Report of...

Compliance Emission Testing

performed for...

Plastic Plate, LLC.
Kraft Avenue Plant
Kentwood, Michigan

on the

Chrome Etch Exhaust

October 26, 2017

021.26

Network Environmental, Inc.
Grand Rapids, MI

I. INTRODUCTION

Network Environmental, Inc. was retained by Lacks Enterprises to perform Total Chromium (Cr) compliance emission sampling on the Chrome Etch (EUCHROMEETCH/SVK2) exhaust located at their Plastic Plate facility in Kentwood, Michigan. The purpose of the study was to quantify the Cr emissions from the exhaust to demonstrate compliance with Renewable Operating Permit MI-ROP-N7374-2015.

The sampling was performed by R. Scott Cargill and Richard D. Eerdmans of Network Environmental, Inc. on October 26, 2017 by employing U.S. EPA Method 306, Assisting in the study was Ms. Karen Baweja of Lacks Industries. Ms. April Lazzaro and Mr. Jeremy Howe of the Michigan Department of Environmental Quality-Air Quality Division were present to observe the testing and source operation.

II. PRESENTATION OF RESULTS

II.1 TABLE 1
CHROMIUM (Cr) EMISSION RESULTS
CHROME ETCH EXHAUST
PLASIC PLATE, LLC
KENTWOOD, MICHIGAN
OCTOBER 26, 2017

Sample	Time	Air Flow Rate DSCFM(1)	Concentration Mg/M^3(2)	Mass Emission Rate Lbs/Hr(3)
1	7:42-9:46	47,755	0.0069	0.0012
2	10:15-12:18	47,360	0.0100	0.0018
3	12:43-14:47	46,742	0.0147	0.0026
Average		**47,286**	**0.0105**	**0.0019**

(1) DSCFM = Dry Standard Cubic Feet Per Minute (STP = 68°F & 29.92 in. Hg)
(2) Mg/M^3 = Milligrams Per Dry Standard Cubic Meter
(3) Lbs/Hr = Pounds Per Hour

III. DISCUSSION OF RESULTS

The Cr emission results are presented in Table 1 (Section II.1).

The Total Chromium emission limits for this source is:
Chrome Etch = 0.0032 Lbs/Hr and 0.016 Mg/DSCM

IV. SAMPLING AND ANALYTICAL PROTOCOL

The sampling location for the Chrome Etch was on the sixty (60) inch I.D. exhaust stack at a location which met the optimal test location requirements of U.S. EPA Reference Method 1. Twelve (12) sampling points total were used for the testing (6 points per port). The points are as follows:

Point #	Point Location (Inches)
1	2.64
2	8.76
3	17.76
4	42.24
5	51.24
6	57.36

IV.1 Chromium (Cr) - The sampling was performed in accordance with U.S. EPA Reference Method 306. Three (3) samples, each 120 minutes in duration, were collected from the exhaust. The samples were collected isokinetically in a 0.1N Sodium Bicarbonate solution as outlined in the method. The samples were analyzed for total chromium (Cr) by ICP - MS. All the quality assurance and quality control procedures listed in the method were incorporated in the sampling and analysis.

A diagram of the sampling train can be seen in Figure 1.

IV.2 Exhaust Gas Parameters - In addition to the Cr sampling, the exhaust gas parameters (air flow rate, temperature, moisture, and density) were determined by employing U.S. EPA Reference Methods 1 through 4. All the quality control and quality assurance requirements listed in the methods were incorporated in the sampling and analysis.

This report was prepared by:

R. Scott Cargill
Project Manager

This report was reviewed by:

David D. Engelhardt
Vice President

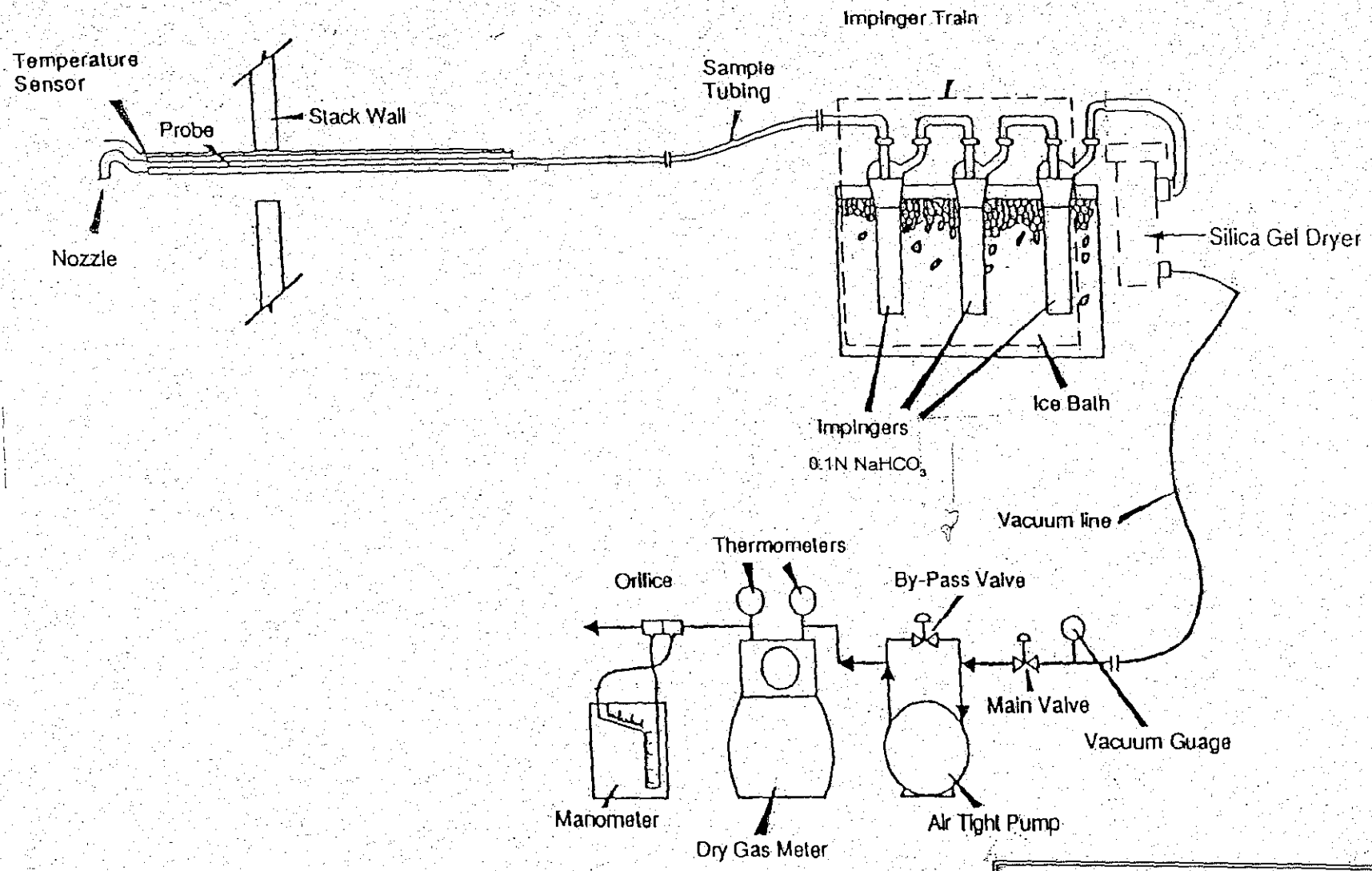

FIGURE 1

TOTAL CHROME SAMPLING TRAIN