36	59.70*
OPERATING CAPACITY:		750 tons/day			
OPACITY:		Not included			
PERCENT OF ALLOWABLE:		148.1%			
ALLOWABLE EMISSION RATE:		40.31 lb./hr.			

OTHER INFORMATION: As per Georgia Rules & Regulations: 391-3-1-.02(2)e

*Based on emissions from prill tower, dryer and both coolers.

Test Procedures Acceptable Test Procedures Not Acceptable

(Reasons for non-acceptability explained in narrative)

NAME OF COMPANY: Columbia-Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: Not included
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA				
SOURCE TESTED:	Low Density A.N.-Precooler			
DATE(S) OF TESTS:	June 23, 1979			
POLLUTANT(S) DETERMINED:	Particulate			
CONTROL METHOD(S):	Scrubber			
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 tons/day			
TEST DATA				
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	98	99	98	—
STACK MOISTURE (%):	4.3	3.5	3.3	—
STACK FLOW RATE (ACFM):	76,602	76,996	82,818	—
STACK FLOW RATE (DSCFM):	69,367	70,181	75,779	71,776
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0225	0.0405	0.0399	0.0343
EMISSION RATE: (lb./hr.)	13.38	24.36	25.91	59.70*
OPERATING CAPACITY:	750 tons/day			
OPACITY:	Not included			
PERCENT OF ALLOWABLE:	148.1%			
ALLOWABLE EMISSION RATE:	40.31 lb./hr.			

OTHER INFORMATION: As per Georgia Rules & Regulations: 391-3-1-.02(2)e

*Based on emissions from prill tower, dryer and both coolers.

Test Procedures Acceptable

Test Procedures Not Acceptable

(Reasons for non-acceptability explained in narrative)

NAME OF COMPANY: Columbia-Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: Not included
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA				
SOURCE TESTED:	Low Density A.N.-Small Cooler			
DATE(S) OF TESTS:	June 23, 1979			
POLLUTANT(S) DETERMINED:	Particulate			
CONTROL METHOD(S):	Scrubber			
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 tons/day			
TEST DATA				
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	114	112	114	—
STACK MOISTURE (%):	2.6	2.3	1.3	—
STACK FLOW RATE (ACFM):	37,867	34,703	33,856	—
STACK FLOW RATE (DSCFM):	33,927	31,296	30,737	31,653
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0297	0.0174	0.0402	0.0291
EMISSION RATE: (lb./hr.)	8.64	4.67	10.59	59.70*
OPERATING CAPACITY:	750 tons/day			
OPACITY:	Not included.			
PERCENT OF ALLOWABLE:	148.1%			
ALLOWABLE EMISSION RATE:	40.31 lb./hr.			

OTHER INFORMATION: As per Georgia Rules & Regulations: 391-3-1-.02(2)e
*Based on emissions from prill tower, dryer and both coolers.

Test Procedures Acceptable Test Procedures Not Acceptable

(Reasons for non-acceptability explained in narrative)

REPORT REVIEW SUMMARY

Rev. (4)8,

NAME OF COMPANY: Columbia-Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: Not included
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA				
SOURCE TESTED:	Low Density A.N.-Dryer			
DATE(S) OF TESTS:	June 23, 1979			
POLLUTANT(S) DETERMINED:	Particulate			
CONTROL METHOD(S):	Scrubber			
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 tons/day			
TEST DATA				
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	104	103	104	—
STACK MOISTURE (%):	4.7	5.1	4.4	—
STACK FLOW RATE (ACFM):	66,088	64,544	63,918	—
STACK FLOW RATE (DSCFM):	58,962	57,445	57,205	57,871
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0136	0.0115	0.0402	0.0218
EMISSION RATE: (lb./hr.)	6.87	5.66	19.71	59.70*
OPERATING CAPACITY:	750 tons/day			
OPACITY:	Not included.			
PERCENT OF ALLOWABLE:	148.1%			
ALLOWABLE EMISSION RATE:	40.31 lb./hr.			

OTHER INFORMATION: As per Georgia Rules & Regulations: 391-3-1-.02(2)e

*Based on emissions from prill tower, dryer and both coolers.

Test Procedures Acceptable Test Procedures Not Acceptable

(Reasons for non-acceptability explained in narrative)

NAME OF COMPANY: Columbua-Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: Not included
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA

SOURCE TESTED: Ammonium Nitrate Prill Tower-High Density
 DATE(S) OF TESTS: June 21, 1979
 POLLUTANT(S) DETERMINED: Particulate
 CONTROL METHOD(S): Brinks Scrubber
 MAXIMUM EXPECTED OPERATING CAPACITY: 1100 tons/day

TEST DATA

TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	102	103	106	—
STACK MOISTURE (%):	4.8	6.1	4.9	—
STACK FLOW RATE (ACFM):	71,365	71,202	67,265	—
STACK FLOW RATE (DSCFM):	63,999	62,870	59,834	62,234
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0042	0.0034	0.0054	0.0130
EMISSION RATE: (lb./hr.)	2.31	1.83	2.76	22.66*
OPERATING CAPACITY:	800 tons/day			
OPACITY:	Not included			
PERCENT OF ALLOWABLE:	55.4%			
ALLOWABLE EMISSION RATE:	40.88 lb./hr.			

OTHER INFORMATION: As per Georgia Rules & Regulations: 391-3-1-.02(2)(e)

*Based on sum of emissions from prill tower, and both cooler stacks.

Test Procedures Acceptable Test Procedures Not Acceptable

(Reasons for non-acceptability explained in narrative)

NAME OF COMPANY: Columbia-Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: Not included
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

	SOURCE DATA
SOURCE TESTED:	Precooler-High Density A.N. - <i>Controlled</i>
DATE(S) OF TESTS:	June 23, 1979
POLLUTANT(S) DETERMINED:	Particulate
CONTROL METHOD(S):	Scrubber
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 tons/day

	TEST DATA			
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	90	94	98	—
STACK MOISTURE (%):	5.1	4.3	4.9	—
STACK FLOW RATE (ACFM):	82,577	93,217	84,080	—
STACK FLOW RATE (DSCFM):	75,382	85,079	75,661	78,707
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0063	0.0230	0.0180	0.0158
EMISSION RATE: (lb./hr.)	4.07	16.77 <i>10.84</i>	11.67	22.66*
OPERATING CAPACITY:	800 tons/day			
OPACITY:	Not included			
PERCENT OF ALLOWABLE:	55.4%			
ALLOWABLE EMISSION RATE:	40.88 lb./hr.			

OTHER INFORMATION: As per Georgia Rules & Regulations: 391-3-1-.02(2)e
 *Based on a sum of emissions from prill tower and both cooler stacks.

Test Procedures Acceptable Test Procedures Not Acceptable
 (Reasons for non-acceptability explained in narrative)

NAME OF COMPANY: Columbia-Nitrogen Corporation
 LOCATION: Augusta, Georgia
 DATE REPORT ISSUED: Not included
 NAME OF SAMPLING FIRM: Technical Services, Inc.
 REPORT REVIEWED BY: LuAnn Taylor

SOURCE DATA				
SOURCE TESTED:	Small Cooler-High Density A.N.			
DATE(S) OF TESTS:	June 22, 1979			
POLLUTANT(S) DETERMINED:	Particulate			
CONTROL METHOD(S):	Scrubber			
MAXIMUM EXPECTED OPERATING CAPACITY:	1100 tons/day			
TEST DATA				
TEST RUN:	Run #1	Run #2	Run #3	AVERAGE
STACK TEMPERATURE (°F):	119	123	112	—
STACK MOISTURE (%):	2.5	2.9	2.8	—
STACK FLOW RATE (ACFM):	35,655	37,536	37,298	—
STACK FLOW RATE (DSCFM):	31,765	33,031	33,465	32,754
POLLUTANT CONCENTRATION (GRAINS/DSCF):	0.0326	0.0409	0.0282	0.0339
EMISSION RATE: (lb./hr.)	8.88	11.58	8.09	22.66*
OPERATING CAPACITY:	800 tons/day			
OPACITY:	Not included			
PERCENT OF ALLOWABLE:	55.4%			
ALLOWABLE EMISSION RATE:	40.88 lb./hr.			

OTHER INFORMATION: As per Georgia Rules & Regulations: 391-3-1-.02(2)e
 *Based on a sum of emissions from prill tower and both cooler stacks.

Test Procedures Acceptable Test Procedures Not Acceptable
 (Reasons for non-acceptability explained in narrative)