



June 4, 2018

Ms. Melanie Smith
State of Delaware – DNREC
Division of Air Quality
100 West Water Street, Suite 6A
Dover DE 19904

Re: Mountaire Farms of Delaware, Inc.
APC-2014/0093-OPERATION (Amendment 3)

Dear Ms. Smith:

Enclosed, please find the application forms and a \$340 check covering the amount for a modification to the current permit for the Hammermills (EU-53). We will be relocating the hammermills and replacing their associated baghouse. The forms attached as are; AQM-1, AQM-2, AQM-4.6, and AQM-5, in addition with Aerscreen, calculation sheets and manufacturer specifications.

Should you have any questions, please do not hesitate to call me at 302-934-3070.

Sincerely,

Austin Pajda
Environmental Compliance Coordinator

Cc: John Wren (Mountaire)
Beth Sise (Mountaire)
Tanya Rogers-Vickers (Mountaire)
Jessica Collins (Mountaire)



Mountaire Farms Inc.

"We measure quality by how well we service our internal and external customers"



DNREC – Division of Air Quality
Application to Construct, Operate, or Modify
Stationary Sources

Administrative Information

One original and one copy of All Application Forms Should Be Mailed To:
Division of Air Quality
100 West Water Street, Suite 6A
Dover, DE 19904

All Checks Should Be Made Payable To:
State of Delaware

<u>Company and Site Information</u>	
1.	Company Name: Mountaire Farms of Delaware, Inc.
2.	Company Mailing Address: PO Box 1320 City: Millsboro State: Delaware Zip Code: 19966
3.	Site Name: Millsboro Complex
4.	Site Mailing Address: <i>(if different from above)</i> City: State: Zip Code:
5.	Physical Location of Site: 29106 John J. Williams Hwy <i>(if different from above)</i> City: Millsboro State: Delaware Zip Code: 19966
6.	Site Billing Address: <i>(if different from above)</i> City: State: Zip Code:
7.	Air Quality Management Facility ID Number: 1000500004
8.	Site NAICS Code: 31165, 311119, 11234 <i>(list all that apply)</i>
9.	Site SIC Code: 2015, 2048, 0254 <i>(list all that apply)</i>
10.	Site Location Coordinates: Latitude: 38 ° 36' 2.3508" Longitude: 75 ° 15' 24.2288"
11.	Is the Facility New or Existing? <input type="checkbox"/> NEW <input checked="" type="checkbox"/> EXISTING
<i>If the Facility is an Existing Facility, Complete the Rest of Question 11. If Not, Proceed to Question 12.</i>	
11.1.	Does the Facility Have Active Air Permits? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
12.	Is this Application For New Equipment or a Modification to Existing Equipment? <input type="checkbox"/> New Equipment <input checked="" type="checkbox"/> Modification of Existing Equipment <input type="checkbox"/> Other (Specify):
<i>If the application is for the modification of existing equipment, complete the rest of Question 12. If not, proceed to Question 13.</i>	



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<u>Company and Site Information</u>	
12.1. Does the Equipment Have an Active Air Permit?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If the equipment has an active air permit, complete the rest of Question 12. If not, proceed to Question 13.</i>	
12.2. Permit Number of Existing Equipment:	APC-2014/0093-OPERATION (Amendment 3)
13. Status of Equipment Being Applied For:	<input checked="" type="checkbox"/> Natural Minor Source <input type="checkbox"/> Synthetic Minor Source <input type="checkbox"/> Major Source <input type="checkbox"/> Federally Enforceable Restrictions
14. Facility Status:	<input checked="" type="checkbox"/> Natural Minor Facility <input type="checkbox"/> Synthetic Minor Facility <input type="checkbox"/> Major Facility
<i>If the facility is a Major Source, complete the rest of Question 14. If not, proceed to Question 15.</i>	
14.1. Responsible Official Name:	Jimmy Paulakuhn
14.2. Responsible Official Title:	VP of Live Operations

<u>Contact Information</u>	
15. Name of Owner or Facility Manager:	Jimmy Paulakuhn
16. Title of Owner or Facility Manager:	VP of Live Operations
17. Permit Contact Name:	Austin Pajda
18. Permit Contact Title:	Environmental Compliance Coordinator
19. Permit Contact Telephone Number:	302-934-3070
20. Permit Contact Fax Number:	
21. Permit Contact E-Mail Address:	apajda@mountaire.com
22. Billing Contact Name:	
23. Billing Contact Title:	
24. Billing Contact Telephone Number:	
25. Billing Contact Fax Number:	
26. Billing Contact E-Mail Address:	

<u>Proposed Construction and Operating Schedule</u>	
27. When Will the Proposed Construction/Installation/Modification Occur:	upon amendment approval
28. Proposed Operating Schedule:	24 hours/day 7 days/week 52 weeks/year
28.1. Is There Any Additional Information Regarding the Operating Schedule?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If YES, complete the rest of Question 28. If NO, proceed to Question 29.</i>	



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Proposed Construction and Operating Schedule

28.2. Describe the Additional Information: **This will be a relocation of the hammermills from the Feed Mill basement and replacement of the control device (baghouse).**

Coastal Zone Information

29. Is the Facility Located in the Coastal Zone? YES NO

If the facility is located in the Coastal Zone complete the rest of Question 29. If not, proceed to Question 30.

29.1. Is a Coastal Zone Permit Required for Construction or Operation of the Source Being Applied for? YES NO

Attach a copy of the Coastal Zone Determination if it has not been previously submitted

If a Coastal Zone Permit is required complete the rest of Question 29. If not, proceed to Question 30.

29.2. Has a Coastal Zone Permit Been Issued? YES NO

Attach a copy of the Coastal Zone Permit if it has not been previously submitted

Local Zoning Information

30. Parcel Zoning: **H-1; Heavy Industrial**

Attach Proof of Local Zoning if it has not been previously submitted

Application Information

31. Is the Appropriate Application Fee Attached? YES NO

32. Is the Advertising Fee Attached? YES NO

For help determining your application and advertising fees see:

<http://www.dnrec.state.de.us/DNREC2000/Library/Fees/DE%20Permit%20Fees.htm>

Attach the appropriate fees. Note that your Application will not be considered complete if the appropriate fees are not included.

33. Is a Cover Letter Describing the Process Attached? YES NO

Attach a brief cover letter describing your Application.

If the Facility is a New Facility complete Question 34. If not, proceed to Question 35.

34. Is a Copy of the Applicant Background Information Questionnaire on Record at the Department? YES NO

If NO, complete the rest of Question 34. If YES, process to Question 35.

34.1 Is a Copy of the Applicant Background Information Questionnaire Attached? YES NO

For a copy of the Applicant Background Information Questionnaire see

<http://www.dnrec.delaware.gov/services/Documents/Chapter79Form.pdf>

Attach a copy of the Applicant Background Information Questionnaire if applicable.

35. Check Which Application Forms are Attached:



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Application Information

- | | | | | | | |
|---|----------------------------------|-----------------------------------|-----------------------------------|---|---|--------------------------------|
| <input checked="" type="checkbox"/> AQM-1 | <input type="checkbox"/> AQM-3.4 | <input type="checkbox"/> AQM-3.9 | <input type="checkbox"/> AQM-3.14 | <input type="checkbox"/> AQM-4.4 | <input type="checkbox"/> AQM-4.9 | <input type="checkbox"/> AQM-6 |
| <input checked="" type="checkbox"/> AQM-2 | <input type="checkbox"/> AQM-3.5 | <input type="checkbox"/> AQM-3.10 | <input type="checkbox"/> AQM-3.15 | <input type="checkbox"/> AQM-4.5 | <input type="checkbox"/> AQM-4.10 | |
| <input type="checkbox"/> AQM-3.1 | <input type="checkbox"/> AQM-3.6 | <input type="checkbox"/> AQM-3.11 | <input type="checkbox"/> AQM-4.1 | <input checked="" type="checkbox"/> AQM-4.6 | <input type="checkbox"/> AQM-4.11 | |
| <input type="checkbox"/> AQM-3.2 | <input type="checkbox"/> AQM-3.7 | <input type="checkbox"/> AQM-3.12 | <input type="checkbox"/> AQM-4.2 | <input type="checkbox"/> AQM-4.7 | <input type="checkbox"/> AQM-4.12 | |
| <input type="checkbox"/> AQM-3.3 | <input type="checkbox"/> AQM-3.8 | <input type="checkbox"/> AQM-3.13 | <input type="checkbox"/> AQM-4.3 | <input type="checkbox"/> AQM-4.8 | <input checked="" type="checkbox"/> AQM-5 | |

36. Check Which Documents are Attached:

- | | |
|---|---|
| <input type="checkbox"/> Coastal Zone Determination | <input type="checkbox"/> Claim of Confidentiality |
| <input type="checkbox"/> Coastal Zone Permit | <input checked="" type="checkbox"/> Manufacturer Specification(s) |
| <input type="checkbox"/> Proof of Local Zoning | <input type="checkbox"/> Material Safety Data Sheets (MSDSs) |
| <input checked="" type="checkbox"/> Application Fee | <input checked="" type="checkbox"/> Supporting Calculations |
| <input checked="" type="checkbox"/> Advertising Fee | <input checked="" type="checkbox"/> Descriptive Cover Letter |
| <input type="checkbox"/> Applicant Background Information Questionnaire | <input type="checkbox"/> Other (Specify): |

Confidentiality Information

37. Do You Consider Any of the Information Submitted With this Application Confidential? YES NO

For help on how to submit a confidentiality claim see

<http://regulations.delaware.gov/register/december2011/final/15%20DE%20Reg%20864%2012-01-11.htm>

If a Claim of Confidentiality is made it MUST meet the requirements of Section 6 of DNREC's Freedom of Information ("FOIA") Regulation at the time the Application is submitted.

Signature Block

I, the undersigned, hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all of its attachments as to the truth, accuracy, and completeness of this information. I certify based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete. By signing this form, I certify that I have not changed, altered, or deleted any portions of this application. I acknowledge that I cannot commence construction, alteration, modification or initiate operation until I receive written approval (i.e. permit, registration, or exemption letter) from the Department. I acknowledge that I may be required to perform testing of the equipment to receive construction or operation approval, and that if I do not receive approval to construct or operate that I may appeal the decision.

Jimmy Paulakuhn

Owner or Operator

Signature of Owner or Operator

6/4/2018
Date

One Original and One Copy of All Application Forms Should Be Mailed To:
Division of Air Quality
100 W. Water Street, Suite 6A
Dover, Delaware 19904

All Checks Should Be Made Payable To:
State of Delaware

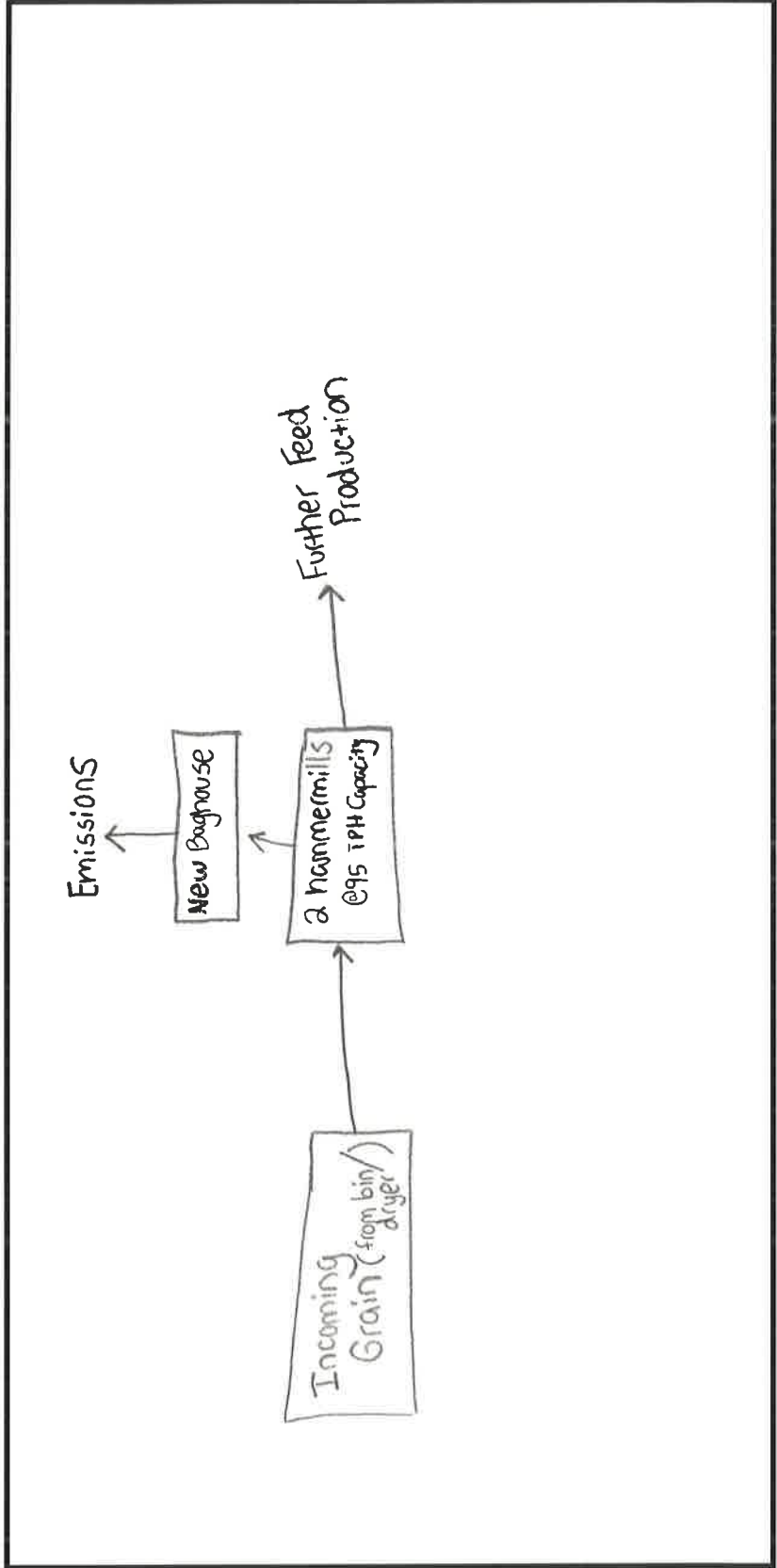


**DNREC – Air Quality Management Section
Application to Construct, Operate, or Modify
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Form AQM-2
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Process Flow Diagram

Sketch the Process Flow Diagram for the equipment or process being applied for. Include each emission unit and control device (even existing emission units that will not be modified by this application). You may identify each emission unit with a simple shape. Label each emission unit and control device with a unique identifier. Show the relationship between each emission unit and/or control device by drawing arrows between them to indicate the flow of air pollutants. List which application forms are included for each emission unit or control device below the shape representing each emission unit or control device. See <http://www.delaware.gov/reg2/default.htm> for example Process Flow Diagrams for common processes. If you already have a Process Flow Diagram for the equipment or process being applied for, you may attach it to the application instead of using this form.





Baghouse Application

If you are using this form electronically, press F1 at any time for help

<u>General Information</u>	
1.	Facility Name: Mountaire Farms of Delaware, Inc.
2.	Equipment ID Number: EU-53
3.	Manufacturer: AirLanco
4.	Model: 60 Series 81AST10
5.	Serial Number: TBD
6.	Is the Baghouse Insulated? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
7.	Design Minimum Operating Temperature: N/A °F
8.	Design Maximum Operating Temperature: N/A °F
9.	Are Temperature Controls Provided? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If Yes, complete the rest of Question 9. If no, proceed to Question 10.</i>	
9.1.	Describe the Temperature Controls:
10.	Air Flow Through Baghouse: <input type="checkbox"/> Forced <input checked="" type="checkbox"/> Induced <input type="checkbox"/> Other (Specify):
11.	Direction of Flow Through Filters: <input type="checkbox"/> Inside Out <input checked="" type="checkbox"/> Outside In
12.	Particulate Removal Efficiency: 99.9 %
Attach the Manufacturer's Specification Sheet for the Baghouse and Particle Size Removal Efficiency Curve and basis of determination.	

<u>Compartment Information</u>	
13.	Number of Compartments: 1
14.	Number of Filters (Bags) Per Compartment: 81
15.	Can the Compartments be Isolated for Replacement or Repair? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

<u>Gas Stream Information</u>	
16.	Maximum Inlet Volumetric Gas Flow Rate: 8,200 acfm at 70 °F
17.	Maximum Outlet Volumetric Gas Flow Rate: 8,200 acfm at 70 °F
18.	Dew Point at Maximum Moisture Content of Gas: unknown °F



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Gas Stream Information

19. pH of Gas Handled:
20. Dust Characteristics: Sticky
 (Check All That Apply) Wet
 Corrosive
 Dry
 Other (Specify):

Contaminant Information

21. Percent of Each Contaminant in the Waste Gas and Removal Efficiency
 If more than five Contaminants are present, attach additional copies of this page as needed.

	<u>Contaminant Name</u>	<u>Contaminant CAS Number</u>	<u>Percent of Waste Gas</u>	<u>Removal Efficiency</u>
21.1.	n/a		%	%
21.2.			%	%
21.3.			%	%
21.4.			%	%
21.5.			%	%

Fabric Filter (Bag) Information

22. Fabric Type: Felted Membrane Ceramic Cartridge
 Woven PTFE Membrane Other (Specify):
 Felted-Woven Sintered Metal
23. Fabric Material: **polyester**
24. Maximum Continuous Filter Operating Temperature: **ambient °F**
25. Clean Fabric Permeability: scfm/ft² at ΔP inches of water
26. Fabric Filter (Bag) Diameter or Width: **6.3 inches**
27. Fabric Filter (Bag) Length: **120 inches**
28. Effective Area Per Filter: **2360 square inches**
29. Minimum Effective Air to Cloth Ratio: 10:1 **feet/min**
30. Maximum Effective Air to Cloth Ratio: 10:1 **feet/min**
31. Design Pressure Drop Across Baghouse: 0-10 **inches water**
32. Describe Determining Factor Fabric Filter Changing/Replacement: **Pressure Drop**

Attach the Manufacturer's Specification Sheet for the Fabric Filters (Bags).



Filter Cleaning Information

33. Filter Cleaning Method: Manual Cleaning Bag Collapse Reverse Air Jet
 Mechanical Shakers Sonic Cleaning Pulse Jet
 Pneumatic Shakers Reverse Air Flow Other (Specify):

If Reverse Air Jet or Pulse Jet is used, complete the rest of Question 33. If not, proceed to Question 34.

33.1. Air Pressure: **90-100 psi**

33.2. Describe How Air Is Supplied to System: **Air compressor**

34. Describe How Filter Cleaning Is Initiated: Manual Pressure Drop
 Timer Other (Specify):

Hopper Information

35. Is the Hopper Heated? YES NO

36. Is there a Hopper Vibrator? YES NO

37. Describe How Collected Material is Treated or Disposed of:

Stack Information

38. Emission Point Name: **EU-53**

38.1. Stack Height Above Grade: **8 feet**

38.2. Stack Exit Diameter: **1.3 feet**
(Provide Stack Dimensions If Rectangular Stack)

38.3. Is a Stack Cap Present? YES NO

38.4. Stack Configuration: Vertical Horizontal Downward-Venting
(check all that apply) Other (Specify):

38.5. Stack Exit Gas Temperature: **ambient °F**

38.6. Stack Exit Gas Flow Rate: **8,200 ACFM**

38.7. Distance to Nearest Property Line: **225 feet**

38.8. Describe Nearest Obstruction: **New hammermill bins**

38.9. Height of Nearest Obstruction: **100 feet**

38.10. Distance to Nearest Obstruction: **10 feet**



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<u>Stack Information</u>	
38.11. Are Stack Sampling Ports Provided?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

<u>Monitoring and Alarm Information</u>				
39. Are There Any Alarms You Would Like the Department to Consider When Drafting the Permit? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
<i>If YES, complete the rest of Question 39. If NO, proceed to Question 40.</i>				
39.1. Describe the System Alarm(s):				
If there are more than five alarms, attach additional copies of this page as needed.				
	Operating Parameter Monitored	Describe Alarm Trigger	Monitoring Device or Alarm Type	Does the Alarm Initiate an Automated Response?
39.1.1.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:
39.1.2.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:
39.1.3.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:
39.1.4.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:
39.1.5.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:

<u>Additional Information</u>	
40. Is There Any Additional Information Pertinent to this Application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If YES, complete the rest of Question 40.</i>	
40.1. Describe:	



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Emissions Information Application

If you are using this form electronically, press F1 at any time for help

<u>Process Information</u>	
1.	Number of Individual Pieces of Process Equipment in Process: 1
2.	Number of Individual Control Devices in Process: 1

<u>Emissions Information for First Emission Point/Stack</u>	
3.	Emission Point Name: Hammermills (EU-53)
4.	Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack: EU-53
5.	Pollutant Emissions

If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.

Pollutant Name (Specify VOCs and HAPs Individually in 5.10 through 5.18)	CAS Number (Not required for 5.1 through 5.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
5.1. Particulate Matter (PM)		1.14 lbs/hour	1.14 lbs/hour	4.993 tons/year	4.993 tons/year
5.2. PM ₁₀		1.14 lbs/hour	1.14 lbs/hour	4.993 tons/year	4.993 tons/year
5.3. PM _{2.5}		lbs/hour	lbs/hour	tons/year	tons/year
5.4. Sulfur Oxides (SO _x)		lbs/hour	lbs/hour	tons/year	tons/year
5.5. Nitrogen Oxides (NO _x)		lbs/hour	lbs/hour	tons/year	tons/year
5.6. Carbon Monoxide (CO)		lbs/hour	lbs/hour	tons/year	tons/year
5.7. Total Volatile Organic Compounds (VOCs)		lbs/hour	lbs/hour	tons/year	tons/year
5.8. Total Hazardous Air Pollutants (HAPs)		lbs/hour	lbs/hour	tons/year	tons/year



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<u>Emissions Information for First Emission Point/Stack</u>				
	lbs/hour	lbs/hour	lbs/hour	tons/year
5.9. CO ₂				tons/year
5.10. CO _{2e}				tons/year
5.11.				tons/year
5.12.				tons/year
5.13.				tons/year
5.14.				tons/year
5.15.				tons/year
6. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:				
Attach the Basis of Determination or Calculations for each Emission Rate provided above.				

<u>Emissions Information for Second Emission Point/Stack</u>					
7. Emission Point Name:					
8. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack:					
9. Pollutant Emissions					
If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.					
Pollutant Name (Specify VOCs and HAPs Individually in 9.10 through 9.18)	CAS Number (Not required for 9.1 through 9.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
9.1. Particulate Matter (PM)		lbs/hour	lbs/hour	tons/year	tons/year
9.2. PM ₁₀		lbs/hour	lbs/hour	tons/year	tons/year
9.3. PM _{2.5}		lbs/hour	lbs/hour	tons/year	tons/year



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<u>Emissions Information for Second Emission Point/Stack</u>				
	lbs/hour	lbs/hour	lbs/hour	tons/year
9.4. Sulfur Oxides (SO _x)				tons/year
9.5. Nitrogen Oxides (NO _x)				tons/year
9.6. Carbon Monoxide (CO)				tons/year
9.7. Total Volatile Organic Compounds (VOCs)				tons/year
9.8. Total Hazardous Air Pollutants (HAPs)				tons/year
9.9. CO ₂				tons/year
9.10. CO _{2e}				tons/year
9.11.				tons/year
9.12.				tons/year
9.13.				tons/year
9.14.				tons/year
9.15.				tons/year
10. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:				
Attach the Basis of Determination or Calculations for each Emission Rate provided above.				

<u>Emissions Information for Third Emission Point/Stack</u>
11. Emission Point Name:
12. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack:
13. Pollutant Emissions
If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.



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Emissions Information for Third Emission Point/Stack					
Pollutant Name (Specify VOCs and HAPs Individually in 13.10 through 13.18)	CAS Number (Not required for 13.1 through 13.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
13.1. Particulate Matter (PM)		lbs/hour	lbs/hour	tons/year	tons/year
13.2. PM ₁₀		lbs/hour	lbs/hour	tons/year	tons/year
13.3. PM _{2.5}		lbs/hour	lbs/hour	tons/year	tons/year
13.4. Sulfur Oxides (SO _x)		lbs/hour	lbs/hour	tons/year	tons/year
13.5. Nitrogen Oxides (NO _x)		lbs/hour	lbs/hour	tons/year	tons/year
13.6. Carbon Monoxide (CO)		lbs/hour	lbs/hour	tons/year	tons/year
13.7. Total Volatile Organic Compounds (VOCs)		lbs/hour	lbs/hour	tons/year	tons/year
13.8. Total Hazardous Air Pollutants (HAPs)		lbs/hour	lbs/hour	tons/year	tons/year
13.9. CO ₂		lbs/hour	lbs/hour	tons/year	tons/year
13.10. CO _{2e}		lbs/hour	lbs/hour	tons/year	tons/year
13.11.		lbs/hour	lbs/hour	tons/year	tons/year
13.12.		lbs/hour	lbs/hour	tons/year	tons/year
13.13.		lbs/hour	lbs/hour	tons/year	tons/year
13.14.		lbs/hour	lbs/hour	tons/year	tons/year
13.15.		lbs/hour	lbs/hour	tons/year	tons/year
14. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:					
Attach the Basis of Determination or Calculations for each Emission Rate provided above.					



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Emissions Information for Fourth Emission Point/Stack						
15.	Emission Point Name:					
16.	Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack:					
17.	Pollutant Emissions					
If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.						
Pollutant Name (Specify VOCs and HAPs Individually in 17.10 through 17.18)	CAS Number (Not required for 17.1 through 17.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions	
17.1. Particulate Matter (PM)		lbs/hour	lbs/hour	tons/year	tons/year	
17.2. PM ₁₀		lbs/hour	lbs/hour	tons/year	tons/year	
17.3. PM _{2.5}		lbs/hour	lbs/hour	tons/year	tons/year	
17.4. Sulfur Oxides (SO _x)		lbs/hour	lbs/hour	tons/year	tons/year	
17.5. Nitrogen Oxides (NO _x)		lbs/hour	lbs/hour	tons/year	tons/year	
17.6. Carbon Monoxide (CO)		lbs/hour	lbs/hour	tons/year	tons/year	
17.7. Volatile Organic Compounds (VOCs)		lbs/hour	lbs/hour	tons/year	tons/year	
17.8. Total Hazardous Air Pollutants (HAPs)		lbs/hour	lbs/hour	tons/year	tons/year	
17.9. CO ₂		lbs/hour	lbs/hour	tons/year	tons/year	
17.10. CO _{2e}		lbs/hour	lbs/hour	tons/year	tons/year	
17.11.		lbs/hour	lbs/hour	tons/year	tons/year	
17.12.		lbs/hour	lbs/hour	tons/year	tons/year	
17.13.		lbs/hour	lbs/hour	tons/year	tons/year	
17.14.		lbs/hour	lbs/hour	tons/year	tons/year	
17.15.		lbs/hour	lbs/hour	tons/year	tons/year	



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Stationary Sources)**

Emissions Information for Fourth Emission Point/Stack

18. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

If there are more than four Emission Points/Stacks, attach additional copies of this form as needed.

Overall Process Emissions

19. Pollutant Emissions

If more than 15 pollutants are emitted from this Process, attach additional copies of this page as needed.

Pollutant Name (Specify VOCs and HAPs Individually in 19.10 through 19.18)	CAS Number (Not required for 19.1 through 19.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
19.1. Particulate Matter (PM)		1.14 lbs/hour	1.14 lbs/hour	4.993 tons/year	4.993 tons/year
19.2. PM ₁₀		lbs/hour	lbs/hour	tons/year	tons/year
19.3. PM _{2.5}		lbs/hour	lbs/hour	tons/year	tons/year
19.4. Sulfur Oxides (SO _x)		lbs/hour	lbs/hour	tons/year	tons/year
19.5. Nitrogen Oxides (NO _x)		lbs/hour	lbs/hour	tons/year	tons/year
19.6. Carbon Monoxide (CO)		lbs/hour	lbs/hour	tons/year	tons/year
19.7. Total Volatile Organic Compounds (VOCs)		lbs/hour	lbs/hour	tons/year	tons/year
19.8. Total Hazardous Air Pollutants (HAPs)		lbs/hour	lbs/hour	tons/year	tons/year
19.9. CO ₂		lbs/hour	lbs/hour	tons/year	tons/year
19.10. CO _{2e}		lbs/hour	lbs/hour	tons/year	tons/year
19.12.		lbs/hour	lbs/hour	tons/year	tons/year



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Stationary Sources)**

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Overall Process Emissions				
	lbs/hour	lbs/hour	tons/year	tons/year
19.13.				
19.14.				
19.15.				
20. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:				
Attach the Basis of Determination or Calculations for each Emission Rate provided above.				

Minor New Source Review Information

21. Does the Process Have the Potential to Emit More Than Five Tons Per Year of Any Pollutant? YES NO

22. Is the Source New or Existing? NEW EXISTING

See Question 11 of AQM-1

If the Process has the Potential to Emit more than five tons per year of any pollutant, and is a New Source, a Control Technology Analysis pursuant to Regulation No. 1125 Section 4 must be conducted and attached to this application.

Major New Source Review Information

23. Does the Process Have the Potential to Emit More Than the Significance Level for Any Pollutant? (Check All That Apply)

- Greater Than 25 Tons Per Year of Particulate Matter (PM)
- Greater Than 15 Tons Per Year of PM₁₀
- Greater Than 10 Tons Per Year of PM_{2.5}
- Greater Than 40 Tons Per Year of Sulfur Dioxide(SO₂)
- Greater Than 25 Tons Per Year of Nitrogen Oxides (NO_x) in New Castle and Kent County
- Greater Than 100 Tons Per Year of Nitrogen Oxides (NO_x) in Sussex County
- Greater Than 100 Tons Per Year of Carbon Monoxide (CO)
- Greater Than 25 Tons Per Year of Total Volatile Organic Compounds (VOCs) in New Castle and Kent County
- Greater Than 50 Tons Per Year of Total Volatile Organic Compounds (VOCs) in Sussex County
- Greater Than 75,000 Tons Per Year of Equivalent Carbon Dioxide (CO_{2e})



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If the Process has the Potential to Emit greater than any of the amounts listed above 7 DE Admin. Code 1125 Sections 2 and/or 3 apply. Contact the Department at (302) 323-4542 or (302) 739-9402 for additional information

Additional Information

24. Is There Any Additional Information Pertinent to this Application? YES NO

If YES, complete the rest of Question 24.

24.1. Describe:



DNREC Division of Air Quality

Return to:
Division of Air Quality
State Street Commons
100 W. Water Street, Suite 6A
Dover, Delaware 19904

AERSCREEN Input Form

Complete one form for each source at the facility.

Section 1 - Facility Information

Business Name: Mountaire Farms of Delaware, Inc.

Facility/Registered Entity Name (if different): _____

Current Permit Number (if applicable): APC-2014/0093

Address of Site: 29106 John J Williams Hwy

City: Millsboro Zip Code: 19966

Contact Person Details: Name: _____ Title: _____
Email: _____ Phone: _____

Section 2 - Emission Point Characteristics

Section 2a - Stack or Release Type

Vertical Stack: Complete Section 2b Volume: Complete Section 2c
 Capped Stack: Complete Section 2b Area: Complete Section 2d
 Horizontal Stack: Complete Section 2b
 Flare: Complete Sections 2b and 2e

Description of the Source: HAMMERMILLS

Source ID: EU-53 (HAMMERMILL BAGHOUSE)

Source Coordinates (for all sources): Latitude 38.599962 Longitude -75.262304

Distance From Source to the Nearest Property Line: (ft) 225

Section 2b - For Stacks/Point Sources Only:

Stack Height (Above Ground): (ft) POINT
 Inside Stack Diameter: (ft) 8
 Stack Exhaust Temperature: (°F) 1.3
 Stack Exit Flow Rate OR Velocity: (indicate if ambient)
 Exit Velocity: (fps) ambient
 OR
 Flow Rate: (ACFM) 8,200

Section 2c - For Volume Sources Only:

Initial Lateral Dimension of the Volume Source: (ft) VOLUME
 Initial Vertical Dimension of the Volume Source: (ft) _____
 Centerpoint Height Above Ground: (ft) _____

Section 2d - For Area Sources Only:

Release Height (Above Ground): (ft) AREA
 Area Source Length of Long Side (if Rectangular Area Source): (ft) _____
 Area Source Length of Short Side (if Rectangular Area Source): (ft) _____
 Radius of Circle (if Circular Area Source): (ft) _____
 Orientation Angle (if applicable): (Degrees) _____
 Initial Vertical Dimension of the Plume (if applicable): (ft) _____

Section 2e - For Flares Only:

Heat Release Rate: cal/s FLARE
 Radiative Heat Loss Fraction (if known): _____

Section 3 - Emission Rates:

	Carbon Monoxide (CO)	Nitrogen Oxides (NOx)	Particulate Matter (PM _{2.5})	Particulate Matter (PM ₁₀)	Sulfur Dioxide (SO ₂)	Lead (Pb)
Emission Rate - Maximum Hourly: (lb/hr)						
Emission Rate - Maximum 8 Hour: (lbs/8-hours)						
Emission Rate - Maximum Daily: (lbs/day)						
Emission Rate - Annual: (tons/yr)						
Emission Rate - Maximum 3 Month Average: (lbs/3 months)						

Include an explanation as to how emissions were determined.

Section 4 - Building/Downwash Parameters (if applicable, only applies to point sources):

Building Height: (ft) 100
 Building Length: (ft) 24
 Building Width: (ft) 24
 Distance Between Stack and Center of the Building: (ft) 22
 Maximum Building Dimension Angle to True North: degrees 270
 Direction of Stack From Center of the Building: degrees 90

SHED

If the applicant has a Building Profile Input Program for Plume Rise Model Enhancements (BPIPRM), this should be provided to the Department instead of the parameters above.

Section 5 - Surface Characteristics

If the applicant has an existing AERSURFACE output file for surface characteristics, this should be provided to the Department instead of the parameters below.

If using the AERMET seasonal Tables:

Surface Profile Type: _____ (Select from the drop down list)
 Climate Profile: Dry (If Wet or Average should be used, please explain)

If using user defined values:

Surface Roughness: _____
 Bowen Ratio: _____
 Albedo: _____



5/31/2018

AIRLANCO QUOTE# 008651 ROUTH & ASSOCIATES INC.

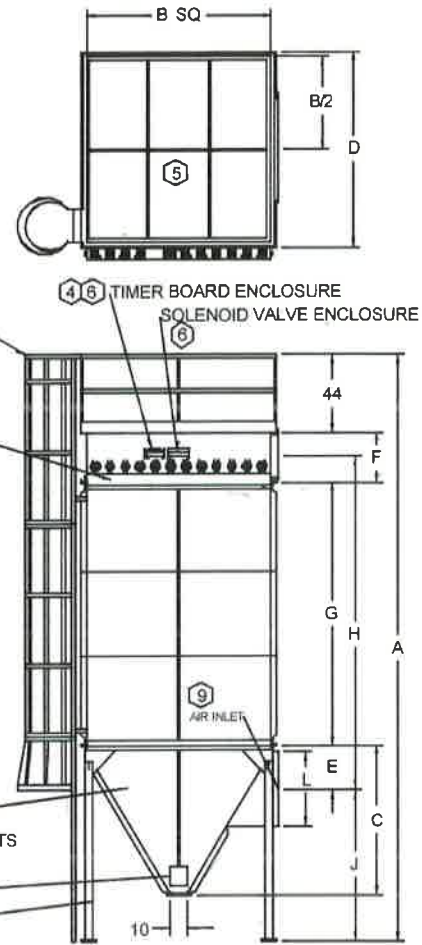
1 EA - 81AST10 STYLE II FILTER - 1,328 SQUARE FT. OF CLOTH -8,200 CFM OF
GRAIN DUST - 6.17:1 AIR TO CLOTH RATIO - 16oz. SINGED POLYESTER BAGS

AIRLANCO AIR QUALITY ASSURANCE

Based on 2 micron and larger dust particles, AIRLANCO guarantees their baghouse (fabric filters) when properly applied and maintained, to have a 99.99% or better mass efficiency rating on the dust laden incoming gas stream. As a general statement, emissions will not exceed .02 grains of dry soil particulate matter per dry standard cubic foot of air.

Matthew Liberty
Engineering Manager

AST FILTER SERIES 60 TOP REMOVAL PULSE JET FILTER



NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DESIGNED FOR 17" W.G. OPERATING PRESSURE.
3. STANDARD CONSTRUCTION IS HR CARBON STEEL WITH REINFORCING RIBS AS REQUIRED.
4. CLEANING MECHANISM REQUIRES 90-100 PSIG OF CLEAN, DRY PLANT AIR, SEE "CFM" SCHEDULE AND 110 VOLT 1 PHASE 60 Hz POWER SUPPLY.
5. TOP DOORS ARE LIFT-OFF STYLE.
6. SOLENOID VALVES AND SOLID STATE TIMER ARE MOUNTED IN NEMA 4 ENCLOSURES.
7. DIFFERENTIAL PRESSURE GAUGE KIT IS INCLUDED.
8. FILTER MEDIA IS 16 OZ SINGED POLYESTER ON GALVANIZED STEEL CAGES. ALSO AVAILABLE WITH CARTRIDGE ELEMENTS. CONSULT FACTORY.
9. INLET SIZED FOR SPECIFIC AIR FLOW IS STANDARD. SCHEDULED INLET IS MAXIMUM FOR FILTER SIZE AT 10:1 AIR TO CLOTH RATIO. OTHER OPTIONAL INLETS ARE AVAILABLE.
10. STANDARD FINISH IS AIRLANCO BLUE ACRYLIC ENAMEL.
11. STYLE II OAH INCLUDES 1/4" FOR SAFETY GRATE.

MODEL	CLOTH AREA SQ.FT.	CAN VEL FT/MIN	CLNG CFM	A	A (ARRG II)	B	C	D	MAX E	F	G	H	J	MAX L	WEIGHT
64AST8	838	421	11.32	251 15/16	172 7/16	69 1/2	53 3/4	79 1/2	15 1/2	28 3/16	100	129 3/16	64 1/4	23	2,715
64AST10	1050	527	14.17	275 15/16	196 7/16	69 1/2	53 3/4	79 1/2	16 1/2	28 3/16	124	154 3/16	63 1/4	25	2,985
64AST12	1261	633	17.02	299 15/16	220 7/16	69 1/2	53 3/4	79 1/2	18	28 3/16	148	179 11/16	61 3/4	28	3,280
81AST8	1061	424	14.32	259 13/16	172 7/16	78	61 5/8	88	16 1/2	28 3/16	100	130 3/16	71 1/8	25	3,390
81AST10	1328	531	17.93	283 13/16	196 7/16	78	61 5/8	88	18	28 3/16	124	155 11/16	69 5/8	28	3,730
81AST12	1596	638	21.54	307 13/16	220 7/16	78	61 5/8	88	19 1/2	28 3/16	148	181 3/16	68 1/8	31	4,100
100AST8	1310	427	17.69	267 3/16	172 7/16	86 1/2	69	96 1/2	18	28 3/16	100	131 11/16	77	28	4,250
100AST10	1640	535	22.14	291 3/16	196 7/16	86 1/2	69	96 1/2	20	28 3/16	124	157 11/16	75	32	4,675
100AST12	1970	643	26.80	315 3/16	220 7/16	86 1/2	69	96 1/2	21 1/2	28 3/16	148	183 3/16	73 1/2	35	5,145
121AST8	1585	430	21.40	279 1/16	176 7/16	95	76 7/8	105	19 1/2	32 3/16	100	135 3/16	83 3/8	31	5,325
121AST10	1984	538	26.79	303 1/16	200 7/16	95	76 7/8	105	21 1/2	32 3/16	124	161 3/16	81 3/8	35	5,860
121AST12	2384	646	32.18	327 1/16	224 7/16	95	76 7/8	105	23	32 3/16	148	186 11/16	79 7/8	38	6,445
144AST8	1886	431	25.47	296 7/16	176 7/16	103 1/2	84 1/4	113 1/2	21	32 3/16	100	136 11/16	89 1/4	34	6,675
144AST10	2362	540	31.88	310 7/16	200 7/16	103 1/2	84 1/4	113 1/2	23	32 3/16	124	162 11/16	87 1/4	38	7,340
144AST12	2837	649	38.30	334 7/16	224 7/16	103 1/2	84 1/4	113 1/2	25	32 3/16	148	188 11/16	85 1/4	42	8,075
169AST8	2214	433	29.89	293 3/4	176 7/16	112	91 9/16	122	22 1/2	32 3/16	100	138 3/16	95 1/16	37	8,350
169AST10	2772	542	37.42	317 3/4	200 7/16	112	91 9/16	122	24 1/2	32 3/16	124	164 3/16	93 1/16	41	9,185
169AST12	3329	651	44.95	341 3/4	224 7/16	112	91 9/16	122	26 1/2	32 3/16	148	190 3/16	91 1/16	45	10,100

10/5/2005

Table 9.9.1-2. PARTICULATE EMISSION FACTORS FOR GRAIN PROCESSING FACILITIES^a

Type of Facility/ Emission Source	Type of Control	Filterable ^b				Condensable PM ^c			EMISSION FACTOR RATING
		PM	EMISSION FACTOR RATING	PM-10 ^d	EMISSION FACTOR RATING	Inorganic	Organic	Total	
<u>Animal feed mills</u> Grain receiving (SCC 3-02-008-02)	None	0.017 ^e	E	0.0025 ^e	E				
Grain cleaning (SCC 3-02-008-07)	Cyclone	(f)		(f)					
Storage	None	ND		ND					
<u>Grain milling</u> (SCC 3-02-008-15)									
Hammermill (SCC 3-02-008-17)	Cyclone	0.067 ^h	E	(g)					
	Baghouse	0.012 ^j	E	(v)					
	Cyclone	0.15 ^k	E	(g)					
Flaker (SCC 3-02-008-18)	Cyclone	0.024 ^k	E	(g)					
Grain cracker (SCC 3-02-008-19)	Cyclone								
Mixer	None	ND		ND					
Conditioning	None	ND		ND					
<u>Pelletizing</u> Pellet cooler ^m (SCC 3-02-008-16)	Cyclone	0.36 ⁿ	E	(g)					
	High efficiency cyclone ^r	0.15 ^q	E	(g)					
Feed shipping (SCC 3-02-008-03)	None	0.0033 ^e	E	0.0008 ^e					
<u>Wheat flour mills</u> Grain receiving (SCC 3-02-007-31)	None	(f)		(f)					
Grain handling (SCC 3-02-007-32) (legs, belts, etc.)	None	(f)		(f)					

Hammermills EU 53

Hammermill #1 & #2 rate(tph): 95
Eqpt hrs(24 hr/day, 365 day/yr): 8760
AP-42 PM factor(table 9.9.1-2)(#/ton): 0.012

$PM-10 = 0.012 \text{ lb/ton} * 95 \text{ tph} * 8760 \text{ hr/yr} * \frac{1}{2000} \text{ lbs} = 4.99 \text{ tpy PM-10}$

Pollutant	<u>Hammermill (using maximum hours)</u>		Hourly Emissions <u>lb/hr</u>	PTE <u>tons/yr</u>
	Emission Factor <u>#/ton</u>			
PM-10	0.012		1.14	4.9932
PM-2.5	Not Available			

