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.

Background Report Reference

AP-42 Section Number: 11.6

Background Chapter: 4

Reference Number: 33

Title: Stack Sampling at General Portland Cement, Trinity Division, Fort Worth, TX

Texas Air Control Board

Texas Air Control Board

January 1977

AP-42 Section 11.6
Reference NOT USED
Report Sect. 4
Reference 33

FEB 15 2

RECEIVED
APR 15 1977
REGION 8
AIR POLLUTION CONTROL

STACK SAMPLING

AT

GENERAL PORTLAND CEMENT

TRINITY DIVISION

FORT WORTH, TEXAS

ON

DECEMBER 2-3, 1976

ACCOUNT NUMBER 113-967-3

JANUARY 20, 1977

PREPARED BY THE STAFF OF THE

TEXAS AIR CONTROL BOARD

QUALITY ASSURANCE
EVALUATION

The attached report has been evaluated in terms of adherence to standard procedures, practices defensible by sound engineering logic and compliance with established Quality Assurance policies.

As a result of this evaluation, this report is classified as a stack sample and the following discrepancies are noted as a matter of record:

NONE

General Portland Cement, Trinity Division
Plant

Fort Worth, Texas
Location

December 2-3, 1976
Date of Sampling

January 20, 1977
Date

James B. Draper
James B. Draper
Quality Assurance
Source Evaluation

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Introduction

On December 2-3, 1976, the number one and two kiln stack at General Portland Cement, Trinity Division, Fort Worth, Texas, was sampled by the staff of the Texas Air Control Board to determine compliance status with Texas Air Control Board Rule 105.1 which concerns particulate. Sulfur dioxide was also detected and the pollutant mass rate of sulfur dioxide has been hand calculated. There are no Texas Air Control Board Regulations for sulfur dioxide emissions from cement kilns. Sulfuric acid, from sulfur trioxide, was detected and has been checked for compliance with Rule 204.

Byron C. Bailey, Jr., P. E., was in charge of the stack sampling operation. He was assisted by Frank DeVooght, Manny Pointer and Billy T. Chafin, P. E.

Conclusion

This source was not in violation of Rule 105.1. Average particulate pollutant mass rate was 108.2 pounds/hour while average particulate allowable emission rate was 173.8 pounds/hour.

This source was not in violation of Rule 204. Average sulfuric acid pollutant mass rate was 18.3 pounds/hour while average sulfuric acid allowable emission rate was 293.9 pounds/hour.

The average pollutant mass rate of sulfur dioxide was 756.3 pounds/hour. This value has been hand calculated, and does not appear in the computer printout.

Multiple Sources

The average allowable particulate emission rate shown above, and the allowable particulate emission rates shown on the summary of results page have been calculated for multiple sources with each kiln supplying 50% of the effluent. Allowable emission rate of sulfuric acid is not a direct function of effluent flow rate and therefore multiple sources have not been considered in calculating this allowable emission rate.

Plant Operational Status

As shown on the plant operational status form, page 20, this source was operating at 95% of its maximum capacity which was also 95% of its normal capacity.

SUMMARY OF RESULTS

Particulate

Average Percent Water 27.1 %

Average Velocity 63.0 ft/sec

Account Number 113-967-3 Emission Point Number 1

	Sample One	Sample Two	Sample Four	Sample Five	Average Value
Time Date	VOIDED SAMPLES ONE AND THREE DUE TO DIFFICULTIES IN THE FIELD	1329-1605 2 Dec 76	1345-1531 3 Dec 76	1622-1823 3 Dec 76	
Total Gas Emission Rate (ACFM)		359,000	362,000	357,000	359,000
Effective Stack Height (ft.)		342	343	340	342
Standard Effective Stack Height (ft.)		92.3	92.6	92.2	92.4
Particulate Allowable Emission Rate* (lb/hr) Rule 105.1		173.7	174.5	173.2	173.8
Particulate Pollutant Mass Rate (lb/hr)		71.3	115.2	138.2	108.2
Percent Isokinetic		104.2	101.9	97.2	101.1

* Hand calculated, based on two equal sources.

SUMMARY OF RESULTS

Sulfur Dioxide

Average Percent Water 27.1 %

Average Velocity 63.0 ft/sec

Account Number 113-967-3 Emission Point Number 1

	Sample One	Sample Two	Sample Four	Sample Five	Average Value
Time Date	VOIDED SAMPLES ONE AND THREE DUE TO DIFFICULTIES IN THE FIELD	1329-1605 2 Dec 76	1345-1531 3 Dec 76	1622-1823 3 Dec 76	
Total Gas Emission Rate (SCFM)		223,000	223,000	220,000	222,000
Effective Stack Height (ft.)		342	343	340	342
Standard Effective Stack Height (ft.)			DOES NOT APPLY		
Sulfur Dioxide Allowable Emission Rate (lb/hr) Rule			DOES NOT APPLY		
Sulfur Dioxide Pollutant Mass Rate* (lb/hr)		838.0	800.0	631.1	756.3
Percent of Allowable			DOES NOT APPLY		

* Hand calculated values.

SUMMARY OF SULFURIC ACID SAMPLING

Account Number 113-967-3 Emission Point Number 1

	Sample One	Sample Two	Sample Four	Sample Five	Average Value
Time Date		1329-1605 2 Dec 76	1345-1531 3 Dec 76	1622-1823 3 Dec 76	
Sulfuric Acid Pollutant Mass Rate in pounds/hour		16.4	11.3	27.2	18.3
Allowable Sulfuric Acid Emission Rate in pounds/hrs Rule 204		294.0	295.7	291.9	293.9

INPUT DATA

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO TWO DATE DEC 2 1976 TIME 1329 TO 1605

NOZ.AREA: .0001432 SQFT PITOT CALIB. FACTOR: .8390

TRAV. DURATION 144.0 MIN. VOL. DRY GAS METER: 37.09 CUFT

STACK: DIA.EXIT 11.00 FT, PORT 11.00 FT, HEIGHT 74.0 FT

ORSAT ANALYSIS: CO2 .155, O2 .099, CO .000, N2 .746, DGMCF= .9998

TEMP IN DEG F: DRY GAS METER AVER. 77.10, STACK AVER. 386.30

MASS IN GRAMS: TOTAL IMP. GAIN 297.50 TOTAL PARTICULATE .1218

PARTICULATE IN IMP. .0078, SO2 1.4319, H2S .0000,

H2SO4 .0000, FLUORIDE IONS .0000, SO3 .0225, CL2 .0000

PRESS: ATMOS 29.70 IN.HG, STACK -.550 IN.H2O, AV.DELTA H .254 IN.H2O

PITOT TUBE DELTA P'S IN IN.H2O:

.700	.750	.850	.900	1.000	1.100	1.100	1.200
1.200	1.200	.950	.700	.600	.450	.400	.400
.350	.400	.400	.400	.380	.400	.380	.250
.600	.550	.550	.600	.600	.600	.650	.850
.750	.700	.600	.400	.800	.800	.900	1.000
1.100	1.200	1.300	1.300	1.400	1.300	1.100	.850

RULE 107 PROCESS WEIGHT RATE .0 POUNDS PER HOUR

RULE 105.3 & 201.5 HEAT INPUT .0 MILLION BTU PER HOUR

RULES SELECTED 105.1

EXCESS AIR FLAG OFF PARTICAL SIZE FLAG SMALL

ACFM (UNCORRECTED FOR EXCESS AIR) WAS GREATER THAN (OR EQUAL TO) 100.000 CFM: SEE RULE 103.6

CALCULATION RESULTS

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO TWO DATE DEC 2 1976 TIME 1329 TO 1605

27.79 % H2O BW2 .000 NOZ.VOL. 81.123 CUFT FACF 1.000

AV.VEL.PORT 62.941 FT PER SEC M.WT. 27.31 EF.STK.HT. 341.7 FT

ACFM 358890.5 SCFM 222800.6 (NO EXCESS AIR CORRECTION)

RULE 105.1

53.4 % OF ALLOWABLE ALLO. 104.2 STD.EF.STK.HT. 92.3 FT

EMISS.RATES.LBS/HR: ALLOWABLE 133.4. POLL.MASS 71.3

INPUT DATA

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO FOUR DATE DEC 3 1976 TIME 1345 TO 1531

NOZ.AREA: .0001766 SQFT PITOT CALIB. FACTOR: .8390

TRAV. DURATION 96.0 MIN. VOL. DRY GAS METER: 29.37 CUFT

STACK: DIA.EXIT 11.00 FT. PORT 11.00 FT. HEIGHT 74.0 FT

ORSAT ANALYSIS: CO2 .146, O2 .106, CO .000, N2 .748, DGMCF= .9998

TEMP IN DEG F: DRY GAS METER AVER. 78.90, STACK AVER. 385.00

MASS IN GRAMS: TOTAL IMP. GAIN 255.20 TOTAL PARTICULATE .1582

PARTICULATE IN IMP. .0031, SO2 1.0988, H2S .0000,

H2SO4 .0000, FLUORIDE IONS .0000, SO3 .0126, CL2 .0000

PRESS: ATMOS 29.43 IN.HG, STACK -.800 IN.H2O, AV.DELTA H .355 IN.H2O

PITOT TUBE DELTA P'S IN IN.H2O:

.500	.800	.900	.950	.950	1.000	1.200	1.100
1.200	1.200	.800	.350	.600	.500	.400	.400
.350	.400	.400	.400	.400	.430	.300	.300
.700	.700	.600	.600	.750	.650	.650	.800
.800	.800	.600	.450	.600	.850	.900	.980
1.150	1.150	1.300	1.300	1.350	1.350	1.150	.770

RULE 107 PROCESS WEIGHT RATE .0 POUNDS PER HOUR

RULE 105.3 & 201.5 HEAT INPUT .0 MILLION BTU PER HOUR

RULES SELECTED 105.1

EXCESS AIR FLAG OFF PARTICAL SIZE FLAG SMALL

ACFM (UNCORRECTED FOR EXCESS AIR) WAS GREATER THAN (OR EQUAL TO) 100,000 CFM: SEE RULE 103.6

CALCULATION RESULTS

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO FOUR DATE DEC 3 1976 TIME 1345 TO 1531

29.69 % H2O BW2 .000 NOZ.VOL. 65.710 CUFT EACF 1.000

AV.VEL.PORT 63.420 FT PER SEC M.WT. 26.98 EF.STK.HT. 343.2 FT

ACFM 361617.4 SCFM 222652.7 (NO EXCESS AIR CORRECTION)

RULE 105.1
85.9 % OF ALLOWABLE %ISO. 101.9 STD.EF.STK.HT. 92.6 FT
EMISS.RATES.LBS/HR: ALLOWABLE 134.1, POLL.MASS 115.2

INPUT DATA

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO FIVE DATE DEC 3 1976 TIME 1622 TO 1823

NOZ.AREA: .0001766 SQFT PITOT CALIB. FACTOR: .8390

TRAV. DURATION 96.0 MIN. VOL. DRY GAS METER: 29.92 CUFT

STACK: DIA.EXIT 11.00 FT, PORT 11.00 FT, HEIGHT 74.0 FT

ORSAT ANALYSIS: CO2 .135, O2 .107, CO .000, N2 .758, DGMCF= .9980

TEMP IN DEG F: DRY GAS METER AVER. 75.50, STACK AVER. 384.60

MASS IN GRAMS: TOTAL IMP. GAIN 193.20 TOTAL PARTICULATE .1812

PARTICULATE IN IMP. .0071, SO2 .8272, H2S .0000,

H2SO4 .0000, FLUORIDE IONS .0000, SO3 .0296, CL2 .0000

PRESS: ATMOS 29.40 IN.HG, STACK -.750 IN.H2O, AV.DELTA H .353 IN.H2O

PITOT TUBE DELTA P'S IN IN.H2O:

.750	.800	.850	.950	1.050	1.050	1.250	1.400
1.350	1.450	1.200	.850	.750	.600	.550	.600
.630	.660	.780	.750	.800	.750	.650	.400
.600	.450	.400	.400	.380	.380	.400	.400
.450	.400	.380	.250	.700	.600	.650	.900
1.050	1.000	1.050	1.050	1.100	1.250	.900	.650

RULE 107 PROCESS WEIGHT RATE .0 POUNDS PER HOUR

RULE 105.3 & 201.5 HEAT INPUT .0 MILLION BTU PER HOUR

RULES SELECTED 105.1

EXCESS AIR FLAG OFF PARTICAL SIZE FLAG SMALL

ACFM (UNCORRECTED FOR EXCESS AIR) WAS GREATER THAN (OR EQUAL TO) 100,000 CFM: SEE RULE 103.6

CALCULATION RESULTS

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO FIVE DATE DEC 3 1976 TIME 1622 TO 1823

23.86 % H2O BW2 .000 NOZ.VOL. 61.931 CUFT EACF 1.000

AV.VEL.PORT 62.644 FT PER SEC M.WT. 27.59 EF.STK.HT. 339.7 FT

ACFM 357193.7 SCFM 219835.9 (NO EXCESS AIR CORRECTION)

RULE 105.1
103.9 % OF ALLOWABLE %ISO. 97.2 STD.EF.STK.HT. 92.2 FT
EMISS.RATES.LBS/HR: ALLOWABLE 133.1, POLL.MASS 138.2
THIS STACK WAS IN VIOLATION OF RULE 105.1

AVERAGE RESULTS

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

27.11 % H2O BW2 .000 NOZ.VOL. 69.588 CUFT FACF 1.000

AV.VEL.PORT 63.001 FT PER SEC M.WT. 27.29 EF.STK.HT. 341.5 FT

ACFM 359233.8 SCFM 221763.1 (NO EXCESS AIR CORRECTION)

RULE 105.1
81.1 % OF ALLOWABLE %ISO. 101.1 STD.EF.STK.HT. 92.4 FT
EMISS.RATES.LBS/HR: ALLOWABLE 133.5, POLL.MASS 108.2
PERCENT OF ALLOWABLE FROM AVERAGE RESULTS: 81.0

INPUT DATA

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO TWO DATE DEC 2 1976 TIME 1329 TO 1605

NOZ.AREA: .0001432 SQFT PITOT CALIB. FACTOR: .8390

TRAV. DURATION 144.0 MIN. VOL. DRY GAS METER: 37.09 CUFT

STACK: DIA.EXIT 11.00 FT, PORT 11.00 FT, HEIGHT 74.0 FT

ORSAT ANALYSIS: CO2 .155, O2 .099, CO .000, N2 .746, DGMCF= .9998

TEMP. IN DEG F: DRY GAS METER AVER. 77.10, STACK AVER. 386.30

MASS IN GRAMS: TOTAL IMP. GAIN 297.50 TOTAL PARTICULATE .1218

PARTICULATE IN IMP. .0078, SO2 1.4319, H2S .0000,

H2SO4 .0275, FLUORIDE IONS .0000, SO3 .0225, CL2 .0000

PRESS: ATMOS 29.70 IN.HG, STACK -.550 IN.H2O, AV.DELTA H .254 IN.H2O

PITOT TUBE DELTA P'S IN IN.H2O:

.700	.750	.850	.900	1.000	1.100	1.100	1.200
1.200	1.200	.950	.700	.600	.450	.400	.400
.350	.400	.400	.400	.380	.400	.380	.250
.600	.550	.550	.600	.600	.600	.650	.850
.750	.700	.600	.400	.800	.800	.900	1.000
1.100	1.200	1.300	1.300	1.400	1.300	1.100	.850

RULE 107 PROCESS WEIGHT RATE .0 POUNDS PER HOUR

RULE 105.3 & 201.5 HEAT INPUT .0 MILLION BTU PER HOUR

RULES SELECTED 204

EXCESS AIR FLAG OFF PARTICAL SIZE FLAG SMALL

ACFM (UNCORRECTED FOR EXCESS AIR) WAS GREATER THAN (OR EQUAL TO) 100,000 CFM: SEE RULE 103.6

CALCULATION RESULTS

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO TWO DATE DEC 2 1976 TIME 1329 TO 1605

27.79 % H2O BW2 .000 NOZ.VOL. 81.123 CUFT EACF 1.000

AV.VEL.PORT 62.941 FT PER SEC M.WT. 27.31 EF.STK.HT. 341.7 FT

ACFM 358890.5 SCFM 222800.6 (NO EXCESS AIR CORRECTION)

RULE 204

5.6 % OF ALLOWABLE %ISO. 104.2

EMISS.RATES.LBS/HR: ALLOWABLE 294.0. POLL.MASS 16.4

INPUT DATA

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO FOUR DATE DEC 3 1976 TIME 1345 TO 1531

NOZ.AREA: .0001766 SQFT PITOT CALIB. FACTOR: .8390

TRAV. DURATION 96.0 MIN. VOL. DRY GAS METER: 29.37 CUFT

STACK: DIA.EXIT 11.00 FT, PORT 11.00 FT, HEIGHT 74.0 FT

ORSAT ANALYSIS: CO2 .146, O2 .106, CO .000, N2 .748, DGMCF= .9998

TEMP IN DEG F: DRY GAS METER AVER. 78.90, STACK AVER. 385.00

MASS IN GRAMS: TOTAL IMP. GAIN 255.20 TOTAL PARTICULATE .1582

PARTICULATE IN IMP. .0031, SO2 1.0988, H2S .0000,

H2SO4 .0154, FLUORIDE IONS .0000, SO3 .0126, CL2 .0000

PRESS: ATMOS 29.43 IN.HG, STACK -.800 IN.H2O, AV.DELTA H .355 IN.H2O

PITOT TUBE DELTA P'S IN IN.H2O:

.500	.800	.900	.950	.950	1.000	1.200	1.100
1.200	1.200	.800	.350	.600	.500	.400	.400
.350	.400	.400	.400	.400	.430	.300	.300
.700	.700	.600	.600	.750	.650	.650	.800
.800	.800	.600	.450	.600	.850	.900	.980
1.150	1.150	1.300	1.300	1.350	1.350	1.150	.770

RULE 107 PROCESS WEIGHT RATE .0 POUNDS PER HOUR

RULE 105.3 & 201.5 HEAT INPUT .0 MILLION BTU PER HOUR

RULES SELECTED 204

EXCESS AIR FLAG OFF PARTICAL SIZE FLAG SMALL

ACFM (UNCORRECTED FOR EXCESS AIR) WAS GREATER THAN (OR EQUAL TO) 100.000 CFM: SEE RULE 103.6

CALCULATION RESULTS

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO FOUR DATE DEC 3 1976 TIME 1345 TO 1531

29.69 % H2O BW2 .000 NOZ.VOL. 65.710 CUFT EACF 1.000

AV.VEL.PORT 63.420 FT PER SEC M.WT. 26.98 EF.STK.HT. 343.2 FT

ACFM 361617.4 SCFM 222652.7 (NO EXCESS AIR CORRECTION)

RULE 204
3.8 % OF ALLOWABLE %ISO. 101.9
EMISS.RATES.LBS/HR: ALLOWABLE 295.7, POLL.MASS 11.3

INPUT DATA

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO FIVE DATE DEC 3 1976 TIME 1622 TO 1823

NOZ.AREA: .0001766 SQFT PITOT CALIB. FACTOR: .8390

TRAV. DURATION 96.0 MIN. VOL. DRY GAS METER: 29.92 CUFT

STACK: DIA.EXIT 11.00 FT, PORT 11.00 FT, HEIGHT 74.0 FT

ORSAT ANALYSIS: CO2 .135, O2 .107, CO .000, N2 .758, DGMCF= .9980

TEMP IN DEG F: DRY GAS METER AVER. 76.50, STACK AVER. 384.60

MASS IN GRAMS: TOTAL IMP. GAIN 193.20 TOTAL PARTICULATE .1812

PARTICULATE IN IMP. .0071, SO2 .8272, H2S .0000,

H2SO4 .0362, FLUORIDE IONS .0000, SO3 .0296, CL2 .0000

PRESS: ATMOS 29.40 IN.HG, STACK -.750 IN.H2O, AV.DELTA H .353 IN.H2O

PITOT TUBE DELTA P'S IN IN.H2O:

.750	.800	.850	.950	1.050	1.050	1.250	1.400
1.350	1.350	1.200	.850	.750	.600	.550	.600
.630	.660	.780	.750	.800	.750	.650	.400
.600	.450	.400	.400	.380	.380	.400	.400
.450	.400	.380	.250	.700	.600	.650	.900
1.050	1.000	1.050	1.050	1.100	1.250	.900	.650

RULE 107 PROCESS WEIGHT RATE .0 POUNDS PER HOUR

RULE 105.3 & 201.5 HEAT INPUT .0 MILLION BTU PER HOUR

RULES SELECTED 204

EXCESS AIR FLAG OFF PARTICAL SIZE FLAG SMALL

ACFM (UNCORRECTED FOR EXCESS AIR) WAS GREATER THAN (OR EQUAL TO) 100,000 CFM: SEE RULE 103.6

CALCULATION RESULTS

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

SAMPLE NO FIVE DATE DEC 3 1976 TIME 1622 TO 1823

23.86 % H2O BW2 .000 NOZ.VOL. 61.931 CUFT EACF 1.000

AV.VEL.PORT 62.644 FT PER SEC M.WT. 27.59 EF.STK.HT. 339.7 FT

ACFM 357193.7 SCFM 219835.9 (NO EXCESS AIR CORRECTION)

RULE 204
9.3 % OF ALLOWABLE %ISO. 97.2
EMISS.RATES.LBS/HR: ALLOWABLE 291.9, POLL.MASS 27.2

9 AVERAGE RESULTS

GENERAL PORTLAND CEMENT TRINITY DIVISION (080020)

CEMENT KILNS 1 AND 2

27.11 % H2O BW2 .000 NOZ.VOL. 69.588 CUFT EACF 1.000

AV.VEL.PORT 63.001 FT PER SEC M.WT. 27.29 EF.STK.HT. 341.5 FT

ACFM 359233.8 SCFM 221763.1 (NO EXCESS AIR CORRECTION)

RULE 204
6.2 % OF ALLOWABLE %ISO. 101.1
EMISS.RATES.LBS/HR: ALLOWABLE 293.9, POLL.MASS 18.3
PERCENT OF ALLOWABLE FROM AVERAGE RESULTS: 6.2

9

TEXAS AIR CONTROL BOARD
Laboratory
8520 Shoal Creek Boulevard
Austin, Texas 78758

REVISED

Sample: General Portland Cement
Trinity Division
Fort Worth

ACL Number: 1710--REVISED

Delivered By: Frank DeVooght

Description: No. 1 & No. 2 Kiln Stack for Particulate, SO_2, SO_3, & H_2SO_4

Date Sampled: 12-2, 3-76

LABORATORY ANALYSIS

Run	Filter g Part.	Impinger 1 g Part.	Impinger 1 g SO_3	Impinger 1 g H_2SO_4	Impinger 2 g SO_2	Impinger 3 g SO_2	Probe Wash g Part.
2	.0448	.0078	.0225	.0275	1.4262	.0057	.0692
3	.0381	ND	.0963	.1180	0.8042	ND	.0891
4	.0467	.0031	.0126	.0154	1.0914	.0074	.1084
5	.0402	.0071	.0296	.0362	0.8192	.0080	.1339

Blanks were subtracted from particulate values above.

ND = none detected.

12-9-76
Date Received

Margaret J. Zimmerman
Analysis Performed By: Margaret J. Zimmerman

MW Revised: 1-14-77
Date Reported

Region VIII Office
Texas Air Control Board
3915-A Highway 377 South
Fort Worth, Texas 76116

PLANT OPERATIONAL STATUS FORM

Sampling Periods

Date 12-3-76 Account Number 113-967-3

Plant Name TRINITY PORTLAND Location FT. WORTH

Stack Name #1 & #2 KILN STACK

Proportional or Isokinetic Sampling

Sample Number	Duration of Sample (Show Start time and Stop time)		Date of Sample
2	From 1329	To 1605	12-2-1976
3.	From 0954	To 1146	12-3-76
4	From 1345	To 1531	12-3-76
5	From 1622	To 1823	12-3-76

Special Conditions None

Signature Byron C Bailey Jr. P.E.

Title ENGINEER III

The above portion is to be completed by the Air Control Board representative. The following portion is to be completed by the plant representative.

Plant Status During Sampling Periods Shown Above

Type of Process Cement Manufacture

Abatement Controls Electrostatic Precipitator

Stack Height 74 ft Stack Exit Diameter 11'-0" ft

Emission Point Number 1

Sample Number	Percent of Maximum Capacity	Percent of Normal Operating Capacity	Special Conditions
2	95%	95%	See Note
3.	95%	95%	None
4	95%	95%	None
5	95%	95%	None

Additional Information Each Kiln furnishes 50% of total flow. On test #2, a water valve on feed end #1 kiln stuck open, but it was fed, test was not affected.

I certify that the above statements are true to the best of my knowledge and belief:

Signature John S. Wittmayer

Title Plt. Engr.

TEXAS AIR CONTROL BOARD
JAN 31 11 13 AM '77

General Portland Cement Company — Trinity Division

January 27, 1977

Mr. Colby F. Jordan
Enforcement Operations Section
Compliance Division
Texas Air Control Board
8520 Shoal Creek Blvd.
Austin, Texas 78758

Subject: Ft. Worth Plant No. 3 Clinker Cooler

Dear Mr. Jordan:

We have now received proposals to furnish and install an emission control system on our No. 3 clinker cooler installation. These proposals are presently being evaluated. It would appear at this time that we will have to ask for revised proposals from a selected group of these vendors. To that end we have scheduled meetings with potential vendors in early February. We anticipate to receive the revised proposals in early March of 1977 and that we will be in a position to award a contract for the engineering portion no later than April 1, 1977, with the contract for the equipment and installation to be awarded no later than May 2, 1977.

From the delivery forecast of the various suppliers, we anticipate a startup of the equipment by approximately year end of 1977. We will submit a final construction schedule together with our next progress report after a principal decision as to the successful bidder has been made. We will not fail to discuss the final selection with you and the City of Ft. Worth Health Department.

Very truly yours,

O G Dagnan

O. G. Dagnan
Plant Manager

OGD:cw
cc: J. A. Schueler - Corp
Melvin Lewis - TACB
Cecil Bradford - TACB
Glen Bradbury - TACB
Frank Finn - Thompson, Knight and Assoc.
John Anderson - TACB

1545 West Mockingbird Lane o Mailing Address: P. O. Box 2698, Dallas, Texas 75221 o (214) 638-4700
Reply to: 3900 Angle Road o P. O. Box 4447 o Fort Worth, Texas 76106 o (817) 624-2119

General Portland Cement Company
Trinity Division

JAN 31 11 13 AM '77
COMPLIANCE DIVISION

January 27, 1977

Mr. Colby F. Jordan
Enforcement Operations Section
Compliance Division
Texas Air Control Board
8520 Shoal Creek Blvd.
Austin, Texas 78758

Subject: Ft. Worth Plant No. 3 Clinker Cooler

Dear Mr. Jordan:

We have now received proposals to furnish and install an emission control system on our No. 3 clinker cooler installation. These proposals are presently being evaluated. It would appear at this time that we will have to ask for revised proposals from a selected group of these vendors. To that end we have scheduled meetings with potential vendors in early February. We anticipate to receive the revised proposals in early March of 1977 and that we will be in a position to award a contract for the engineering portion no later than April 1, 1977, with the contract for the equipment and installation to be awarded no later than May 2, 1977.

From the delivery forecast of the various suppliers, we anticipate a startup of the equipment by approximately year end of 1977. We will submit a final construction schedule together with our next progress report after a principal decision as to the successful bidder has been made. We will not fail to discuss the final selection with you and the City of Ft. Worth Health Department.

Very truly yours,

O. G. Dagnan
Plant Manager

OGD:cw
cc: J. A. Schueler - Corp
Melvin Lewis - TACB
Cecil Bradford - TACB
Glen Bradbury - TACB
Frank Finn - Thompson, Knight and Assoc.
John Anderson - TACB

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