### PART I - ACCEPTANCE CHECKLIST

**Acknowledgement Letter:**
- ☐ Already Sent
- ☐ Please Send

**Initial Event(s):**
- ☐ TV-Ack. Complete
- ☐ TV-Ack./Incomplete add info
- ☐ State Ack. Letter due
- ☐ State App. not accepted – add info request

**Fee Information:**
- ☐ PSD or NSR/NAA $14,475
- ☐ PSD and NSR/NAA $28,153
- ☐ TV Greenfield $ 9,561
- ☐ TV $ 929
- ☐ Ownership Change $60, 50, $25
- ☐ Renewal/Name Change – NA

**Initial Amount Received:**

**Additional Amount Due:**

---

### PART II - IBEAM UPDATES

**Application Type:**
- ☐ Additional Permit
- ☐ Administrative Amendment
- ☐ Appeal
- ☐ Greenfield Facility
- ☐ Last GACT/Toxics
- ☐ Last MACT/Toxics
- ☐ Modification
- ☐ Name Change
- ☐ New Permit
- ☐ Ownership Change
- ☐ Renewal
- ☐ Renewal w/Modification

**Permit Application Schedule:**
- ☐ Appeal
- ☐ Expedited State
- ☐ Director Administrative Amendment
- ☐ PSD
- ☐ TV – State Only
- ☐ TV – Expedited
- ☐ TV – Greenfield
- ☐ TV – Renewal
- ☐ TV – Reopen for Cause
- ☐ TV – Administrative
- ☐ TV – Ownership Change
- ☐ TV – 1st Time

---

### PART III - COMPLETENESS CHECKLIST

- ☐ Required Application Forms Submitted and Completed
- ☐ Supporting Materials & Calculations Received
- ☐ PE Seal (If 15A NCAC 2Q .0112)
- ☐ Modeling Protocol Acceptance
- ☐ Confirmation of Pollutants Modeled
- ☐ ES Form (Significant Modifications)

---

### PART IV - GENERAL COMMENTS

_Polymer injection into a centrifuge device.
No permits required for this process._

(YP)

---

### PART V - SUPERVISOR REVIEW CHECKLIST

**TVEE Updated (by Engineer):**

**TVEE Verified:**

**Supervisor:**

**Chief:**

---

### PART VI - CLOSEOUT INFORMATION

**Regulations Applicable to This Application (Indicate all new regulations):**
- ☐ NESHAPS/MACT
- ☐ NESHAPS/GACT
- ☐ NSPS
- ☐ 2D .1100
- ☐ 2Q .0711
- ☐ 2Q .0705 Last MACT/Toxics
- ☐ RACT/LAER Added Fee*

*Notify Conner Horne*

**Permit Class Information**

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>Title V</td>
</tr>
<tr>
<td>Syn. Minor</td>
<td>Title V</td>
</tr>
<tr>
<td>Proh. Small</td>
<td>General</td>
</tr>
</tbody>
</table>

**HAP Major Status (after):**
- ☐ Major
- ☐ Minor
- ☐ Not Determined

**PSD or NSR Status (after):**
- ☐ Major
- ☐ Minor

**Miscellaneous:**
- ☐ Multiple Permits at Facility
- ☐ Multi-Site Permit
- ☐ Recycled Oil Condition

**Permit Dates**
- Issue: __________
- Effective: __________
- Expiration: __________

**IBEAM Closed Out By:**

**Permit Number:**

**Revision Number:**

**Public Notice Published**

**Public Notice Affidavit (if not notified via DAQ Website)**

**Document Manager Updated by Engineer:**

**Date:**
August 28, 2017

Mr. Matt Szambelan
Plant Manager
Enviva Pellets Ahoskie, LLC
142 NC Route 561 East
Ahoskie, NC 27910

SUBJECT: Permit Applicability Determination
Applicability Determination Application No. 3105
Enviva Pellets Ahoskie, LLC
Ahoskie, Hertford County
Facility ID No. 4600107
Permit No. 10121T04

Dear Mr. Szambelan:

The Division of Air Quality received your application on August 14, 2017 requesting that this Office determine whether an Air Quality Permit is necessary for the polymer injection operation into the centrifuge, which removes wood fiber from the recycle water of the wet electrostatic precipitator (ID No. CD-WESP). This applicability determination is to evaluate permit applicability of combusting wood fiber for the dryer (ID No. ES-DRYER) after the polymer injection. Because your facility regularly burns recycled wood fiber, the DAQ reviewed permit applicability of the emissions from the wood combustion which may contain the polymer.

In light of the information provided, personnel of the Division of Air Quality have reviewed your letter relative to applicability to Air Quality Permits, and our determinations are listed as follows:

1. According to the Safety Data Sheets (SDS) provided, both types of polymer (ChemTreat P816 and ChemTreat S102) appeared to be water based products indicating % VOC is “non-detectable”. Therefore, a minimum increase in VOC is expected by the polymer injection.

2. The SDS indicated that ChemTreat P816 contains the following components:
   - Petroleum distillate hydrotreated light (CAS# 64742-47-8)
   - Alcohols (C19-16) ethoxylated (CAS# 68002-97-1)
   - Alcohols (C12-16) ethoxylated (CAS#68551-12-2)
   - Ethoxylated fatty amine (CAS# 26635-93-8)
   - Ammonium Acetate (CAS# 631-61-8)
None of the components above is listed in the EPA's regulated hazardous air pollutants or NC DAQ's toxic air pollutants per 15A NCAC 02Q.0711. Therefore, they are not subject to the HAPs/TAPs emissions.

3. The SDS indicated that ChemTreat S102 contains the following components:
   - Aluminum chlorohydrate (CAS# 12042-91-0)
   - Sodium chloride (CAS# 7647-14-5)

   Neither of these components is listed in the EPA's regulated hazardous air pollutants or NC DAQ's toxic air pollutants per 15A NCAC 02Q.0711. Therefore, they are not subject to the HAPs/TAPs emissions.

As a result, this Office has determined that an Air Quality Permit is not required for the combustion of the wood fiber after the polymer injection as long as the facility uses one of the products that is mentioned above. It should be noted that this exemption from the permitting requirement does not exempt Enviva Pellets Ahoskie, LLC from complying with the applicable emission control standards.

Furthermore, should you decide to modify the process such that the result is an increase of emissions of air pollutants including toxic air pollutants, an Air Quality Permit may be required and Enviva Pellets Ahoskie, LLC should submit a permit application to this Office prior to such actions.

This exemption from the permitting requirement is based upon your statement that equipment has been and will be operated under the threshold levels as outlined in the Regulation. Please be advised that the operation of any air pollution emission sources which results in emissions in excess of the threshold levels without an Air Quality Permit is a violation of 15A NCAC 2Q.0101, "Required Air Quality Permits." If this facility is required to obtain an Air Quality Permit for this equipment in the future because of required emissions, each day of operation of the emission sources without an Air Quality Permit represents a separate violation. Such violations may be subject to enforcement action pursuant to NCGS 143-215.114A.

If you have any questions, with reference to the above matter, please do not hesitate to contact Yuki Puram at 919-707-8470.

Sincerely,

William D. Willets, P.E. Chief, Permitting Section
Division of Air Quality, NCDEQ

cc: Washington Regional Office
    Central Files
Hi Mark,

Please attach this email and attachments to the 502(b)(10) form from Enviva.

Betsy Huddleston  
Division of Air Quality  
North Carolina Department of Environmental Quality  
252 948 3836 office  
252 975 3716 fax  
Betsy.Huddleston@ncdenr.gov  
943 Washington Square Mall  
Washington, NC 27889

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Joe Harrell  
Sent: Monday, August 14, 2017 5:35 AM  
To: Huddleston, Betsy <betsy.huddleston@ncdenr.gov>  
Subject: FW: Polymer

Good morning Betsy,

Here are two chemicals that we were thinking about using. You will see in the email below a different grade if these are not acceptable.

Thank you,

Joe
Joe Harrell  
Corporate EHS Manager  

Enviva Pellets Ahoskie, LLC  
142 NC Route 561 East  
Ahoskie, NC 27910 USA  
www.envivabiomass.com  
+1 (252) 209 6032 x(2202)  
cell (252) 370 3181  
fax (252) 364 3428  
joe.harrell@envivabiomass.com

From: Hunter Martin [mailto:hunterm@chemtreat.com]  
Sent: Sunday, August 13, 2017 2:43 PM  
To: Joe Harrell <joe.harrell@envivabiomass.com>  
Subject: RE: Polymer

Joe,

I hope you are having/had a good weekend. I’m so sorry for the delay, your email got stuck between some spam and I didn’t see it and it was also a rough week this past week.

Let me know if they don’t approve these, I may need to work with the DEQ on the calculations. We can also try the GRAS approved chemicals as needed. GRAS means “generally accepted as safe” basically food grade.

Thanks and please let me know if you have any questions.

Hunter Martin  
District Manager  
Cell: 434.258.6635  
Email: hunterm@chemtreat.com

ChemTreat  
5640 Cox Road  
Glen Allen, VA 23060  
www.chemtreat.com

From: Joe Harrell [mailto:joe.harrell@envivabiomass.com]  
Sent: Friday, August 11, 2017 4:59 PM  
To: Hunter Martin <hunterm@chemtreat.com>  
Subject: FW: Polymer

Do you happen to have the MSDS for the polymer that Enviva may use? I’m trying to confirm that we can burn it.
Do you have a MSDS for this polymer?

Betsy Huddleston
Division of Air Quality
North Carolina Department of Environmental Quality
252 948 3836 office
252 975 3716 fax
Betsy.Huddleston@ncdenr.gov
943 Washington Square Mall
Washington, NC 27889

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Betsy Huddleston [mailto:betsy.huddleston@ncdenr.gov]
Sent: Monday, August 07, 2017 11:15 AM
To: Huddleston, Betsy <betsy.huddleston@ncdenr.gov>
Subject: RE: Polymer

Hello,

Answers below,
Hi Joe,

Do you expect all of the polymer to adhere to the wood, and would any NC toxics or quantifiable increase in VOC or PM result from combustion of the polymer in the dryer? I believe the polymer would adhere to all of the wood with no toxic or quantifiable increase in VOC or PM from the furnace. I’m afraid I don’t know how to prove it nor have evidence from other sources. Appreciate any guidance that you can provide. Thanks again,
Hi Betsy,

Hope you are doing well. Quick question, I would like to inject a minute amount of polymer into the water inlet side of the centrifuge to increase the effectiveness of the centrifuge, which removes wood fiber from the recyle water of the WESP. Currently we burn the centrifuge material, because it’s only wood. I want to make sure I can continue to burn the centrifuge after polymer injection, estimated 300 ppm per gallon of water. We generate 500 lbs of centrifuge wood fiber per day.

Thank you,
Joe

Joe Harrell
Corporate EHS Manager

Enviva Pellets Ahoskie, LLC
142 NC Route 561 East
Ahoskie, NC 27910 USA
www.envivabiomass.com
+1 (252) 209 6032 x(2202)
cell (252) 370 3181
fax (252) 364 3428
joe.harrell @envivabiomass.com

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SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name: ChemTreat P816E
Product Use: Water Clarification/Solids Conditioning Agent
Supplier’s Name: ChemTreat, Inc.
Emergency Telephone Number: (800)424–9300 (Toll Free)
Address (Corporate Headquarters): 5640 Cox Road
Glen Allen, VA 23060
Telephone Number for Information: (800)648–4579
Date of SDS: March 7, 2017
Revision Date: March 7, 2017
Revision Number: 17030701AN

Section 2. Hazard(s) Identification

Signal Word: DANGER
GHS Classification(s): Eye damage/irritation – Category 1
Hazard Statement(s): H318 Causes serious eye damage.
Precautionary Statement(s):
  Prevention: P264 Wash thoroughly after handling.
  Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
  Storage: None.
  Disposal: P501 Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.
Hazards Not Otherwise Classified: None.
Section 3. Composition/Hazardous Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry.#</th>
<th>WL.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillate hydrotreated light</td>
<td>84742-47-8</td>
<td>22-30</td>
</tr>
<tr>
<td>Alcohols (C10–16) ethoxylated</td>
<td>68002-97-1</td>
<td>0-3.5</td>
</tr>
<tr>
<td>Alcohols (C12–16) ethoxylated</td>
<td>68551-12-2</td>
<td>0-3.5</td>
</tr>
<tr>
<td>Alcohols (C12–C14) ethoxylated</td>
<td>68439-50-9</td>
<td>0-3.5</td>
</tr>
<tr>
<td>Ethoxylated fatty amine</td>
<td>26635-93-8</td>
<td>1-5</td>
</tr>
<tr>
<td>Ammonium Acetate</td>
<td>631-61-8</td>
<td>2-10</td>
</tr>
</tbody>
</table>

Comments

If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret. Components listed above that have a zero minimum and a common maximum range are interchangeably used components based on availability. Only one of these components is contained in the product up to the maximum amount noted.

Section 4. First Aid Measures

Inhalation: Call a POISON CENTER or doctor/physician if you feel unwell.

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin: Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation occurs, seek medical advice/attention.

Ingestion: Rinse mouth. Call a poison center or doctor/physician if you feel unwell.

Most Important Symptoms: N/D

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary: N/A
Section 5. Fire Fighting Measures

<table>
<thead>
<tr>
<th>Flammability of the Product:</th>
<th>Not flammable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable Extinguishing Media:</td>
<td>Use extinguishing media suitable to surrounding fire.</td>
</tr>
<tr>
<td>Specific Hazards Arising from the Chemical:</td>
<td>Use water spray to keep containers cool.</td>
</tr>
<tr>
<td>Protective Equipment:</td>
<td>If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.</td>
</tr>
</tbody>
</table>

Section 6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Personal Precautions:</th>
<th>Wear a self-contained breathing apparatus and appropriate Personal Protective Equipment (PPE).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Precautions:</td>
<td>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.</td>
</tr>
<tr>
<td>Methods for Cleaning up:</td>
<td>Contain and recover liquid when possible. Flush spill area with water spray.</td>
</tr>
<tr>
<td>Other Statements:</td>
<td>If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802. Reportable Quantity of the product is 9147 Gal.</td>
</tr>
</tbody>
</table>

Section 7. Handling and Storage

| Handling: | Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust. Material is very slippery if spilled. |
Storage:
Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only.
Do not store or handle in aluminum, zinc, copper, or their alloys.
Do not store below 50°F.
Do not store above 90°F.
Do not freeze. Store above Freeze Point. If freezes, then product is unusable.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillate hydrotreated light</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Alcohols (C10-16) ethoxylated</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Alcohols (C12-16) ethoxylated</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Alcohols (C12-C14) ethoxylated</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Ethoxylated fatty amine</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Ammonium Acetate</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

Engineering Controls: Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes: Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin: Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory: If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.
Section 9. Physical and Chemical Properties

Physical State and Appearance: Liquid Emulsion, Straw, Cloudy
Specific Gravity: 1.092 @ 20°C
pH: N/A
Freezing Point: 32°F
Flash Point: >199.4°F
Odor: Moderate
Melting Point: N/D
Initial Boiling Point and Boiling Range: >212°F
Solubility in Water: Dispersible
Evaporation Rate: N/D
Vapor Density: N/D
Molecular Weight: N/D
Viscosity: 2018 CPS @ 20°C
Flammability (solid, gas): N/D
Flammable Limits: N/A
Autoignition Temperature: N/D
Density: 9.11 LB/GA
Vapor Pressure: N/D
% VOC: N/D
Odor Threshold: N/D
n-octanol Partition Coefficient: N/D
Decomposition Temperature: N/D

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.
Incompatibility with Various Substances: None known.
Hazardous Decomposition Products: Ammonia, Carbon dioxide, Carbon monoxide, Oxides of nitrogen, Oxides of sulfur.
Possibility of Hazardous Reactions: None known.
Reactivity: N/D
Conditions To Avoid: N/D
Section 11. Toxicological Information

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure</th>
<th>Type of Effect</th>
<th>Concentration</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChemTreat P816E</td>
<td>Oral</td>
<td>LD50</td>
<td>&gt;5000 MG/KG</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>Inhalation</td>
<td>LC50</td>
<td>&gt;20 MG/L</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>Dermal</td>
<td>LD50</td>
<td>&gt;2000 MG/KG</td>
<td>Rabbit</td>
</tr>
</tbody>
</table>

Carcinogenicity Category

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
<th>Code</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillate hydroreated light</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Alcohols (C10–16) ethoxylated</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Alcohols (C12–16) ethoxylated</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Alcohols (C12–C14) ethoxylated</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Ethoxylated fatty amine</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Ammonium Acetate</td>
<td>EPA</td>
<td>EPA-D</td>
<td>Not classifiable – inadequate or no data are available.</td>
</tr>
</tbody>
</table>

Likely Routes of Exposure: N/D

Symptoms

- Inhalation: N/D
- Eye Contact: N/D
- Skin Contact: N/D
- Ingestion: N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D
Specific Target Organ Toxicity

Single Exposure: N/D
Repeated Exposure: N/D
Aspiration Hazard: N/D
Comments: None.

Section 12. Ecological Information

Ecotoxicity

<table>
<thead>
<tr>
<th>Species</th>
<th>Duration</th>
<th>Type of Effect</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceriodaphnia dubia</td>
<td>48h</td>
<td>LC50</td>
<td>3.5 mg/l</td>
</tr>
<tr>
<td>Fathead Minnow</td>
<td>96h</td>
<td>LC50</td>
<td>30 mg/l</td>
</tr>
</tbody>
</table>

Persistence and Biodegradability: N/D
Bioaccumulative Potential: N/D
Mobility in Soil: N/D
Other Adverse Effects: N/D
Comments:
Water clarification polymers function by multipoint adsorption and charge neutralization with suspended solids. Polymers inherently migrate with solids in the separation process and with the exception of uneconomic overdose do not remain in the clarified waters. Aquatic toxicity determinations in test method protocol waters without suspended solids overestimate the toxicity compared to natural receiving waters.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations. Not a RCRA-regulated hazardous waste when disposed in the original product form.
Section 14. Transport Information

<table>
<thead>
<tr>
<th>Controlling Regulation</th>
<th>UN/NA#:</th>
<th>Proper Shipping Name</th>
<th>Technical Name:</th>
<th>Hazard Class:</th>
<th>Packing Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>N/A</td>
<td>COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Over 9147 GA</td>
<td>UN3082</td>
<td>RQ ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.</td>
<td>(AMMONIUM ACETATE)</td>
<td>9</td>
<td>PGIII</td>
</tr>
<tr>
<td>IMDG</td>
<td>N/A</td>
<td>COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ICAO</td>
<td>N/A</td>
<td>COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TDG</td>
<td>N/A</td>
<td>COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA): All ingredients listed.
Canada (DSL/NDSL): All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard: No
Reactive Hazard: No
Release of Pressure: Yes
Acute Health Hazard: No
Chronic Health Hazard: No

Other Sections

<table>
<thead>
<tr>
<th>Component</th>
<th>Section 313</th>
<th>Section 302 EHS</th>
<th>CERCLA RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillate hydrotreated light</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Alcohols (C10–16) ethoxylated</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Alcohols (C12–16) ethoxylated</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Component</td>
<td>Section 313 Toxic Chemical</td>
<td>Section 302 EHS TPO</td>
<td>CERCLA RQ</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------------------------</td>
<td>---------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Alcohols (C12–C14) ethoxylated</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethoxylated fatty amine</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ammonium Acetate</td>
<td>N/A</td>
<td>N/A</td>
<td>5000</td>
</tr>
</tbody>
</table>

Comments: None.

State Regulations

California Proposition 65: This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Special Regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillate hydroprocessed light</td>
<td>None.</td>
</tr>
<tr>
<td>Alcohols (C10–16) ethoxylated</td>
<td>None.</td>
</tr>
<tr>
<td>Alcohols (C12–16) ethoxylated</td>
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</tr>
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<td>None.</td>
</tr>
<tr>
<td>Ammonium Acetate</td>
<td>CA, DE, MA, NY, PA</td>
</tr>
</tbody>
</table>

International Regulations

Canada

WHMIS Classification: N/A

Controlled Product Regulations (CPR): N/A

Compliance Information

NSF: N/A

Food Regulations: N/A

KOSHER: This product has not been evaluated for Kosher approval.

FIFRA: N/A

Other: None

Comments: None.
Section 16. Other Information

HMIS Hazard Rating

| Health        | 2 |
| Flammability  | 1 |
| Physical Hazard| 0 |
| PPE           | X |

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE. The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator’s understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
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</tr>
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<tbody>
<tr>
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</tr>
<tr>
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<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>EHS</td>
<td>Environmental Health and Safety Dept</td>
</tr>
<tr>
<td>N/A</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>N/D</td>
<td>Not Determined</td>
</tr>
<tr>
<td>N/E</td>
<td>Not Established</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Health and Safety Dept</td>
</tr>
<tr>
<td>PEL</td>
<td>Personal Exposure Limit</td>
</tr>
<tr>
<td>STEL</td>
<td>Short Term Exposure Limit</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weight Average</td>
</tr>
<tr>
<td>UNK</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: March 7, 2017
Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.
SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name: ChemTreat S102  
Product Use: Water Clarification Agent  
Supplier's Name: ChemTreat, Inc.  
Emergency Telephone Number: (800)424-9300 (Toll Free)  
Address (Corporate Headquarters): 5640 Cox Road Glen Allen, VA 23060  
Telephone Number for Information: (800)648-4579  
Date of SDS: March 7, 2017  
Revision Date: March 7, 2017  
Revision Number: 17030701AN

Section 2. Hazard(s) Identification

Signal Word: WARNING

GHS Classification(s):  
- Eye damage/irritation – Category 2b  
- Acute Toxicity Dermal – Category 5  
- Acute Toxicity Inhalation – Category 5  
- Acute Toxicity Oral – Category 5  
- Hazardous to the aquatic environment Acute – Category 2

Hazard Statement(s):  
- H320 Causes eye irritation.  
- H313 May be harmful in contact with skin.  
- H333 May be harmful if inhaled.  
- H303 May be harmful if swallowed.  
- H401 Toxic to aquatic life.

Precautionary Statement(s):  

Prevention: P264 Wash thoroughly after handling.  
P273 Avoid release into the environment.

Response: None.

Storage: None.

Disposal: None.

Section 3. Composition/Hazardous Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry #</th>
<th>Wt.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chloride</td>
<td>12042-91-0</td>
<td>10-30</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Comments: If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin: Wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

Most Important Symptoms: N/D

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary: N/A
Section 5. Fire Fighting Measures

Flammability of the Product: Not flammable.

Suitable Extinguishing Media: Use extinguishing media suitable to surrounding fire.

Specific Hazards Arising from the Chemical: None known.

Protective Equipment: If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions: Use appropriate Personal Protective Equipment (PPE).

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Methods for Cleaning up: Contain and/or absorb spill with inert material then place in suitable container.

Other Statements: None.

Section 7. Handling and Storage

Handling: Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage: Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Store above Freeze Point.
Section 8. Exposure Controls/Personal Protection

Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chlorhydrate</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

Engineering Controls: Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes: Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

Skin: Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory: If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance: Liquid, Dark Straw, Translucent
Specific Gravity: 1.205 @ 20°C
pH: 4.2 @ 20°C, 100.0%
Freezing Point: 30°F
Flash Point: N/D
Odor: Mild
Melting Point: N/A
Initial Boiling Point and Boiling Range: 215°F
Solubility in Water: Complete
Evaporation Rate: 1
Vapor Density: N/D
Molecular Weight: N/D
Viscosity: N/A
Flammability (solid, gas): N/D
Flammable Limits: N/A
Autoignition Temperature: N/A
Density: 10.05 LB/GA
Vapor Pressure: As Water
% VOC: N/D
Odor Threshold: N/D
n-octanol Partition Coefficient: N/D
Decomposition Temperature: N/D

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.
Incompatibility with Various Substances: Strong oxidizers, Strong bases.
Possibility of Hazardous Reactions: None known.
Reactivity: N/D
Conditions To Avoid: N/D

Section 11. Toxicological Information

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure</th>
<th>Type of Effect</th>
<th>Concentration</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chlorohydrate</td>
<td>Oral</td>
<td>LD50</td>
<td>91-97 MG/KG</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>Dermal</td>
<td>LD50</td>
<td>&gt;2000 MG/KG</td>
<td>Rat</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Oral</td>
<td>LC50</td>
<td>3 G/KG</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>Inhalation</td>
<td>LC50</td>
<td>&gt;42 GM3</td>
<td>Rat</td>
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</table>

Carcinogenicity Category

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
<th>Code</th>
<th>Brief Description</th>
</tr>
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<tbody>
<tr>
<td>Aluminum chlorohydrate</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

Likely Routes of Exposure: N/D
Symptoms

- Inhalation: N/D
- Eye Contact: N/D
- Skin Contact: N/D
- Ingestion: N/D

Skin Corrosion/Irritation: N/D
Serious Eye Damage/Eye Irritation: N/D
Sensitization: N/D
Germ Cell Mutagenicity: N/D
Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity
- Single Exposure: N/D
- Repeated Exposure: N/D

Aspiration Hazard: N/D
Comments: None.

Section 12. Ecological Information

Ecotoxicity

<table>
<thead>
<tr>
<th>Species</th>
<th>Duration</th>
<th>Type of Effect</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceriodaphnia dubia</td>
<td>48h</td>
<td>LC50</td>
<td>2.71 mg/l</td>
</tr>
<tr>
<td>Fathead Minnow</td>
<td>96h</td>
<td>LC50</td>
<td>22 mg/l</td>
</tr>
</tbody>
</table>

Persistence and Biodegradability: N/D
Bioaccumulative Potential: N/D
Mobility In Soil: N/D
Other Adverse Effects: N/D
Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

<table>
<thead>
<tr>
<th>Controlling Regulation</th>
<th>UN/NA#:</th>
<th>Proper Shipping Name:</th>
<th>Technical Name:</th>
<th>Hazard Class:</th>
<th>Packing Group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>N/A</td>
<td>COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>IMDG</td>
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<td>N/A</td>
</tr>
<tr>
<td>ICAO</td>
<td>N/A</td>
<td>COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
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<td>N/A</td>
<td>COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA): All ingredients listed.
Canada (DSL/NDSL): All ingredients listed.
Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

- Fire Hazard: No
- Reactive Hazard: No
- Release of Pressure: No
- Acute Health Hazard: Yes
- Chronic Health Hazard: No

Other Sections

<table>
<thead>
<tr>
<th>Component</th>
<th>Section 313 Toxic Chemical</th>
<th>Section 302 EHS TPQ</th>
<th>CERCLA RQ</th>
</tr>
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<tbody>
<tr>
<td>Aluminum chlorohydrate</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</table>

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>States</th>
</tr>
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<tbody>
<tr>
<td>Aluminum chlorohydrate</td>
<td>None.</td>
</tr>
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<td>Sodium chloride</td>
<td>None.</td>
</tr>
</tbody>
</table>

International Regulations

Canada

- WHMIS Classification: N/A
- Controlled Product Regulations (CPR): N/A
Compliance Information

NSF: N/A
Food Regulations: N/A
KOSHER: This product has not been evaluated for Kosher approval.
FIFRA: N/A
Other: None
Comments: None.

Section 16. Other Information

HMIS Hazard Rating

| Health: | 1 |
| Flammability: | 0 |
| Physical Hazard: | 0 |
| PPE: | X |

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE. The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha–numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

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REQUEST FOR EXCEPTION TO PURCHASE / CONTRACT

Division: Air Quality / ECB
Contact: Kim Gold
Phone #: 919-715-1761
Email: kim.gold@ncdenr.gov
Date: 08/24/2017

Amount Requested: $379.00
Funding Source: Fuel Tax
Company: 1602
Account: 2334-1785

Fund % from I/M
Center: 2338-1788

Items to Be Purchased: (ECB # 18: Miscellaneous Computer Supplies, Modems, UPS and Wireless)

VENDOR: CDW-G
200 N. Milwaukee Avenue
Vernon Hills, IL 60061

ACCT #: 4016179 (Customer No.)
Fed ID #: 800-800-4239
Phone #: 203-851-7111 (Direct Line)
Contact: jeffgre@cdwg.com
www.cdw.com

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Unit</th>
<th>Description</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>EA</td>
<td>Star Tech 2-Port PCI Serial Adapter Card, Part # 237161, MFG Part # PCI2S550</td>
<td>$29.17</td>
<td>$291.70</td>
</tr>
<tr>
<td>7</td>
<td>EA</td>
<td>Kingston DataTraveler 100 G3 16 GB USB 3.0 Flash Drive, CDW Part # 2995816</td>
<td>$8.90</td>
<td>$62.30</td>
</tr>
</tbody>
</table>

Shipping $25.00

Do Not Include Tax On This Order.

Tax Exempt #: 400027

TOTAL $379.00

Analysis of Need:
The serial adapter cards are being requested in order to complete the installation of the MET equipment that is required due to the new software. Due to the requirements by our IT department to run our existing data loggers in correlation with the new software until they can finish the reprogramming of IBEAM we currently do not have enough serial ports to connect all the necessary equipment to the site computer. The monitoring of the MET data and the ability to communicate with the site data logger are required, and there is currently no other option available to make sure we can meet all the requirements to operate the sites as required.

Rev. 05/22/2017
The USB Flash Drives will be used to replace full and damaged drives. The drives will also be used for backing up and transferring files from a technicians old DOS based computer to a current operating system. The drives will be used for backing up, storing all data files from the calibrator certification computers and setting up new wireless sites. The drives will also be used for the ECB technicians to transfer data that is generated from EPA mandated quarterly audits that must be entered into AQ121 forms and Audit Assurance Reports. The flash drives will be used as a method for data recovery during in the field maintenance of our data acquisition systems located in approximately 50 sites across the state. The drives will be used as an emergency backup for data storage.

**Impact of Denial:**
Failure to purchase the serial adapter cards will prevent us from installing the MET equipment that is required by the EPA to monitor site conditions at several monitoring sites. Without valid MET data the site could be considered invalid and a complete loss.

If the flash drives are not purchased, data and all calibration records can be lost. Site installations could also suffer due to not having the required software and setup programs. Site audits could not be properly completed without having a means to transport and save data from the site to the ECB. Certification records and back up data could not be properly stored without these new drives because our current drives are at capacity.

Signed: ___________________________ Date: ___________________________

☐ Approved ☐ Disapproved
Division Budget Officer ___________________________ Date: ____________

☐ Approved ☐ Disapproved
Division Director ___________________________ Date: ____________

☐ Approved ☐ Disapproved
BPA ___________________________ Date: ____________

☐ Approved ☐ Disapproved
Secretary’s Office ___________________________ Date: ____________

☐ Approved ☐ Disapproved
ITS ___________________________ Date: ____________
August 28, 2017

Mr. Matt Szambelan
Plant Manager
Enviva Pellets Ahoskie, LLC
142 NC Route 561 East
Ahoskie, NC 27910

SUBJECT: Permit Applicability Determination
Applicability Determination Application No. 3105
Enviva Pellets Ahoskie, LLC
Ahoskie, Hertford County
Facility ID No. 4600107
Permit No. 10121T04

Dear Mr. Szambelan:

The Division of Air Quality received your application on August 14, 2017 requesting that this Office determine whether an Air Quality Permit is necessary for the polymer injection operation into the centrifuge, which removes wood fiber from the recycle water of the wet electrostatic precipitator (ID No. CD-WESP). This applicability determination is to evaluate permit applicability of combusting wood fiber for the dryer (ID No. ES-DRYER) after the polymer injection. Because your facility regularly burns recycled wood fiber, the DAQ reviewed permit applicability of the emissions from the wood combustion which may contain the polymer.

In light of the information provided, personnel of the Division of Air Quality have reviewed your letter relative to applicability to Air Quality Permits, and our determinations are listed as follows:

1. According to the Safety Data Sheets (SDS) provided, both types of polymer (ChemTreat P816 and ChemTreat S102) appeared to be water based products indicating % VOC is “non-detectable”. Therefore, a minimum increase in VOC is expected by the polymer injection.

2. The SDS indicated that ChemTreat P816 contains the following components:
   - Petroleum distillate hydrotreated light (CAS# 64742-47-8)
   - Alcohols (C19-16) ethoxylated (CAS# 68002-97-1)
   - Alcohols (C12-16) ethoxylated (CAS# 68551-12-2)
   - Ethoxylated fatty amine (CAS# 26635-93-8)
   - Ammonium Acetate (CAS# 631-61-8)
None of the components above is listed in the EPA's regulated hazardous air pollutants or NC DAQ's toxic air pollutants per 15A NCAC 02Q .0711. Therefore, they are not subject to the HAPs/TAPs emissions.

3. The SDS indicated that ChemTreat S102 contains the following components:
   - Aluminum chlorohydrate (CAS# 12042-91-0)
   - Sodium chloride (CAS# 7647-14-5)

Neither of these components is listed in the EPA's regulated hazardous air pollutants or NC DAQ's toxic air pollutants per 15A NCAC 02Q .0711. Therefore, they are not subject to the HAPs/TAPs emissions.

As a result, this Office has determined that an Air Quality Permit is not required for the combustion of the wood fiber after the polymer injection as long as the facility uses one of the products that is mentioned above. It should be noted that this exemption from the permitting requirement does not exempt Enviva Pellets Ahoskie, LLC from complying with the applicable emission control standards.

Furthermore, should you decide to modify the process such that the result is an increase of emissions of air pollutants including toxic air pollutants, an Air Quality Permit may be required and Enviva Pellets Ahoskie, LLC should submit a permit application to this Office prior to such actions.

This exemption from the permitting requirement is based upon your statement that equipment has been and will be operated under the threshold levels as outlined in the Regulation. Please be advised that the operation of any air pollution emission sources which results in emissions in excess of the threshold levels without an Air Quality Permit is a violation of 15A NCAC 2Q .0101, "Required Air Quality Permits." If this facility is required to obtain an Air Quality Permit for this equipment in the future because of required emissions, each day of operation of the emission sources without an Air Quality Permit represents a separate violation. Such violations may be subject to enforcement action pursuant to NCGS 143-215.114A.

If you have any questions, with reference to the above matter, please do not hesitate to contact Yuki Puram at 919-707-8470.

Sincerely,

[Signature]

William D. Willets, P.E. Chief, Permitting Section
Division of Air Quality, NCDEQ

cc: Washington Regional Office
    Central Files
August 23, 2017

Mr. Greg Smith  
Enviva Pellets Ahoskie, LLC  
142 NC Route 561 East  
Ahoskie, NC 27910

SUBJECT: 502(b)(10) Notification Acknowledgement  
Enviva Pellets Ahoskie, LLC  
Air Quality Permit No. 10121T04  
Facility ID: 4600107  
Ahoskie, Hertford County

Dear Mr. Smith:

On August 14, 2017, the Division of Air Quality (DAQ) received notification of an upcoming 502(b)(10) change at your facility located in Ahoskie, North Carolina. The change involves the replacement of a cyclone (ID No. CD-DC). You have certified that this change qualifies as a 502(b)(10) change under 15A NCAC 2Q .0523. This letter acknowledges receipt of the notification, but does not represent a DAQ approval or verification that the change qualifies as a 502(b)(10) change. If the DAQ subsequently determines that a change does not qualify as a 502(b)(10) change and the permittee has already made the change, the facility may be subject to enforcement for having failed to obtain a permit revision.

You may implement the change provided you have given the US EPA a seven business day notice with the information specified in 15A NCAC 2Q .0523(a)(2) and have attached a copy of the notification to your permit. The Permittee assumes all financial risks associated with construction and operation without a permit revision. The permit shield will not extend to the modification described above until it has been incorporated into the permit at the time of the next significant modification or upon permit renewal. At the time the changes are incorporated into the permit, the DAQ will require that all applicable application forms be submitted for each emission source associated with the requested 502(b)(10) change. Prior to that time, you must certify compliance with the existing permit terms for this 502(b)(10) change on the annual compliance certification.

Should you have any questions concerning this matter, please contact Yuki Puram at (919) 707-8470.

Sincerely,

William D. Willets, P.E., Chief, Permitting Section  
Division of Air Quality, NCDEQ

cc: Washington Regional Office  
Central Files
July 24, 2017

Betsy Huddleston  
NCDEQ-DAQ Compliance Officer  
943 Washington Square Mall  
Washington, NC 27889

Re: Enviva Pellets Ahoskie, LLC  
Air Permit Registration No. 10121T04  
Delegation of Signatory Authority

Dear Mrs. Huddleston:

This letter serves to inform NCDEQ that I, Greg Smith, am the authorized person for signing reports, plans, emission statements, applications, forms, compliance certifications, discharge monitoring reports, or any other documents containing emissions or discharge data or compliance information requested by the Director or required by permit or registration on behalf of Enviva Pellets Ahoskie, LLC (Enviva).

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in the administrative code. Should you have questions concerning this correspondence, please contact Joe Harrell at 252-370-3181.

Sincerely,

Greg Smith  
Plant Manager
July 24, 2017

Robert Fisher
Regional Air Quality Supervisor
NCDAQ-Washington Regional Office
943 Washington Square Mall
Washington, NC 27889

Subject: Enviva Pellets Ahoskie, LLC Summary Semi-annual Report for permit 10121T04

Dear Mr. Fisher:

Per condition 2.1-A-1-i on page 6 and 2.1-A-3-e on page 7 for the reporting period of January 1, 2017 to June 30, 2017, the emission sources (ID Nos. ES-DRYER, ES-DWDS, ES-DHMI through ES-DHM5, ES-PMFS, ES-CLR1 through ES-CLR5, ES-FB, ES-FPH, ES-TLB, ES-PL1, ES-PL2) and pollution control equipment, were visually inspected monthly for leaks and above normal emissions. For the most part the equipment was deemed in good condition and not requiring maintenance. We did have malfunctions, which are list below.

i. ES-Dryer, abort stack leaking, which was reported to WaRO. It was also deemed that the leak didn’t exceed the PM limit of 48 lbs/hr.

ii. ES-Dryer, duct going into the WESP leaked if pressure went positive in the system, which was reported to WaRO. It was also deemed that the leak didn’t exceed the PM limit of 48 lb/hr.

Per condition 2.2-A-4-d on page 10, for reporting period of January 1, 2017 to June 30, 2017, the report, which is attached, contains the following:

i. The monthly VOC emissions for the previous 17 months. The emissions must be calculated for each of the 12-month rolling average over the previous 17 months.

ii. The monthly softwood content of wood mixture processed in the dryer system (ID No. ES-DRYER), the hammermills (ID Nos. ES-DHM-1 through ES-DHM-5), and the pellet coolers (ID Nos. ES-CLR1 Through ES-CLR5).

Please feel free to contact Joe Harrell at (252) 370-3181 with any questions or comments. Thank you very much for your time and attention.

Sincerely,

Matt Szambelan
Plant Manager
## AHO Rolling Softwood Percentage/VOC Emissions

<table>
<thead>
<tr>
<th>Month</th>
<th>Fuel BDT</th>
<th>Pellet BDTs</th>
<th>Dryer HW %</th>
<th>ES-Dryer HW ODT</th>
<th>Dryer SW %</th>
<th>ES-Dryer SW ODT</th>
<th>Dry Shavings SW %</th>
<th>ES-CLR1 thru CLRS SW %</th>
<th>Total Mix</th>
<th>ES-Dryer VOC tons</th>
<th>ES-DHMI thru 5 VOC tons</th>
<th>ES-CLR1 thru 5 VOC tons</th>
<th>Rolling 12 month VOC tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb-16</td>
<td>1,868.89</td>
<td>27,141.18</td>
<td>68.6%</td>
<td>18618.85</td>
<td>23.2%</td>
<td>6296.75</td>
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<td>31%</td>
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<td>Mar-16</td>
<td>1,603.14</td>
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<td>63.5%</td>
<td>19911.91</td>
<td>26.5%</td>
<td>8319.10</td>
<td>10.0%</td>
<td>57%</td>
<td>100%</td>
<td>127</td>
<td>14</td>
<td>83</td>
<td>224</td>
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<tr>
<td>Apr-16</td>
<td>1,268.45</td>
<td>32,966.62</td>
<td>61.3%</td>
<td>20211.84</td>
<td>30.0%</td>
<td>9903.17</td>
<td>8.6%</td>
<td>39%</td>
<td>100%</td>
<td>130</td>
<td>14</td>
<td>84</td>
<td>228</td>
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<tr>
<td>May-16</td>
<td>1,439.61</td>
<td>29,504.13</td>
<td>66.1%</td>
<td>19514.03</td>
<td>26.6%</td>
<td>7848.10</td>
<td>7.3%</td>
<td>34%</td>
<td>100%</td>
<td>131</td>
<td>15</td>
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<tr>
<td>Jun-16</td>
<td>1,398.67</td>
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<td>66.7%</td>
<td>19179.23</td>
<td>22.7%</td>
<td>6512.83</td>
<td>10.6%</td>
<td>33%</td>
<td>100%</td>
<td>131</td>
<td>15</td>
<td>84</td>
<td>230</td>
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<tr>
<td>Jul-16</td>
<td>3,094.08</td>
<td>32,676.48</td>
<td>66.97%</td>
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<td>7600.55</td>
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<td>33%</td>
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<tr>
<td>Aug-16</td>
<td>2,819.23</td>
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<td>63.67%</td>
<td>21831.87</td>
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<td>9535.80</td>
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<td>36%</td>
<td>100%</td>
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<td>234</td>
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<td>Sep-16</td>
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<td>30,733.95</td>
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<td>20484.18</td>
<td>21.0%</td>
<td>6444.91</td>
<td>12.4%</td>
<td>33%</td>
<td>100%</td>
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<td>85</td>
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<tr>
<td>Oct-16</td>
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<td>73.46%</td>
<td>23511.16</td>
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<td>Nov-16</td>
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<td>24273.84</td>
<td>17.0%</td>
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<td>28%</td>
<td>100%</td>
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<tr>
<td>Dec-16</td>
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<td>24226.30</td>
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<td>4139.66</td>
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<td>22%</td>
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<tr>
<td>Jan-17</td>
<td>1,352.97</td>
<td>31,521.00</td>
<td>78.42%</td>
<td>24718.77</td>
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<td>4223.81</td>
<td>8.2%</td>
<td>22%</td>
<td>100%</td>
<td>133</td>
<td>15</td>
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<td>234</td>
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<tr>
<td>Feb-17</td>
<td>2,584.00</td>
<td>30,063.00</td>
<td>78.42%</td>
<td>23575.40</td>
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<td>4028.44</td>
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<td>22%</td>
<td>100%</td>
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<td>15</td>
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<td>234</td>
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<tr>
<td>Mar-17</td>
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<td>27572.35</td>
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<td>23%</td>
<td>100%</td>
<td>136</td>
<td>15</td>
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<tr>
<td>Apr-17</td>
<td>2,042.49</td>
<td>32,957.00</td>
<td>65.24%</td>
<td>21501.15</td>
<td>23.9%</td>
<td>7886.61</td>
<td>10.8%</td>
<td>35%</td>
<td>100%</td>
<td>136</td>
<td>15</td>
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<tr>
<td>May-17</td>
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<td>20625.57</td>
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<td>100%</td>
<td>136</td>
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<tr>
<td>Jun-17</td>
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<td>19.7%</td>
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<td>10.7%</td>
<td>30%</td>
<td>100%</td>
<td>137</td>
<td>15</td>
<td>89</td>
<td>241</td>
</tr>
</tbody>
</table>

**Totals**

<table>
<thead>
<tr>
<th>Total 12m</th>
<th>Total 12m</th>
<th>Total 17m</th>
<th>Total 17m</th>
</tr>
</thead>
<tbody>
<tr>
<td>36,425.57</td>
<td>387,568.21</td>
<td>372,850.39</td>
<td>112,418.12</td>
</tr>
</tbody>
</table>

**ES-Dryer SW% Rolling 12 Month Total** 23%

**ES-CLR1 thru CLRS SW% Rolling 12 Month Total** 32%

**ES-Dryer VOC Rolling 12 months** 136 tons

**ES-DHMI thru DHM5 VOC** 15 tons

**ES-CLR1 thru CLRS VOC** 89 tons

**Rolling 12m Total VOC** 239 tons

**ES-Dryer SW% Rolling 17 Month Total** 21%

**ES-CLR1 thru CLRS SW% Rolling 17 Month Total** 31%

**ES-Dryer VOC Rolling 17 months** 190 tons

**ES-DHMI thru DHM5 VOC Rolling 17 months** 23 tons

**ES-CLR1 thru CLRS VOC Rolling 17 months** 111 tons

**Rolling 17m Total VOC** 324 tons

**Emission Factors:**

- **ES-Dryer** 0.784 lb/DOE
- **ES-DHMI-5** 0.093 lb/DOE
- **ES-CLR1-5** 0.457 lb/DOE
June 20, 2017

Betsy Huddleston
NCDEQ-DAQ Compliance Officer
943 Washington Square Mall
Washington, NC 27889

Re: Enviva Pellets Ahoskie, LLC
Air Permit Registration No. 10121T04
Delegation of Signatory Authority

Dear Mrs. Huddleston:

This letter serves to inform NCDEQ that I, Matt Szambelan, am the authorized person for signing reports, plans, emission statements, applications, forms, compliance certifications, discharge monitoring reports, or any other documents containing emissions or discharge data or compliance information requested by the Director or required by permit or registration on behalf of Enviva Pellets Ahoskie, LLC (Enviva).

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in the administrative code. Should you have questions concerning this correspondence, please contact Joe Harrell at 252-370-3181.

Sincerely,

Matt Szambelan
Plant Manager