CHARLOTTE
PIPE AND FOUNDRY COMPANY
PLASTICS
DIVISION

January 6, 2012

Florida Department of Environmental Protection
Cindy Zhang-Torres, PE
Air Permitting Manager, Southwest District
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Dept. of Environmental Protection
JAN 09 2012
Southwest District

RE: Air Operation Permit Renewal Application
Project No. 1190030-012-AF
Charlotte Pipe and Foundry Company
Request for Additional Information
AEI Project No. 188-105

Ms. Zhang-Torres:

In a letter dated December 20, 2011, the FDEP requested additional information prior to completion of Charlotte Pipe and Foundry's air permit renewal application submitted December 1, 2011.

The FDEP December 20, 2011 letter requested additional information regarding three items: A change in the number of ink jet printers; the addition of two PVC extruder lines; and, the confidentiality of Charlotte Pipes operating records.

Item 1: "During an inspection of the facility on 12/19/2011, it was brought to the notice of the Department that the facility had removed all eleven (11) Video Jet – Model EXCEL 1701 inkjet printers and added six (6) Imaje – Model JAIME 100S8 inkjet printers to make a total of 18 Imaje inkjet printers. Please (1) provide the date(s) when the Video Jet printers were removed and when the additional six (6) Imaje printers were installed; and (2) explain why the addition of six (6) inkjet printers did not constitute "modification", as defined in Rule 62-210.200, F.A.C. – Definitions…"

62-210.200 (199) "Modification" – Any physical change in, change in the method of operation of, or addition to a facility ***which would result in an increase in the actual emissions of any air pollutant*** subject to regulation under the Act, including any not previously emitted, from any emissions unit or facility.

PO Box 1339 – Monroe, NC 28111-1339
Phone: Monroe – 704-289-2531 Charlotte - 704-372-3650

- Through an investigation into our records, it was determined that the last purchase of ink/additive for the Video Jet inkjet printers located on-site occurred on December 16, 2005. The Video Jet inkjet printers were decommissioned at the facility shortly after that time. The last six (6) Imaje inkjet printers purchased by the facility were received at the facility on the following dates:

# of Imaje Printers Received	Date Facility Received Printers
One (1)	6/6/2006
Four (4)	3/1/2007
One (1)	4/16/2007

- Since Charlotte Pipe's current air permit is based on maximum material throughput and the number of inkjet printers does not necessarily have a direct impact on emissions, it is Charlotte Pipe's understanding that a reduction in the total number of inkjet printers does not meet the 62-210.200 definition of "modification". Charlotte Pipe's current air permit identifies the Inkjet Printing Process, as a whole, as Emission Unit No. 009. We request that the individual manufacturers of the inkjet printers continue to be left out of the description of Emission Unit No. 009, in case future changes in manufacturers occur. Essentially all inkjet printers perform the same function and utilize the same technology so we feel they are interchangeable and should be treated as such on the air permit.

Item 2: "During an inspection of the facility on 12/19/2011, it was also brought to the notice of the Department that the facility had added two (2) PVC extruder lines (Lines 10 and 11). Please confirm that there are now 12 PVC extruders and two (2) CPVC extruders at the facility."

- It is correct that there were twelve (12) PVC extruders and two (2) CPVC extruders located at the facility at the time of your inspection on 12/19/2011. With that said, the facility has decided to remove one (1) PVC extruder from the facility, effective 1/9/2012. This will give the facility a total of eleven (11) PVC extruders and two (2) CPVC extruders beginning on 1/9/2012.

Item 3: "The Operating Records in Attachment 5 of the application are labeled "Confidential"...We had been advised by our program attorney in the past that information used to determine emissions cannot be considered "confidential", as the public has the right to know what they are exposed to and how the emissions are estimated. Please refer to Florida Statutes, Section 403.111: Confidential Records and Section 812.081: Trade Secrets; Theft, Embezzlement; Unlawful Copying; Definitions; Penalty and explain in the light of the information stated why Attachment 5, Operating Records should be treated as "confidential" information."

- Charlotte Pipe understands the facility's Operating Records in Attachment 5 of the application cannot be held "confidential" per Florida Statutes Sections 403.111 and 812.081 and agree to discontinue labeling the Operating Records "confidential". A copy of the non-confidential operating records can be found attached to this letter.

If you have any questions or we may be of further assistance in this matter, please contact James Neubauer at (704) 226-8335.

Sincerely,
Charlotte Plastics

C. Leon Salter, Jr.
Sr. Vice President – Plastics Division

PO Box 1339 – Monroe, NC 28111-1339
Phone: Monroe – 704-289-2531 Charlotte - 704-372-3650

CHARLOTTE PIPE AND FOUNDRY COMPANY - PLASTICS DIVISION

WILDWOOD, FLORIDA

Production Rate

Date	CPVC	PVC	CPVC	PVC	Daily Average PVC	Daily Average CPVC
	tons	tons	hrs	hrs	tons/hr	tons/hr
10/1/11	5.02	37.11	24.00	24.00	1.55	0.21
10/2/11	5.01	37.86	24.00	24.00	1.58	0.21
10/3/11	5.00	38.83	24.00	24.00	1.62	0.21
10/4/11	5.05	44.45	22.50	24.00	1.85	0.22
10/5/11	0.00	61.25	0.00	24.00	2.55	0.00
10/6/11	0.00	60.17	0.00	24.00	2.51	0.00
10/7/11	0.00	59.55	0.00	24.00	2.48	0.00
10/8/11	0.00	59.58	0.00	24.00	2.48	0.00
10/9/11	0.00	63.31	0.00	24.00	2.64	0.00
10/10/11	2.96	49.49	20.00	24.00	2.06	0.15
10/11/11	3.91	41.27	22.50	24.00	1.72	0.17
10/12/11	4.94	40.93	24.00	24.00	1.71	0.21
10/13/11	3.98	45.18	24.00	24.00	1.88	0.17
10/14/11	4.99	28.34	24.00	24.00	1.18	0.21
10/15/11	3.96	3.96	24.00	24.00	0.17	0.17
10/16/11	5.01	23.81	24.00	24.00	0.99	0.21
10/17/11	4.53	37.72	24.00	24.00	1.57	0.19
10/18/11	4.52	48.92	24.00	24.00	2.04	0.19
10/19/11	4.54	46.53	24.00	24.00	1.94	0.19
10/20/11	4.66	46.97	20.30	24.00	1.96	0.23
10/21/11	4.97	39.29	24.00	24.00	1.64	0.21
10/22/11	5.03	48.67	24.00	24.00	2.03	0.21
10/23/11	4.99	42.30	24.00	24.00	1.76	0.21
10/24/11	4.15	45.45	19.00	24.00	1.89	0.22
10/25/11	5.45	45.43	24.00	24.00	1.89	0.23
10/26/11	5.41	42.20	24.00	24.00	1.76	0.23
10/27/11	5.36	25.74	24.00	24.00	1.07	0.22
10/28/11	5.36	14.26	24.00	24.00	0.59	0.22
10/29/11	4.96	13.18	24.00	24.00	0.55	0.21
10/30/11	5.69	15.30	24.00	24.00	0.64	0.24
10/31/11	4.98	16.89	24.00	24.00	0.70	0.21

Total	**124.46**	**1223.93**	**608.30**	**744.00**	**1.65**	**0.20**

CHARLOTTE PIPE AND FOUNDRY COMPANY - PLASTICS DIVISION
WILDWOOD, FLORIDA
Consecutive 12-month Totals

Month	Production		Ink Usage							
	PVC Pipe Production (tons/month)	CPVC Pipe Production (tons/month)	Imaje 5135 Black Ink Usage (gal/month)	Imaje 5191 Additive Usage (gal/month)	Imaje 5142 Red Ink Usage (gal/month)	Imaje 5157E Black Ink Usage (gal/month)	Matthews M149 Yellow Ink Usage (gal/month)	Matthews #10 Thinner Usage (gal/month)	Total Ink Recycled (gal/month)	Total Ink Usage (gal/month)
Nov-10	1,282	0	0	47.556	3.1704	0	0	0	0	50.7264
Dec-10	1,044	0	0	59.445	8.4544	0	0	0	0	67.8994
Jan-11	1,540	0	0	28.5336	8.4544	9.5112	0	0	55	-8.5008
Feb-11	961	0	0	47.556	4.2272	7.1334	0	0	0	58.9166
Mar-11	2,328	35	0	118.89	10.568	0	0	0	0	129.458
Apr-11	2,192	0	0	71.334.	14.7952	0	0	0	0	86.1292
May-11	2,336	52	0	47.556	0	0	0	0	0	47.556
Jun-11	1,882	66	0	118.89	4.2272	7.1334	0	0	55	75.2506
Jul-11	864	49	0	47.556	15.852	0	0	0	0	63.408
Aug-11	1,263	38	0	121.0036	0	0	0	0	0	121.0036
Sep-11	1,084	50	0	47.556	4.2272	9.5112	3	4	0	68.2944
Oct-11	1,224	124	0	35.667	4.2272	0	0	0	0	39.8942
12 month total	**17,998**	**414**	**0**	**792**	**78**	**33**	**3**	**4**	**110**	**800**

Month	Ink Jet Printing Emissions				PVC and CPVC Production Emissions					Total Emissions	
	Methanol (HAP,VOC)	Isophorone (HAP,VOC)	Printing Total VOC	Printing Total HAPs	Chloroform (HAP,VOC)	Carbon Tetrachloride (HAP,VOC)	Vinyl Chloride (HAP,VOC)	Production Total VOC	Production Total HAPs	Total VOC	Total HAPs
	(tons/month)	(tons/month)	(tons/month)	(tons/month)	(tons/month)	(tons/month)	(tons/month)	(tons/month)	(tons/month)	(tons/month)	(tons/month)
Nov-10	0	0	1.7E-01	0	0	0	4.5E-04	4.5E-04	4.5E-04	1.7E-01	4.5E-04
Dec-10	0	0	2.3E-01	0	0	0	3.7E-04	3.7E-04	3.7E-04	2.3E-01	3.7E-04
Jan-11	0	0	-3.4E-02	0	0	0	5.4E-04	5.4E-04	5.4E-04	-3.3E-02	5.4E-04
Feb-11	0	0	2.0E-01	0	0	0	3.4E-04	3.4E-04	3.4E-04	2.0E-01	3.4E-04
Mar-11	0	0	4.3E-01	0	4.6E-08	1.1E-08	8.1E-04	8.1E-04	8.1E-04	4.3E-01	8.1E-04
Apr-11	0	0	2.8E-01	0	0	0	7.7E-04	7.7E-04	7.7E-04	2.8E-01	7.7E-04
May-11	0	0	1.6E-01	0	6.7E-08	1.6E-08	8.2E-04	8.2E-04	8.2E-04	1.6E-01	8.2E-04
Jun-11	0	0	2.5E-01	0	8.6E-08	2.0E-08	6.6E-04	6.6E-04	6.6E-04	2.5E-01	6.6E-04
Jul-11	0	0	2.1E-01	0	6.3E-08	1.5E-08	3.0E-04	3.0E-04	3.0E-04	2.1E-01	3.0E-04
Aug-11	0	0	4.1E-01	0	5.0E-08	1.1E-08	4.4E-04	4.4E-04	4.4E-04	4.1E-01	4.4E-04
Sep-11	0	6.6E-03	2.3E-01	6.6E-03	6.5E-08	1.5E-08	3.8E-04	3.8E-04	3.8E-04	2.3E-01	7.0E-03
Oct-11	0	0	1.3E-01	0	1.6E-07	3.7E-08	4.3E-04	4.3E-04	4.3E-04	1.3E-01	4.3E-04
12 month total	**0**	**6.6E-03**	**2.7E+00**	**6.6E-03**	**5.4E-07**	**1.2E-07**	**6.3E-03**	**6.3E-03**	**6.3E-03**	**2.7E+00**	**1.3E-02**

CHARLOTTE
PIPE AND FOUNDRY COMPANY
PLASTICS
DIVISION

November 30, 2011

Florida Department of Environmental Protection
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

RE: Air Operating Permit Renewal
Charlotte Pipe and Foundry Company, Wildwood, Florida
AEI Job No. N188-105

Dear Sir or Madam:

Charlotte Pipe and Foundry Company, Plastics Division (CPFC) is submitting the required four (4) copies of a completed Air Operating Permit Renewal, and a $3,000 check to cover the required permit renewal fees for the CPFC Wildwood, Florida facility.

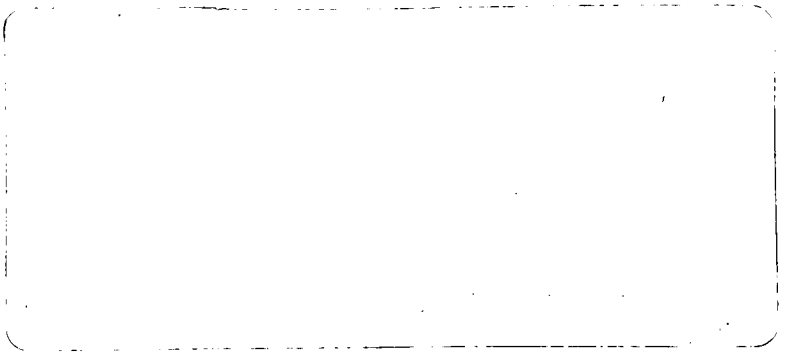
As required by the facility's current air permit (Permit No. 1190030-011-AF), a copy of the visible emissions test reports conducted on September 13, 2011, as well as a copy of the required operation records for October 2011 are included with the permit renewal application.

If you have any questions or concerns regarding the attached permit application, please contact me at (704) 226-8335.

Sincerely,

James Neubauer
Environmental, Health & Safety/5S Manager
Charlotte Pipe and Foundry Company

PO Box 1339 – Monroe, NC 28111-1339
Phone: Monroe – 704-289-2531 Charlotte - 704-372-3650



AWARE ENVIRONMENTAL®

AIR OPERATING PERMIT
RENEWAL APPLICATION
CHARLOTTE PIPE AND FOUNDRY COMPANY
WILDWOOD, FLORIDA

Prepared for:

CHARLOTTE PIPE AND FOUNDRY COMPANY
PLASTICS DIVISION
MONROE, NORTH CAROLINA

Prepared by:

AWARE ENVIRONMENTAL, INC.
8514 McALPINE PARK DRIVE, SUITE 100
CHARLOTTE, NORTH CAROLINA
AEI Job No. N188-105
AEI Document No. 188105r001

NOVEMBER 2011

TABLE OF CONTENTS

FIGURES

ATTACHMENTS

1.0 INTRODUCTION

Charlotte Pipe and Foundry Company, Plastics Division (CPFC) is required to submit an Air Operating Permit Renewal Application for its polyvinyl chloride (PVC) and chlorinated polyvinyl chloride (CPVC) pipe manufacturing facility. The facility is located in Wildwood, Florida (Figure 1) and will submit an application for renewal of it Synthetic Minor Non-Title V Air Operating Permit (Permit No. 1190030-011-AF, expiring 02/12/2012).

2.0 APPLICATION FOR RENEWAL OF NON-TITLE V AIR PERMIT

Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR NON-TITLE V AIR PERMIT RENEWAL

See Instructions for Form No. 62-210.900(4)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **Charlotte Pipe and Foundry Company**	
2. Site Name **(N/A)**	
3. Facility Identification Number **1190030**	4. Facility Status Code **A**

Application Contact

1. Name and Title of Application Contact: **Jennifer Garvon, PE** **Senior Project Engineer**	
2. Application Contact Mailing Address: Organization/Firm: **Aware Environmental, Inc.** Street Address: **8514 McAlpine Park Dr., Suite 100** City, State, ZIP: **Charlotte, North Carolina 28211**	
3. Application Contact Telephone Numbers Telephone: **(704) 845-1697**	Fax: **(704) 845-1759**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	12-1-11
2. Permit Number:	1190030-012-AF

Owner/Authorized Representative

1. Name and Title of Owner/Authorized Representative:
   C. Leon Salter, Jr
   Senior Vice President, Plastics Division

2. Owner/Authorized Representative Mailing Address:
   Organization/Firm: **Charlotte Pipe and Foundry – Plastics Division**
   Street Address: **4210 Old Monroe Highway**
   City, State, ZIP: **Monroe, North Carolina 28110**

3. Owner/Authorized Representative Telephone Numbers:
   Telephone: **(704) 291-3216** Fax: **(704) 348-9919**

4. Owner/Authorized Representative Statement:

   I, the undersigned, am the owner or authorized representative of the facility addressed in this Application for Air Permit. 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. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described in this application 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.*

C Leon Salter Jr. 11-30-11

Signature C. LEON SALTER, JR. Date

SR. VP-PLASTICS DIV.

*Attach letter of authorization if not currently on file.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
002	PVC Storage Silos (6)	AO2B	$1000
007	CPVC Storage Silo and Associated Vacuum Unloader Railcar System	AO2B	$1000
009	Ink Jet Printing	AO2B	~~$1000~~ 750

Application Processing Fee

Check one: [✓] Attached – Amount: **$3,000.00** [ ] Not Applicable

Application Comment

II. FACILITY INFORMATION

Facility Contact

1. Name and Title of Facility Contact: **James Neubauer** **Environmental Health and Safety/S5 Manager**
2. Facility Contact Mailing Address Organization/Firm: **Charlotte Pipe and Foundry – Plastics Division** Street Address: **4210 Old Monroe Highway** City, State, ZIP: **Monroe, North Carolina 28110**
3. Facility Contact Telephone Numbers Telephone: **(704) 226-8335** Fax: **(704) 348-9883**

Facility Supplemental Requirements

1. Area Map Showing Facility Location [✓] Attached, Document ID: **Figure 1** [ ] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan [✓] Attached, Document ID: **Figure 2** [ ] Not Applicable [ ] Waiver Requested
3. Facility Flow Diagram [✓] Attached, Document ID: **Attachment 1** [ ] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter [✓] Attached, Document ID: **Attachment 2** [ ] Not Applicable [ ] Waiver Requested

Facility Comment

Emission Unit ID 002

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section must be completed for each emissions unit addressed in this Application for Non-Title V Air Permit Renewal. If submitting the form in hard copy, indicate, in the space provided at the top of each page, the Emissions Unit ID of the emissions unit addressed on the page, as given in the unit's most current air operation permit.

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit 60 characters): **PVC Storage Silos #2-#6** **PVC Resin Storage Silo #7**	
2. Emissions Unit Status Code: **A**	3. Long-Term Reserve Shutdown Date: **N/A**
4. Control Equipment Method/Description (limit 200 characters per device of method): **Cartridge Filter**	

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: **N/A** mmBtu/hr	
2. Maximum Incineration Rate: **N/A** lb/hr tons/day	
3. Maximum Process of Throughput Rate: **See Below, EU Comments**	
4. Maximum Production Rate: **N/A**	
5. Requested Maximum Operating Schedule: **N/A** **24** Hours/day **7** days/week **52** Weeks/year **8760** hours/yr	

Emission Unit ID 002

Emissions Unit Supplemental Requirements

1. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested
2. Compliance Test Report [✓] Attached, Document ID: **Attachment 3** [ ] Not Applicable [ ] Previously submitted, Date_____
3. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested
4. Operation and Maintenance Plan [✓] Attached, Document ID: **Attachment 4** [ ] Not Applicable [ ] Waiver Requested
5. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested

Emissions Unit Comment

- Attachment B is a Method 9 compliance test report for EU 002 (and EU 007). Observation data was collected 09/13/2011.
- Emissions Unit Operating Capacity and Schedule for EU 002 also includes Silo Loading Rates:

Emissions Source Description	Maximum Unit Loading Rate (lbs/hr)
PVC Storage Silo 2	16,000
PVC Storage Silo 3	13,000
PVC Storage Silo 4	15,000
PVC Storage Silo 5	15,000
PVC Storage Silo 6	13,000
PVC Resin Storage Silo 7	15,000

- Filters on silos 2,3,4,5 and 6 will be replaced with similar filters during the upcoming permit cycle as part of regular routine maintenance.

Emission Unit ID 007

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit 60 characters): **CPVC Storage Silo and Associated Vacuum Unloader Railcar System**	
2. Emissions Unit Status Code: **A**	3. Long-Term Reserve Shutdown Date: **N/A**
4. Control Equipment Method/Description (limit 200 characters per device of method): **Cartridge Filter (ES-36, EP-24)**	

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: **N/A** mmBtu/hr
2. Maximum Incineration Rate: **N/A** lb/hr yons/day
3. Maximum Process of Throughput Rate: **See Below, EU Comments**
4. Maximum Production Rate: **N/A**
5. Requested Maximum Operating Schedule: **N/A** **24** Hours/day **7** days/week **52** Weeks/year **8760** hours/yr

Emission Unit ID 007

Emissions Unit Supplemental Requirements

1. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested
2. Compliance Test Report [✓] Attached, Document ID: **Attachment 3** [ ] Not Applicable [ ] Previously submitted, Date_____
3. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested
4. Operation and Maintenance Plan [✓] Attached, Document ID: **Attachment 4** [ ] Not Applicable [ ] Waiver Requested
5. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested

Emissions Unit Comment

Attachment B is a Method 9 compliance test report for EU 002 (and EU 007). Observation data was collected 09/13/2011.

Emissions Unit Operating Capacity and Schedule for EU 002 also includes Silo Loading Rates:

Emissions Source Description	Maximum Unit Loading Rate (lbs/hr)
CPVC Storage Silo and Associated Vacuum Unloader Railcar System	3,500

Emission Unit ID 009

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit 60 characters): **Ink Jet Printing**	
2. Emissions Unit Status Code: **A**	3. Long-Term Reserve Shutdown Date: **N/A**
4. Control Equipment Method/Description (limit 200 characters per device of method): **(Uncontrolled)**	

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: **N/A** mmBtu/hr
2. Maximum Incineration Rate: **N/A** lb/hr tons/day
3. Maximum Process of Throughput Rate: **12.5 tons/hr each PVC and CPVC** **60,000 tons/yr PVC; 10,000 tons/yr CPVC**
4. Maximum Production Rate: **N/A**
5. Requested Maximum Operating Schedule: **24** Hours/day **7** days/week **52** Weeks/year **8760** hours/yr

Emission Unit ID 009

Emissions Unit Supplemental Requirements

1. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested
2. Compliance Test Report [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Previously submitted, Date_____
3. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested
4. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested
5. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [✓] Not Applicable [ ] Waiver Requested

Emissions Unit Comment

FIGURES

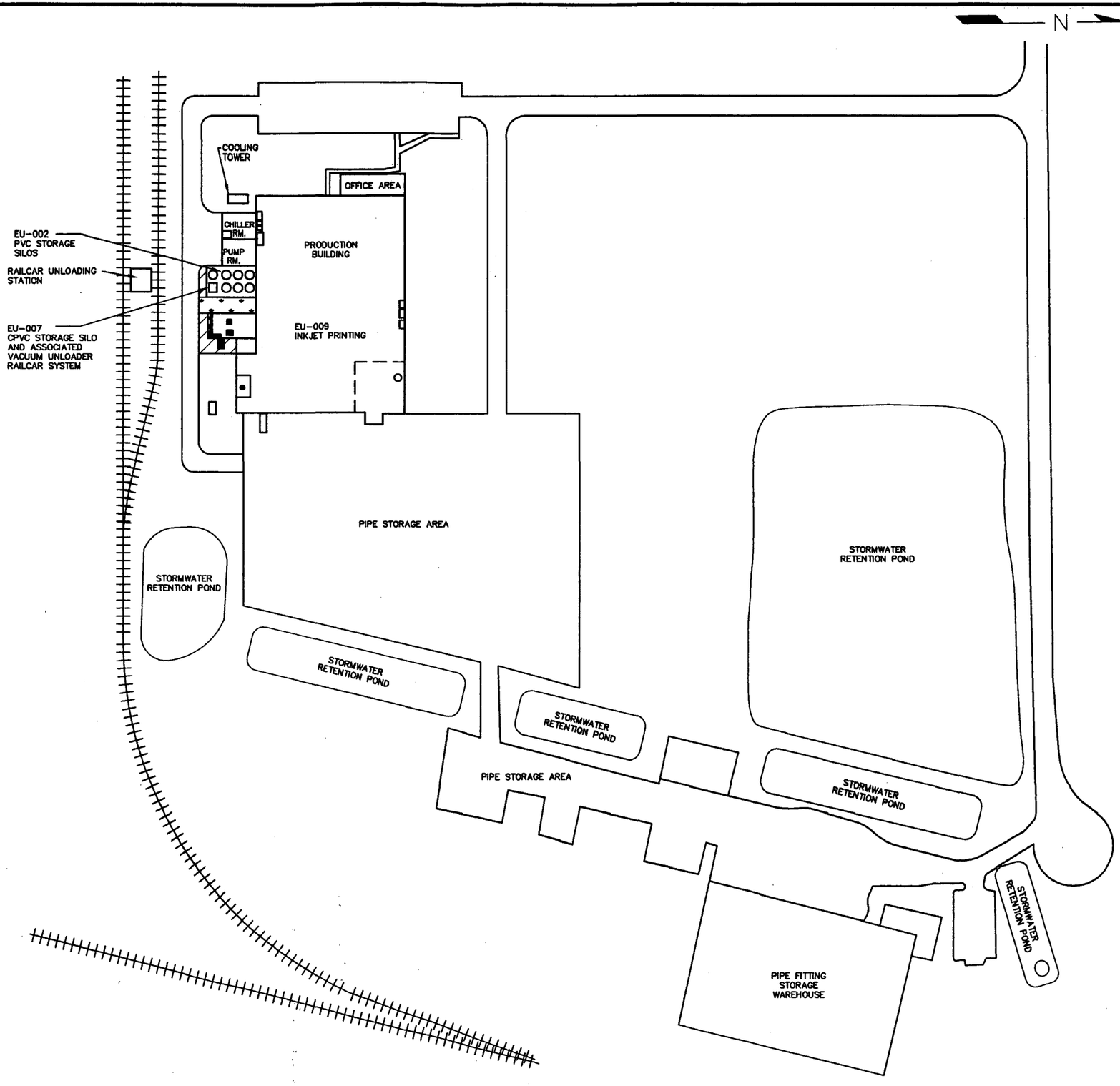
N

CHARLOTTE PIPE AND FOUNDRY
WILDWOOD, FLORIDA

FIGURE 1
SITE LOCATION MAP

AWARE ENVIRONMENTAL® INC

AEI PROJECT No. N188-105



November 29, 2011 3:49:29 p.m.
Drawing: 188105S01.DWG

FACILITY PLOT PLAN

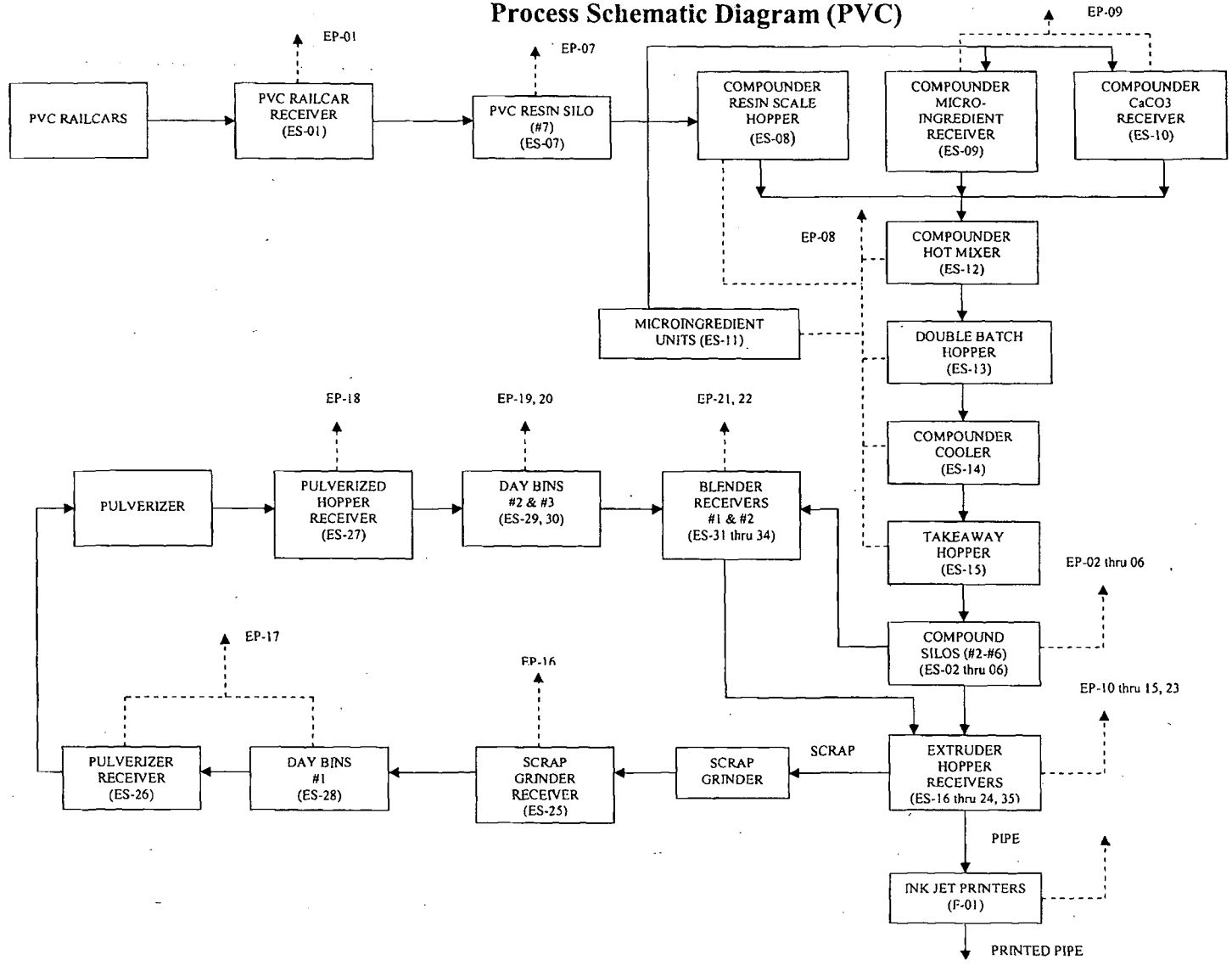
CHARLOTTE PIPE AND FOUNDRY
WILDWOOD, FLORIDA

SCALE NOT TO SCALE	APPROVED BY :	DRAWN BY: J.K.S.
DATE NOVEMBER 2011	DESIGNED BY :	REVISED
PROJECT NUMBER N188-105	AWARE ENVIRONMENTAL INC. 9305-J MONROE RD. CHARLOTTE, NC 28270	DRAWING NO. FIGURE 2

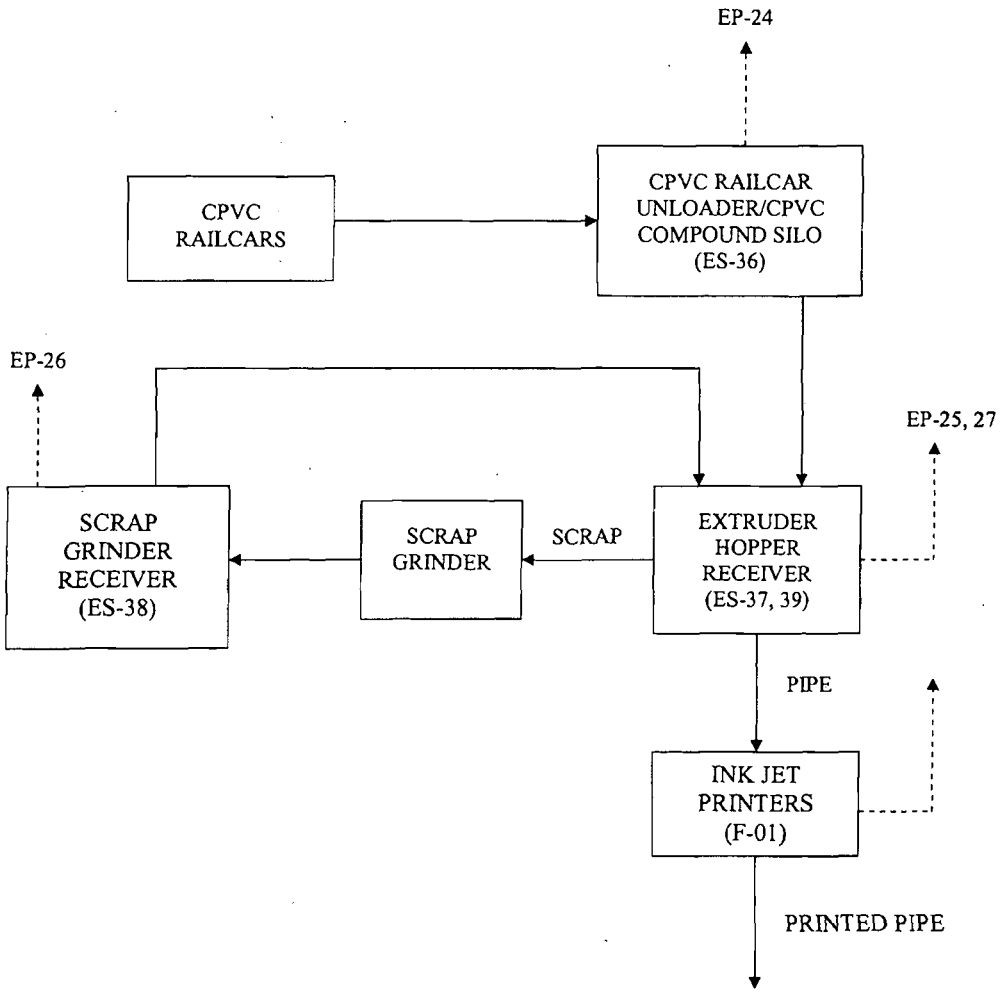
ATTACHMENT 1

PROCESS FLOW DIAGRAMS
PVC and CPVC

Process Schematic Diagram (PVC)



Process Schematic Diagram (CPVC)



ATTACHMENT 2

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

PRECAUTIONS TO PREVENT EMISSIONS FROM UNCONFINED PARTICULATE MATTER

(62-296.320(4)(c)

Reasonable precautions to prevent the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling will include the following, where applicable:

1. Paving and maintenance of roads, parking areas and yards.
2. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
3. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
4. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
5. Landscaping or planting of vegetation.
6. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
7. Confining abrasive blasting where possible.
8. Enclosure or covering of conveyor systems.

ATTACHMENT 3

COMPLIANCE TEST REPORT

AIR TESTING & CONSULTING

333 FALKENBURG RD. N. B-214 • TAMPA, FLORIDA 33619 • (813) 651-0878 • FAX (813) 653-9082

September 13, 2011

Danielle Henry
Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Re: Charlotte Pipe and Foundry Company
1190030-011-AF

Dear Danielle:

Enclosed are two (2) copies each of the compliance test reports for Charlotte Pipe and Foundry Company. The following testing was performed:

- ID 002 – PVC Storage Silos (6) - Method 9 (visible emissions)
- ID 007 – CPVC Storage Silo and Vacuum Unloader Railcar System - Method 9 (visible emissions)

If you have any questions, please contact me at (813) 651-0878.

Sincerely,

Kenneth Given, P.E.
President

cc: James Young, Charlotte Pipe

AIR TESTING & CONSULTING, INC.

(813) 651-0878

Facility Name	Permit Number
CHARLOTTE PIPE	1190030-011-AF

Source	I.D. No.
PVC PIPE MANUFACTURER	002

Address
4149 COUNTY ROAD 124A

City	County	Zip
WILDWOOD	SUMTER	34785

Contact	Phone
JAMES YOUNG	352-748-8100

Process Equipment	Max. Operating Rate
PVC STORAGE SILO 2	16,000 PPH
Control Equipment	Operating Mode
CARTRIDGE FILTER	15,460

Fuel Type/Rate	Material Type/Rate
N/A	PVC

Describe Emission Point
Start Filter Exit

Height Above Ground Level	Height Relative to Observer
Start ~40 Stop ✓	Start ~35 Stop ✓
Distance from Observer	**Direction from Observer**
Start ~300 Stop ✓	Start W Stop ✓

Describe Emissions
O Coning O Fumigating O Looping O Lofting O Fanning
✓ None Stop ✓

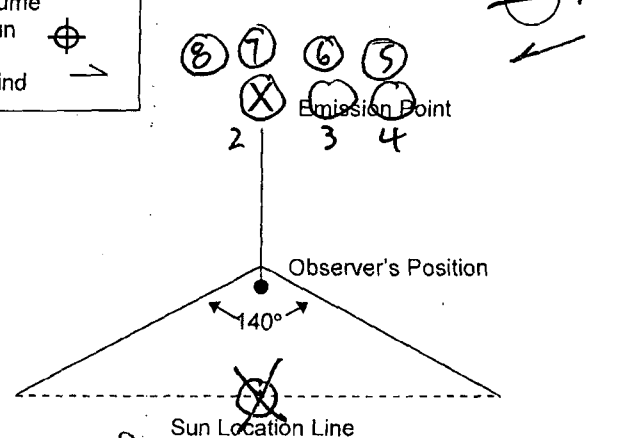
Emission Color	Plume Type
Start N/A Stop ✓	o Continuous o Intermittent N/A
Water Droplets Present	**Water Droplet Plume**
o No o Yes	o Attached o Detached o None

Point in the Plume at which Opacity was determined
Start N/A Stop

Describe Background	Ambient Temp
Start SKY Stop ✓	Start 75° Stop ✓
Background Color	**Sky Conditions**
Start Blue Stop ✓	(Clear) Scattered Broken Overcast
Wind Speed	**Wind Direction**
Start 2-5 Stop ✓	Start N Stop ✓

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH



I certify the above process rate data is true to the best of my knowledge.
SIGNATURE James L. Young
Title Plant Manager Date 9-13-11

Observation Date	Start Time	Stop Time
9-13-11	9:30	10:00

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1.	0	0	0	0	31.				
2.	0	0	0	0	32.				
3.	0	0	0	0	33.				
4.	0	0	0	0	34.				
5.	0	0	0	0	35.				
6.	0	0	0	0	36.				
7.	0	0	0	0	37.				
8.	0	0	0	0	38.				
9.	0	0	0	0	39.				
10.	0	0	0	0	40.				
11.	0	0	0	0	41.				
12.	0	0	0	0	42.				
13.	0	0	0	0	43.				
14.	0	0	0	0	44.				
15.	0	0	0	0	45.				
16.	0	0	0	0	46.				
17.	0	0	0	0	47.				
18.	0	0	0	0	48.				
19.	0	0	0	0	49.				
20.	0	0	0	0	50.				
21.	0	0	0	0	51.				
22.	0	0	0	0	52.				
23.	0	0	0	0	53.				
24.	0	0	0	0	54.				
25.	0	0	0	0	55.				
26.	0	0	0	0	56.				
27.	0	0	0	0	57.				
28.	0	0	0	0	58.				
29.	0	0	0	0	59.				
30.	0	0	0	0	60.				

Average Opacity for Highest 24 Consecutive Readings	Range of Opacity Readings Min.	Max.
0	0	0

Observer's Name (Print) KENNETH GIVEN
Observer's Signature Kenneth Given Date 9-13-11
Certified by E.T.A. Date 8/03/11

Comments

AIR TESTING & CONSULTING, INC.

(813) 651-0878

Facility Name	Permit Number
CHARLOTTE PIPE	1190030-011-AF

Source	I.D. No.
PVC PIPE MANUFACTURER	002

Address
4149 COUNTY ROAD 124A

City	County	Zip
WILDWOOD	SUMTER	34785

Contact	Phone
JAMES YOUNG	352-748-8100

Process Equipment	Max. Operating Rate
PVC STORAGE SILO 3	13,000 PPH
Control Equipment	Operating Mode
CARTRIDGE FILTER	12, 212

Fuel Type/Rate	Material Type/Rate
N/A	PVC

Describe Emission Point
Start Filter Exit

Height Above Ground Level	Height Relative to Observer
Start ~40 Stop 40	Start 135 Stop ✓
Distance from Observer	Direction from Observer
Start ~300 Stop ✓	Start W Stop ✓

Describe Emissions
O Coning O Fumigating O None Stop ✓
O Looping O Lofting O Fanning

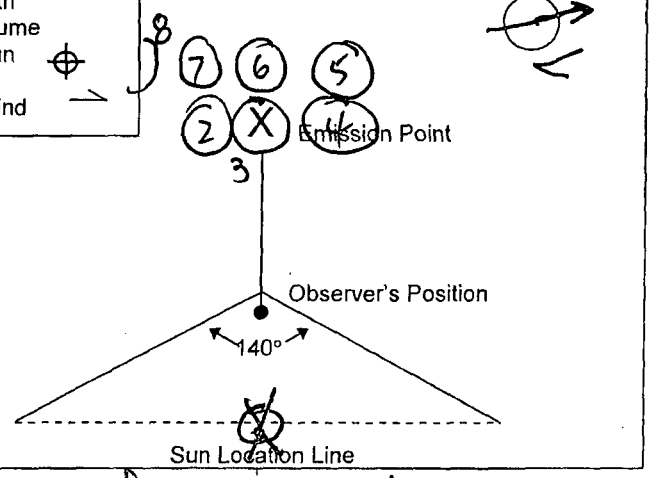
Emission Color	Plume Type
Start N/A Stop ✓	o Continuous o Intermittent N/A
Water Droplets Present	Water Droplet Plume
o No o Yes	o Attached o Detached o None

Point in the Plume at which Opacity was determined
Start Stop

Describe Background	Ambient Temp
Start SKY Stop ✓	Start 75° Stop ✓
Background Color	Sky Conditions
Start Blue Stop ✓	(Clear) Scattered Broken Overcast
Wind Speed	Wind Direction
Start 2-5 Stop ✓	Start N Stop ✓

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH Draw North Arrow



I certify the above process rate data is true to the best of my knowledge.
SIGNATURE James L. Young
Title Plant Manger Date 9-13-11

Observation Date	Start Time	Stop Time
9-13-11	10:11	10:41

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1.	0	0	0	0	31.				
2.	0	0	0	0	32.				
3.	0	0	0	0	33.				
4.	0	0	0	0	34.				
5.	0	0	0	0	35.				
6.	0	0	0	0	36.				
7.	0	0	0	0	37.				
8.	0	0	0	0	38.				
9.	0	0	0	0	39.				
10.	0	0	0	0	40.				
11.	0	0	0	0	41.				
12.	0	0	0	0	42.				
13.	0	0	0	0	43.				
14.	0	0	0	0	44.				
15.	0	0	0	0	45.				
16.	0	0	0	0	46.				
17.	0	0	0	0	47.				
18.	0	0	0	0	48.				
19.	0	0	0	0	49.				
20.	0	0	0	0	50.				
21.	0	0	0	0	51.				
22.	0	0	0	0	52.				
23.	0	0	0	0	53.				
24.	0	0	0	0	54.				
25.	0	0	0	0	55.				
26.	0	0	0	0	56.				
27.	0	0	0	0	57.				
28.	0	0	0	0	58.				
29.	0	0	0	0	59.				
30.	0	0	0	0	60.				

Average Opacity for Highest 24 Consecutive Readings	Range of Opacity Readings Min.	Max.
0	0	0

Observer's Name (Print) KENNETH GIVEN
Observer's Signature Kenneth Given Date 9-13-11
Certified by E.T.A. Date 8/03/11
Comments

AIR TESTING & CONSULTING, INC.

(813) 651-0878

Facility Name	Permit Number
CHARLOTTE PIPE	1190030-011-AF

Source	I.D. No.
PVC PIPE MANUFACTURER	002

Address: 4149 COUNTY ROAD 124A

City	County	Zip
WILDWOOD	SUMTER	34785

Contact	Phone
JAMES YOUNG	352-748-8100

Process Equipment	Max. Operating Rate
PVC STORAGE SILO 4	15,000 TPH
Control Equipment: CARTRIDGE FILTER	Operating Mode: 14,564

Fuel Type/Rate	Material Type/Rate
N/A	PVC

Describe Emission Point
Start: Filter Exit

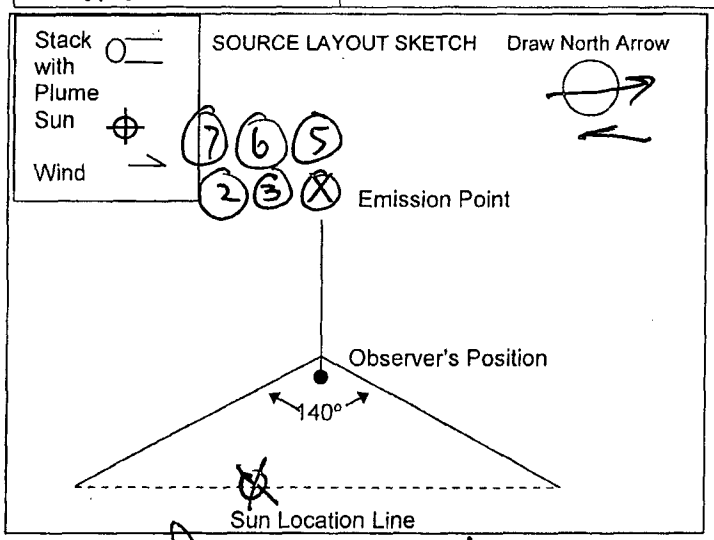
Height Above Ground Level	Height Relative to Observer
Start ~40 Stop ✓	Start ~35 Stop ✓
Distance from Observer	**Direction from Observer**
Start ~300 Stop ✓	Start W Stop ✓

Describe Emissions
O Coning O Fumigating O Looping O Lofting O Fanning
None Stop ✓

Emission Color	Plume Type
Start N/A Stop ✓	o Continuous o Intermittent N/A
Water Droplets Present	**Water Droplet Plume**
o No o Yes	o Attached o Detached o None

Point in the Plume at which Opacity was determined
Start N/A Stop

Describe Background	Ambient Temp
Start SKY Stop ✓	Start 79° Stop ✓
Background Color	**Sky Conditions**
Start Blue Stop ✓	(Clear) Scattered Broken Overcast
Wind Speed	**Wind Direction**
Start 2-5 Stop ✓	Start N Stop ✓



I certify the above process rate data is true to the best of my knowledge.
SIGNATURE: James L Young
Title: Plant Manager Date: 9-13-11

Observation Date: 9-13-11 Start Time: 11:20 Stop Time: 11:50

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1.	0	0	0	0	31.				
2.	0	0	0	0	32.				
3.	0	0	0	0	33.				
4.	0	0	0	0	34.				
5.	0	0	0	0	35.				
6.	0	0	0	0	36.				
7.	0	0	0	0	37.				
8.	0	0	0	0	38.				
9.	0	0	0	0	39.				
10.	0	0	0	0	40.				
11.	0	0	0	0	41.				
12.	0	0	0	0	42.				
13.	0	0	0	0	43.				
14.	0	0	0	0	44.				
15.	0	0	0	0	45.				
16.	0	0	0	0	46.				
17.	0	0	0	0	47.				
18.	0	0	0	0	48.				
19.	0	0	0	0	49.				
20.	0	0	0	0	50.				
21.	0	0	0	0	51.				
22.	0	0	0	0	52.				
23.	0	0	0	0	53.				
24.	0	0	0	0	54.				
25.	0	0	0	0	55.				
26.	0	0	0	0	56.				
27.	0	0	0	0	57.				
28.	0	0	0	0	58.				
29.	0	0	0	0	59.				
30.	0	0	0	0	60.				

Average Opacity for Highest 24 Consecutive Readings	Range of Opacity Readings Min.	Max.
0	0	0

Observer's Name (Print): KENNETH GIVEN
Observer's Signature: Kenneth Given Date: 9-13-11
Certified by E.T.A. Date: 8/03/11

Comments

AIR TESTING & CONSULTING, INC.
(813) 651-0878

Facility Name	Permit Number
CHARLOTTE PIPE	1190030-011-AF

Source	I.D. No.
PVC PIPE MANUFACTURER	002

Address
4149 COUNTY ROAD 124A

City	County	Zip
WILDWOOD	SUMTER	34785

Contact	Phone
JAMES YOUNG	352-748-8100

Process Equipment	Max. Operating Rate
PVC STORAGE SILO 5	15,000 TPH
Control Equipment	Operating Mode
CARTRIDGE FILTER	14,564

Fuel Type/Rate	Material Type/Rate
N/A	PVC

Describe Emission Point
Start Filter Exit

Height Above Ground Level	Height Relative to Observer
Start ~40 Stop ✓	Start ~35 Stop ✓
Distance from Observer	Direction from Observer
Start ~300 Stop ✓	Start W Stop ✓

Describe Emissions
O Coning O Fumigating O Looping O Lofting O Fanning
O None Stop ✓

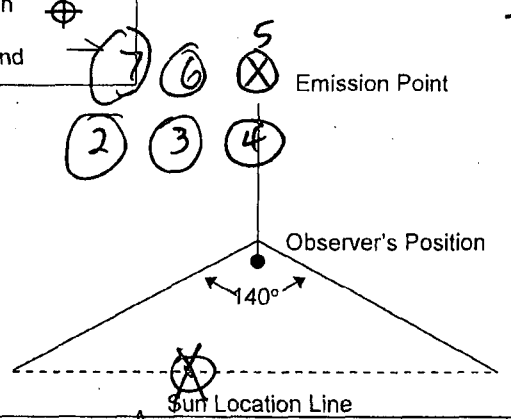
Emission Color	Plume Type
Start N/A Stop ✓	o Continuous o Intermittent N/A
Water Droplets Present	Water Droplet Plume
o No o Yes	o Attached o Detached o None

Point in the Plume at which Opacity was determined
Start Stop

Describe Background	Ambient Temp
Start SKY Stop ✓	Start 79° Stop ✓
Background Color	Sky Conditions
Start Blue Stop ✓	(Clear) Scattered Broken Overcast
Wind Speed	Wind Direction
Start 2-5 Stop ✓	Start N Stop ✓

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH Draw North Arrow



I certify the above process rate data is true to the best of my knowledge.
SIGNATURE Jim L. Young
Title Plant Manager Date 9-13-11

Observation Date	Start Time	Stop Time
9-13-11	11:56	12:26

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1.	0	0	0	0	31.				
2.	0	0	0	0	32.				
3.	0	0	0	0	33.				
4.	0	0	0	0	34.				
5.	0	0	0	0	35.				
6.	0	0	0	0	36.				
7.	0	0	0	0	37.				
8.	0	0	0	0	38.				
9.	0	0	0	0	39.				
10.	0	0	0	0	40.				
11.	0	0	0	0	41.				
12.	0	0	0	0	42.				
13.	0	0	0	0	43.				
14.	0	0	0	0	44.				
15.	0	0	0	0	45.				
16.	0	0	0	0	46.				
17.	0	0	0	0	47.				
18.	0	0	0	0	48.				
19.	0	0	0	0	49.				
20.	0	0	0	0	50.				
21.	0	0	0	0	51.				
22.	0	0	0	0	52.				
23.	0	0	0	0	53.				
24.	0	0	0	0	54.				
25.	0	0	0	0	55.				
26.	0	0	0	0	56.				
27.	0	0	0	0	57.				
28.	0	0	0	0	58.				
29.	0	0	0	0	59.				
30.	0	0	0	0	60.				

Average Opacity for Highest 24 Consecutive Readings	Range of Opacity Readings Min.	Max.
0	0	0

Observer's Name (Print) KENNETH GIVEN
Observer's Signature Kenneth Given Date 9-13-11
Certified by E.T.A. Date 8/03/11
Comments

AIR TESTING & CONSULTING, INC.

(813) 651-0878

Facility Name	Permit Number
CHARLOTTE PIPE	1190030-011-AF

Source	I.D. No.
PVC PIPE MANUFACTURER	002

Address
4149 COUNTY ROAD 124A

City	County	Zip
WILDWOOD	SUMTER	34785

Contact	Phone
JAMES YOUNG	352-748-8100

Process Equipment	Max. Operating Rate
PVC STORAGE SILO 6	13,000 TPH
Control Equipment	Operating Mode
CARTRIDGE FILTER	12,212

Fuel Type/Rate	Material Type/Rate
N/A	PVC

Describe Emission Point
Start Filter Exit

Height Above Ground Level	Height Relative to Observer
Start ~40 ✓ Stop	Start ~35 ✓ Stop
Distance from Observer	Direction from Observer
Start ~300 ✓ Stop	Start W ✓ Stop

Describe Emissions
O Coning O Fumigating O Looping O Lofting O Fanning
None ✓ Stop

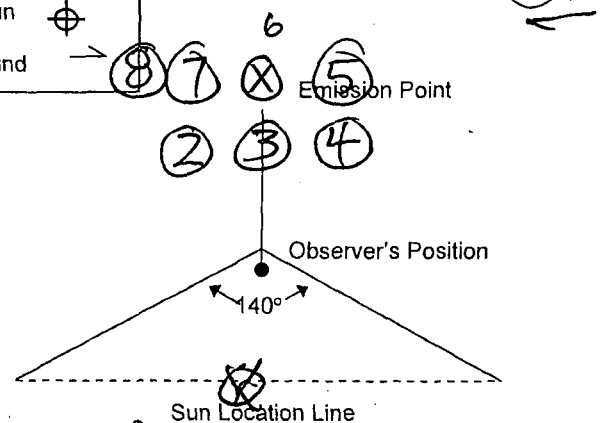
Emission Color	Plume Type
Start N/A Stop	o Continuous o Intermittent N/A
Water Droplets Present	Water Droplet Plume
o No o Yes	o Attached o Detached o None

Point in the Plume at which Opacity was determined
Start N/A Stop

Describe Background	Ambient Temp
Start SKY ✓ Stop	Start 77° ✓ Stop
Background Color	Sky Conditions
Start Blue ✓ Stop	(Clear) Scattered Broken Overcast
Wind Speed	Wind Direction
Start 2-5 ✓ Stop	Start N ✓ Stop

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH Draw North Arrow



I certify the above process rate data is true to the best of my knowledge.
SIGNATURE James L. Young
Title Plant Manager Date 9-13-11

Observation Date	Start Time	Stop Time
9-13-11	10:46	11:16

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1.	0	0	0	0	31.				
2.	0	0	0	0	32.				
3.	0	0	0	0	33.				
4.	0	0	0	0	34.				
5.	0	0	0	0	35.				
6.	0	0	0	0	36.				
7.	0	0	0	0	37.				
8.	0	0	0	0	38.				
9.	0	0	0	0	39.				
10.	0	0	0	0	40.				
11.	0	0	0	0	41.				
12.	0	0	0	0	42.				
13.	0	0	0	0	43.				
14.	0	0	0	0	44.				
15.	0	0	0	0	45.				
16.	0	0	0	0	46.				
17.	0	0	0	0	47.				
18.	0	0	0	0	48.				
19.	0	0	0	0	49.				
20.	0	0	0	0	50.				
21.	0	0	0	0	51.				
22.	0	0	0	0	52.				
23.	0	0	0	0	53.				
24.	0	0	0	0	54.				
25.	0	0	0	0	55.				
26.	0	0	0	0	56.				
27.	0	0	0	0	57.				
28.	0	0	0	0	58.				
29.	0	0	0	0	59.				
30.	0	0	0	0	60.				

Average Opacity for Highest 24 Consecutive Readings	Range of Opacity Readings Min.	Max.
0	0	0

Observer's Name (Print)
KENNETH GIVEN

Observer's Signature Kenneth Given Date 9-13-11

Certified by E.T.A. Date 8/03/11

Comments

AIR TESTING & CONSULTING, INC.

(813) 651-0878

Facility Name	Permit Number
CHARLOTTE PIPE	1190030-011-AF

Source	I.D. No.
PVC PIPE MANUFACTURER	002

Address: 4149 COUNTY ROAD 124A

City	County	Zip
WILDWOOD	SUMTER	34785

Contact	Phone
JAMES YOUNG	352-748-8100

Process Equipment	Max. Operating Rate
PVC STORAGE SILO 7	15,000 TPH
Control Equipment: CARTRIDGE FILTER	Operating Mode: 14,250

Fuel Type/Rate	Material Type/Rate
N/A	PVC

Describe Emission Point
Start: Filter Exit

Height Above Ground Level	Height Relative to Observer
Start ~40 Stop ✓	Start ~35 Stop ✓

Distance from Observer	Direction from Observer
Start ~300 Stop ✓	Start W Stop ✓

Describe Emissions
O Coning O Fumigating O None Stop ✓
O Looping O Lofting O Fanning

Emission Color	Plume Type
Start N/A Stop	o Continuous o Intermittent N/A

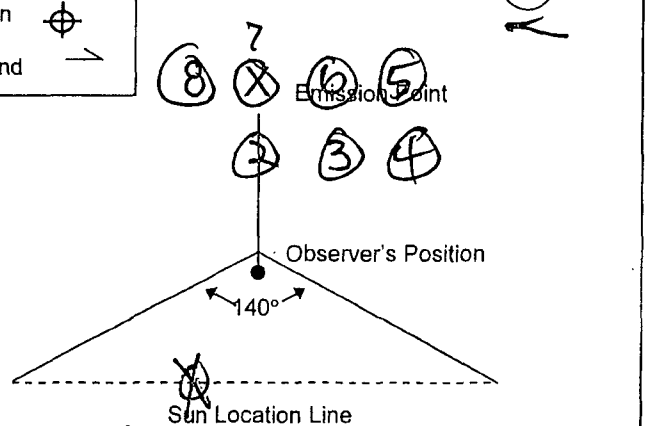
Water Droplets Present	Water Droplet Plume
o No o Yes	o Attached o Detached o None

Point in the Plume at which Opacity was determined
Start N/A Stop

Describe Background	Ambient Temp
Start SKY Stop ✓	Start 79° Stop ✓
Background Color: Start Blue Stop ✓	Sky Conditions: (Clear) Scattered Broken Overcast
Wind Speed: Start 2-5 Stop ✓	Wind Direction: Start N Stop ✓

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH Draw North Arrow



I certify the above process rate data is true to the best of my knowledge.
SIGNATURE James L. Young
Title Plant Manager Date 9-13-11

Observation Date	Start Time	Stop Time
9-13-11	11:20	11:50

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1.	0	0	0	0	31.				
2.	0	0	0	0	32.				
3.	0	0	0	0	33.				
4.	0	0	0	0	34.				
5.	0	0	0	0	35.				
6.	0	0	0	0	36.				
7.	0	0	0	0	37.				
8.	0	0	0	0	38.				
9.	0	0	0	0	39.				
10.	0	0	0	0	40.				
11.	0	0	0	0	41.				
12.	0	0	0	0	42.				
13.	0	0	0	0	43.				
14.	0	0	0	0	44.				
15.	0	0	0	0	45.				
16.	0	0	0	0	46.				
17.	0	0	0	0	47.				
18.	0	0	0	0	48.				
19.	0	0	0	0	49.				
20.	0	0	0	0	50.				
21.	0	0	0	0	51.				
22.	0	0	0	0	52.				
23.	0	0	0	0	53.				
24.	0	0	0	0	54.				
25.	0	0	0	0	55.				
26.	0	0	0	0	56.				
27.	0	0	0	0	57.				
28.	0	0	0	0	58.				
29.	0	0	0	0	59.				
30.	0	0	0	0	60.				

Average Opacity for Highest 24 Consecutive Readings	Range of Opacity Readings Min.	Max.
0	0	0

Observer's Name (Print): KENNETH GIVEN
Observer's Signature: Kenneth Given Date: 9-13-11
Certified by E.T.A. Date: 8/03/11

Comments

AIR TESTING & CONSULTING, INC.

(813) 651-0878

Facility Name	Permit Number
CHARLOTTE PIPE	1190030-011-AF

Source	I.D. No.
PVC PIPE MANUFACTURER	007

Address
4149 COUNTY ROAD 124A

City	County	Zip
WILDWOOD	SUMTER	34785

Contact	Phone
JAMES YOUNG	352-748-8100

Process Equipment	Max. Operating Rate
CPVC STORAGE SILO #8	3,500 PPH
Control Equipment	Operating Mode
CARTRIDGE FILTER	3,290

Fuel Type/Rate	Material Type/Rate
N/A	PVC

Describe Emission Point
Start Filter Exit

Height Above Ground Level	Height Relative to Observer
Start ~40 Stop ✓	Start ~35 Stop ✓
Distance from Observer	**Direction from Observer**
Start ~300 Stop ✓	Start W Stop ✓

Describe Emissions
O Coning O Fumigating O Looping O Lofting O Fanning
None Start ✓ Stop ✓

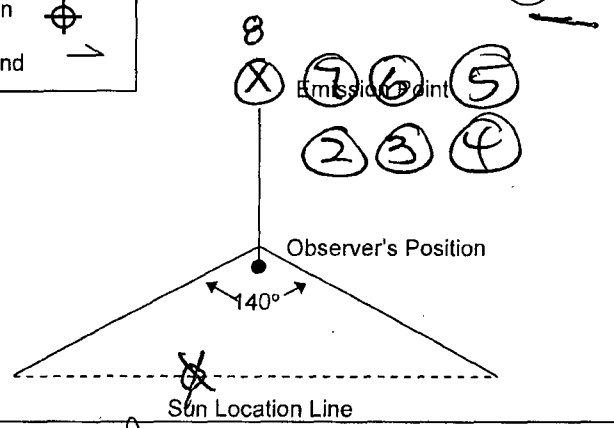
Emission Color	Plume Type
Start N/A Stop	o Continuous o Intermittent N/A
Water Droplets Present	**Water Droplet Plume**
o No o Yes	o Attached o Detached o None

Point in the Plume at which Opacity was determined
Start N/A Stop

Describe Background	Ambient Temp
Start SKY Stop ✓	Start 79° Stop ✓
Background Color	**Sky Conditions**
Start Blue Stop ✓	(Clear) Scattered Broken Overcast
Wind Speed	**Wind Direction**
Start 2-5 Stop ✓	Start N Stop ✓

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH Draw North Arrow



Observation Date	Start Time	Stop Time
9-13-11	11:20	11:50

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1.	0	0	0	0	31.				
2.	0	0	0	0	32.				
3.	0	0	0	0	33.				
4.	0	0	0	0	34.				
5.	0	0	0	0	35.				
6.	0	0	0	0	36.				
7.	0	0	0	0	37.				
8.	0	0	0	0	38.				
9.	0	0	0	0	39.				
10.	0	0	0	0	40.				
11.	0	0	0	0	41.				
12.	0	0	0	0	42.				
13.	0	0	0	0	43.				
14.	0	0	0	0	44.				
15.	0	0	0	0	45.				
16.	0	0	0	0	46.				
17.	0	0	0	0	47.				
18.	0	0	0	0	48.				
19.	0	0	0	0	49.				
20.	0	0	0	0	50.				
21.	0	0	0	0	51.				
22.	0	0	0	0	52.				
23.	0	0	0	0	53.				
24.	0	0	0	0	54.				
25.	0	0	0	0	55.				
26.	0	0	0	0	56.				
27.	0	0	0	0	57.				
28.	0	0	0	0	58.				
29.	0	0	0	0	59.				
30.	0	0	0	0	60.				

Average Opacity for Highest 24 Consecutive Readings	Range of Opacity Readings Min.	Max.
0	0	0

Observer's Name (Print)
KENNETH GIVEN
Observer's Signature Kenneth Given — Date 9-13-11
Certified by E.T.A. — Date 8/03/11
Comments

I certify the above process rate data is true to the best of my knowledge.
SIGNATURE James L. Young
Title Plant Manager Date 9-13-11

VISIBLE EMISSIONS EVALUATOR

Kenneth Given

This Is To Certify That The Above Named Observer Has Met The Specifications Of Federal Reference Method 9 And Qualifies As A Visible Emissions Evaluator. Certification Test Conducted By Eastern Technical Associates Of Raleigh, N.C.

GIV583223	396463
Student ID Number	Certificate Number
8/3/2011	2/2/2012
Certification Date	Certification Expiration Date
ORLANDO, FL	TMPS11
Location	Last Lecture

ATTACHMENT 4

OPERATION AND MAINTENANCE PLAN

O. A. NEWTON

Material Control Systems Group

REVERSE PULSE FILTERS

Operating Instructions

RECEIVING YOUR UNIT

Prior to accepting shipment, care must be taken to inspect all equipment received both for proper count and damage. Any and all irregularities must be noted on carrier's copy of the shipping receipt to assist in settling any claims for damage or shortages. All equipment is shipped F.O.B. Point of Origin, whether on a prepaid or collect basis.

ANY CLAIM FOR DAMAGE IN TRANSIT OR SHORTAGES MUST BE BROUGHT AGAINST THE CARRIER BY THE PURCHASER.

INSPECTION OF UNIT

Housing: Particular attention should be paid to the sheet metal housing of your collector. Unit should be inspected for dents and cracks or rips. Dented housing may seriously affect the structural integrity of the unit. Unit should be checked against the certified drawings for correctness and the manufacturer notified immediately. No corrections may be made without authority of the manufacturer.

Components: A count should be made of all pieces received, and this should be verified against the carrier's manifest. Boxes should be inspected for rough handling which may have resulted in hidden damage.

SETTING UP YOUR UNIT

Housing: Lifting lugs are normally provided for your convenience in handling the dust collector. If these cannot be used, proper care must be taken to assure safe moving and precautions taken to prevent damage to the housing or components.

Electrical: A 120 V. 60 cycle power wiring circuit must be connected to the filter's timer. The timer must be wired according to timer instruction sheet enclosed. Check solenoid wiring and program jumper. Program jumper must be installed in #3 position for (3) solenoid filters, #4 position for (4) solenoid filters and so on. Set "on" time at minimum setting of 50 milliseconds. Set "off" time at approximately 10 seconds. Refer to timer sheet attached. Then follow standard start up instructions.

U.S. Rte 13, P.O. Box 397, Bridgeville, Delaware 19933 (302) 337-8211 fax:(302) 337-3780

Compressed Air: All compressed air piping leading to the collector must be purged prior to hooking up to the distribution header located on the unit. 90 - 100 PSIG of clean, dry air is required for your unit to operate properly. It is recommended that a shut-off valve, a pressure regulator, and an inline filter should be installed immediately upstream from the distribution header.

If excessive moisture is present an after cooler and dessicant dryer is strongly recommended.

Assembling bags and cages into housing: Please refer to individual instruction sheet for filter assembly.

Doors: Hold-downs on doors should only be hand tightened. Excessive pressure can distort the door panel itself resulting in leakage.

Auxiliary Equipment: All auxiliary equipment must be installed according to manufacturer's specifications and interlocked with the entire system as needed. Direction of rotation of each items should be checked prior to start up to entire system.

START UP INSTRUCTIONS

Check air pressure available, verify 90 - 100 PSIG.

Apply current to timer and make sure the timer is cycling.

Allow unit to run under normal conveying conditions for at least 48 hours, after initial installation of bags. This will allow bags to reach their maximum operating efficiency. During initial start up there may be some minor product carry over until the bags reach maximum operating efficiency.

After 48 hours inspect the bags, bag clamps and note conveying conditions. If the product is caked on the bags or being carried through the bags or conveying rates are low, see trouble shooting section. The bags should be inspected monthly and replaced if holes or wearing are observed.

TROUBLE SHOOTING

1.) Low conveying rates due to excessive high pressure on pressure conveying systems or high vacuum on vacuum conveying systems.

- A.) Check air pressure in header.
- B.) Check timer to see if it is functioning properly. Decrease "off" time to a minimum of 3 seconds and repeat instructions described under the "Start up Instructions".
- C.) Check solenoid valves to see if they are operating properly.
- D.) Check for loose wiring.

E.) Check for moisture or oil in air lines. Check to see if upper part of filter bags are damp or caked up. Install "after cooler" following the compressor and automatic moisture drains on receiver, and provide moisture traps or dessicant type dryer at collector if moisture is present.

F.) Check dew point of dust laden air. If unit is at or below dew point it may be necessary to pre-heat collector with hot, dry gas before start-up and/or to insulate collector. If heavy moisture condenses on the bags at shut-down then the collector must be purged with hot, dry gas before final shut-down.

G.) Check if bags are "skin" tight on cages. Bags must be free on cage for proper "flex". Bags which have been cleaned or washed may shrink and must be checked for a "loose" fit. Check hopper for overloading.

1.) Check dust discharge mechanism for proper operation and capacity. Correct if necessary.

2.) Check for material bridging across hopper or sticking to hopper. Coat hopper with Epoxy or Teflon type coating or add a sufficient size rapper or vibrator to keep hopper clear.

2.) High Product Carry Over.

A.) Allow unit to run at least 48 to 96 hours after initial installation of bags before performing checks. This running time allows bags to reach their operating efficiency and dusting may stop.

B.) Check filter bags for holes and wearing, replace if necessary.

C.) Check bag installation.

3.) Poor Bag Life.

A.) Check for moisture and dew point in unit. High moisture will cause certain filter materials to shrink and shorten bag life.

B.) If localized abrasion of bags is observed an impingement baffle may be required.

C.) Check for corrosion on cages. "Rough" surfaces will cause excess bag wear. Plastic coated or 304 Stainless Steel cages are available.

If you are experiencing any difficulties not covered by the above instructions, contact your O. A. Newton Salesman.

TIMER INSTRUCTIONS

Please refer to the individual instruction sheet for timer operation.

TIMER TROUBLE SHOOTING

1.) Check for mechanical damage.
2.) Check wiring of both power and solenoid valves.
3.) If indicator light is not on, check power input.
4.) Check fuse, replace if blown.
5.) Check program jumper. Program jumper should be in #3 position for 3 solenoid units and #4 position for 4 solenoid units and so on.
6.) Refer to timer instructions for further data.

INITIAL SETTING OF TIMER

1.) Set "On" time at minimum setting of 50 milliseconds.
2.) Set "Off" time at approximately 10 seconds. Then follow standard start up instructions.

ATTACHMENT 5
OPERATING RECORDS

~~CONFIDENTIAL~~ This record is not confidential per letter dt. 01/09/2012. (In file). Quaid Now

CHARLOTTE PIPE AND FOUNDRY COMPANY - PLASTICS DIVISION

WILDWOOD, FLORIDA

Production Rate

Date	CPVC	PVC	CPVC	PVC	Daily Average PVC	Daily Average CPVC
	tons	tons	hrs	hrs	tons/hr	tons/hr
10/1/11	5.02	37.11	24.00	24.00	1.55	0.21
10/2/11	5.01	37.86	24.00	24.00	1.58	0.21
10/3/11	5.00	38.83	24.00	24.00	1.62	0.21
10/4/11	5.05	44.45	22.50	24.00	1.85	0.22
10/5/11	0.00	61.25	0.00	24.00	2.55	0.00
10/6/11	0.00	60.17	0.00	24.00	2.51	0.00
10/7/11	0.00	59.55	0.00	24.00	2.48	0.00
10/8/11	0.00	59.58	0.00	24.00	2.48	0.00
10/9/11	0.00	63.31	0.00	24.00	2.64	0.00
10/10/11	2.96	49.49	20.00	24.00	2.06	0.15
10/11/11	3.91	41.27	22.50	24.00	1.72	0.17
10/12/11	4.94	40.93	24.00	24.00	1.71	0.21
10/13/11	3.98	45.18	24.00	24.00	1.88	0.17
10/14/11	4.99	28.34	24.00	24.00	1.18	0.21
10/15/11	3.96	3.96	24.00	24.00	0.17	0.17
10/16/11	5.01	23.81	24.00	24.00	0.99	0.21
10/17/11	4.53	37.72	24.00	24.00	1.57	0.19
10/18/11	4.52	48.92	24.00	24.00	2.04	0.19
10/19/11	4.54	46.53	24.00	24.00	1.94	0.19
10/20/11	4.66	46.97	20.30	24.00	1.96	0.23
10/21/11	4.97	39.29	24.00	24.00	1.64	0.21
10/22/11	5.03	48.67	24.00	24.00	2.03	0.21
10/23/11	4.99	42.30	24.00	24.00	1.76	0.21
10/24/11	4.15	45.45	19.00	24.00	1.89	0.22
10/25/11	5.45	45.43	24.00	24.00	1.89	0.23
10/26/11	5.41	42.20	24.00	24.00	1.76	0.23
10/27/11	5.36	25.74	24.00	24.00	1.07	0.22
10/28/11	5.36	14.26	24.00	24.00	0.59	0.22
10/29/11	4.96	13.18	24.00	24.00	0.55	0.21
10/30/11	5.69	15.30	24.00	24.00	0.64	0.24
10/31/11	4.98	16.89	24.00	24.00	0.70	0.21

Total	124.46	1223.93	608.30	744.00	1.65	0.20

~~CONFIDENTIAL~~ This record is not confidential per letter dt- 01/09/2012 (In file). Q AMNon

CHARLOTTE PIPE AND FOUNDRY COMPANY - PLASTICS DIVISION
WILDWOOD, FLORIDA
Consecutive 12-month Totals

Month	**Production**		**Ink Usage**							
	PVC Pipe Production (tons/month)	CPVC Pipe Production (tons/month)	Imaje 5135 Black Ink Usage (gal/month)	Imaje 5191 Additive Usage (gal/month)	Imaje 5142 Red Ink Usage (gal/month)	Imaje 5157E Black Ink Usage (gal/month)	Matthews M149 Yellow Ink Usage (gal/month)	Matthews #10 Thinner Usage (gal/month)	Total Ink Recycled (gal/month)	Total Ink Usage (gal/month)
Nov-10	1,282	0	0	47.556	3.1704	0	0	0	0	50.7264
Dec-10	1,044	0	0	59.445	8.4544	0	0	0	0	67.8994
Jan-11	1,540	0	0	28.5336	8.4544	9.5112	0	0	55	-8.5008
Feb-11	961	0	0	47.556	4.2272	7.1334	0	0	0	58.9166
Mar-11	2,328	35	0	118.89	10.568	0	0	0	0	129.458
Apr-11	2,192	0	0	71.334	14.7952	0	0	0	0	86.1292
May-11	2,336	52	0	47.556	0	0	0	0	0	47.556
Jun-11	1,882	66	0	118.89	4.2272	7.1334	0	0	55	75.2506
Jul-11	864	49	0	47.556	15.852	0	0	0	0	63.408
Aug-11	1,263	38	0	121.0036	0	0	0	0	0	121.0036
Sep-11	1,084	50	0	47.556	4.2272	9.5112	3	4	0	68.2944
Oct-11	1,224	124	0	35.667	4.2272	0	0	0	0	39.8942
12 month total	**17,998**	**414**	**0**	**792**	**78**	**33**	**3**	**4**	**110**	**800**

Month	**Ink Jet Printing Emissions**				**PVC and CPVC Production Emissions**					**Total Emissions**	
	Methanol (HAP,VOC) (tons/month)	Isophorone (HAP,VOC) (tons/month)	Printing Total VOC (tons/month)	Printing Total HAPs (tons/month)	Chloroform (HAP,VOC) (tons/month)	Carbon Tetrachloride (HAP,VOC) (tons/month)	Vinyl Chloride (HAP,VOC) (tons/month)	Production Total VOC (tons/month)	Production Total HAPs (tons/month)	Total VOC (tons/month)	Total HAPs (tons/month)
Nov-10	0	0	1.7E-01	0	0	0	4.5E-04	4.5E-04	4.5E-04	1.7E-01	4.5E-04
Dec-10	0	0	2.3E-01	0	0	0	3.7E-04	3.7E-04	3.7E-04	2.3E-01	3.7E-04
Jan-11	0	0	-3.4E-02	0	0	0	5.4E-04	5.4E-04	5.4E-04	-3.3E-02	5.4E-04
Feb-11	0	0	2.0E-01	0	0	0	3.4E-04	3.4E-04	3.4E-04	2.0E-01	3.4E-04
Mar-11	0	0	4.3E-01	0	4.6E-08	1.1E-08	8.1E-04	8.1E-04	8.1E-04	4.3E-01	8.1E-04
Apr-11	0	0	2.8E-01	0	0	0	7.7E-04	7.7E-04	7.7E-04	2.8E-01	7.7E-04
May-11	0	0	1.6E-01	0	6.7E-08	1.6E-08	8.2E-04	8.2E-04	8.2E-04	1.6E-01	8.2E-04
Jun-11	0	0	2.5E-01	0	8.6E-08	2.0E-08	6.6E-04	6.6E-04	6.6E-04	2.5E-01	6.6E-04
Jul-11	0	0	2.1E-01	0	6.3E-08	1.5E-08	3.0E-04	3.0E-04	3.0E-04	2.1E-01	3.0E-04
Aug-11	0	0	4.1E-01	0	5.0E-08	1.1E-08	4.4E-04	4.4E-04	4.4E-04	4.1E-01	4.4E-04
Sep-11	0	6.6E-03	2.3E-01	6.6E-03	6.5E-08	1.5E-08	3.8E-04	3.8E-04	3.8E-04	2.3E-01	7.0E-03
Oct-11	0	0	1.3E-01	0	1.6E-07	3.7E-08	4.3E-04	4.3E-04	4.3E-04	1.3E-01	4.3E-04
12 month total	**0**	**6.6E-03**	**2.7E+00**	**6.6E-03**	**5.4E-07**	**1.2E-07**	**6.3E-03**	**6.3E-03**	**6.3E-03**	**2.7E+00**	**1.3E-02**