

Report of...

Compliance Emission Testing

Performed for...

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AIR QUALITY DIVISION

POST Consumer Brands Battle Creek, Michigan

On the...

2096 Exhaust

November 15, 2018

050.26

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Grand Rapids, MI

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TABLE OF CONTENTS

	<u>Page</u>
I. Introduction	1
II. Presentation of Results	2
II.1 Table 1 – PM Emission Results	2
III. Discussion of Results	3
IV. Sampling and Analytical Protocol	3-4
IV.1 PM	3
IV.2 Exhaust Gas Parameters	3
IV.3 Sampling Location	4
Figure 1 – Particulate Sampling Train Diagram	5

Appendices

Exhaust Gas Parameters	A
Field Data	B
Process Operation Data	C
Calculations	D
Raw Data	E

I. INTRODUCTION

Network Environmental, Inc. was retained by Post Consumer Brands to perform compliance emission sampling on the exhaust of source 2096 located at their Battle Creek, Michigan facility. The purpose of the study was to meet the testing requirements of Michigan Department of Environmental Quality (MDEQ) – Air Quality Division Renewable Operating Permit MI-ROP-B1548-2015d. The permit has established the following emission limit for this source:

Pollutant	Emission Limit
PM	0.01 Lbs/1000Lbs gas, Dry

The following reference test methods were employed to conduct the sampling:

- PM – U.S. EPA Method 17
- Exhaust Gas Parameters – U.S. EPA Methods 1 through 4

The sampling was performed on November 15, 2018 by R. Scott Cargill and Richard D. Eerdmans of Network Environmental, Inc.. Assisting with the study was Ms. Cathy Sanford of Post Consumer Brands. Ms. Monica Brothers of the Michigan Department of Environmental Quality (MDEQ) – Air Quality Division was present to observe the sampling and source operation.

II. PRESENTATION OF RESULTS

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**II.1 TABLE 1
PM EMISSION RESULTS SUMMARY
2096 EXHAUST
POST CONSUMER BRANDS
BATTLE CREEK, MICHIGAN
NOVEMBER 15, 2018**

Sample	Date	Time	Air Flow Rate DSCFM ⁽¹⁾	Concentration	Emission Rate
				Lbs/1000 Lbs, Dry ⁽²⁾	Lbs/Hr ⁽³⁾
1	11/15/18	8:54-9:56	6,563	0.0057	0.166
2		10:11-11:14	6,522	0.0043	0.127
3		11:35-12:37	6,536	0.0029	0.084
Average			6,540	0.0043	0.125

(1) DSCFM = Dry Standard Cubic Feet Per Minute (STP = 68 °F & 29.92 in. Hg)

(2) Lbs/1000 Lbs, Dry = Pounds of Particulate Per Thousand Pounds of Exhaust Gas on a Dry Basis

(3) Lbs/Hr = Pounds of Particulate Per Hour

III. DISCUSSION OF RESULTS

The results of the emission sampling are summarized in Table 1 (Section II.1). The results are presented as follows:

III.1 PM Emission Results (Table 1)

Table 1 summarizes the PM emission results as follows:

- Sample
- Date
- Time
- Air Flow Rate (DSCFM) – Standard Cubic Feet Per Minute (STP = 68 °F & 29.92 in. Hg)
- Particulate Concentration (Lbs/1000 Lbs,Dry) – Pounds of Particulate Per Thousand Pounds of Exhaust Gas On A Dry Basis
- Particulate Mass Emission Rate (Lbs/Hr) – Pounds of Particulate Per Hour

A more detailed breakdown for each sample can be found in Appendix A.

IV. SAMPLING AND ANALYTICAL PROTOCOL

IV.1 PM – The particulate sampling was conducted in accordance with U.S. EPA Method 17. Method 17 is an in-stack filtration method. The samples were collected isokinetically on filters. Three (3) samples were collected from the Pulp Dryer exhaust. Each sample was sixty (60) minutes in duration and had a minimum sample volume of thirty (30) dry standard cubic feet. The nozzle rinses and filters were analyzed gravimetrically for particulate in accordance with Method 17. All the quality assurance and quality control procedures listed in the methods were incorporated in the sampling and analysis. The particulate sampling train is shown in Figure 1.

IV.2 Exhaust Gas Parameters – The exhaust gas parameters (air flow rate, temperature, moisture and density) were determined in conjunction with the other sampling by employing U.S. EPA Methods 1 through 4. All the quality assurance and quality control procedures listed in the methods were incorporated in the sampling and analysis.

IV.3 Sampling Location – The sampling location for the Pulp Dryer exhaust was on the 19.5 by 17.5 inch rectangular exhaust. Two (2) sample ports were used. The sampling points are as follows:

Point	Location (Inches)
1	1.63
2	4.88
3	8.13
4	11.38
5	14.63
6	17.88

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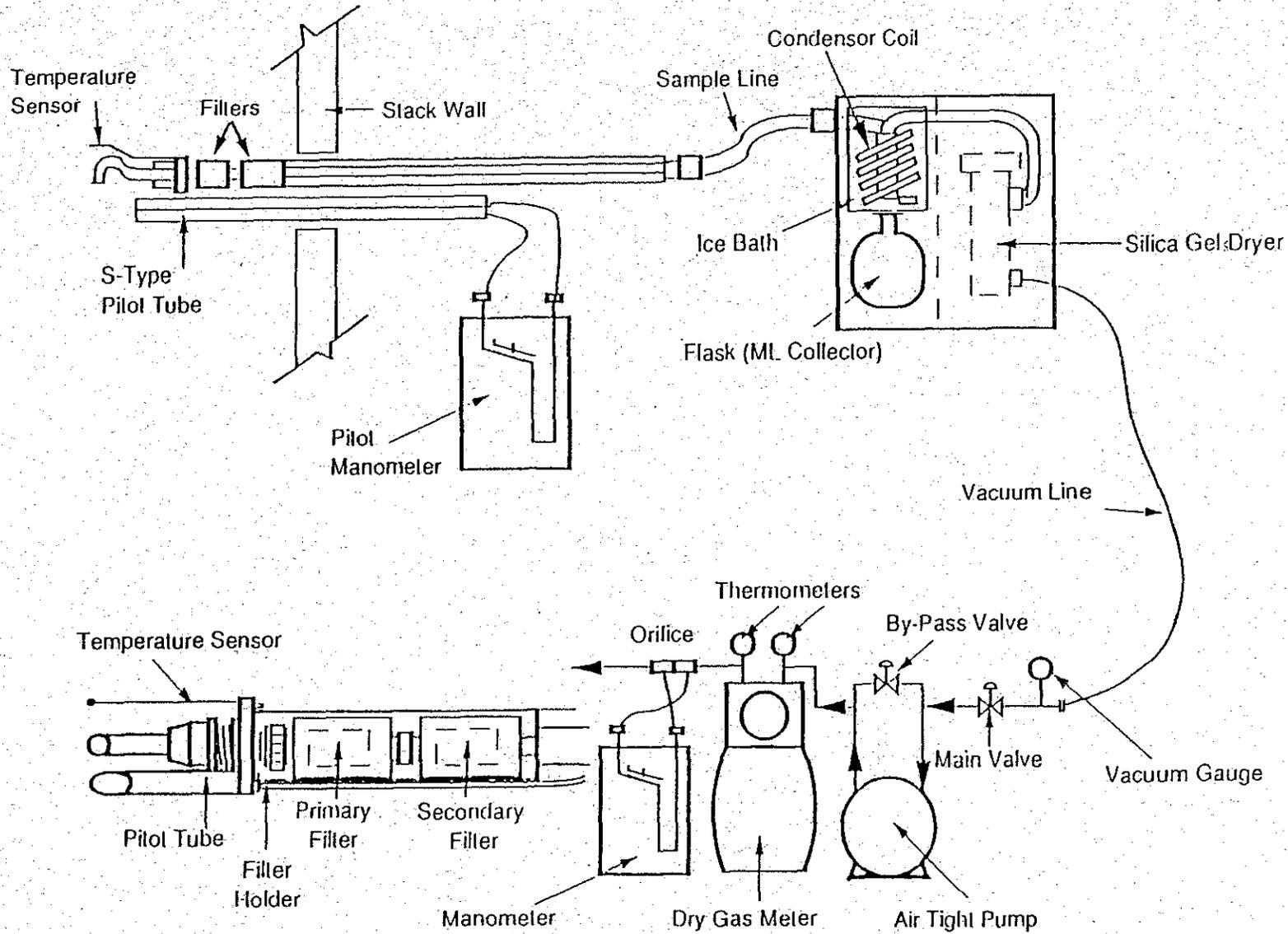


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5

FIGURE 1
EPA METHOD 17
PARTICULATE SAMPLING TRAIN