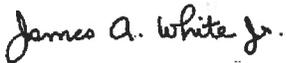


VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
Tidewater Regional Office
INTRA-AGENCY MEMORANDUM
Engineering Analysis

Permit Writer	James A. White, Jr.
Air Permit Manager	Laura D. Corl
Memo To	Air Permit File
Date	November 18, 2019
Facility Name	Enviva Pellets Southampton, LLC
Registration Number	61653
Application No.	009
Date Fee Paid	October 1, 2018
Amount (\$)	25,000
Distance to SNP (km)	>100
Distance to JRF (km)	>100
FLM Notification (Y/N)	No
Application Fee Classification (Title V, Synthetic Minor, True Minor)	Title V
Permit Writer Signature	
Permit Manager Signature	

I. Introduction

Enviva Pellets Southampton LLC (Enviva) submitted an initial air permit application on April 5, 2012, for the construction and operation of a wood pellet fuel manufacturing facility located at the Southampton County Commerce and Logistics Center. Wood pellets are cylindrical-shaped compressed wood particles that are used as a fuel for energy generation. The pellets are low in moisture content and burn hotter and cleaner than most other firewood stock. The facility was initially designed to produce nearly 600,000 oven dry tons (ODT) of wood pellets annually for use as an industrial fuel.

The initial September 5, 2012, synthetic minor NSR Article 6 permit (resulting from the initial April 5, 2012 application) has undergone multiple modifications since its issuance. On August 15, 2013, the facility's permit was amended to change the wood feedstock blend to all hardwood for the production of wood pellets. The permit was again amended on December 17, 2013, to install and operate a storage bin for the collection of wood pellet fines. Based on the results of the initial stack testing results, the permit was again amended to increase both the rotary wood dryer and facility wide VOC emission limits, as well as decrease the throughput of wood chips and wood residue fuel for the dryer burner. Enviva submitted a Form 7 air permit application on September 11, 2014, to have the

permit amended again to increase wood chip production. More recently, Enviva submitted an application to request the wood pellet feedstock composition be changed, which resulted in a source classification status change to state major for VOCs. On September 24, 2018, Enviva submitted a permit application for the planned expansion of the existing facility in order to increase wood pellet production and for the installation of additional air pollutant emission controls throughout the facility. The local government body certification form was received from Southampton County on October 9, 2018, and the form indicates that the proposed facility is fully consistent with all applicable local ordinances.

A screening report for the site was obtained through EPA's EJSCREEN utility. Reports were based on radii of 1, 2, and 5 miles around the site. The air quality related environmental indicators (state) ranged from the 15th to the 43rd percentile, and the demographic index was in the 8th percentile for the 1-mile run. The air quality related environmental indicators (state) ranged from the 16th to the 43rd percentile, and the demographic index was in the 64th percentile for the 2-mile run. The air quality related environmental indicators (state) ranged from the 12th to the 41st percentile, and the demographic index was in the 79th percentile for the 5-mile run. Although DEQ does not currently have established criteria for designating neighborhoods or areas as EJ communities, DEQ nevertheless conducted enhanced public outreach to facilitate meaningful involvement as described in Section X. In addition, as discussed in Section VI, the air quality analysis for the proposed project demonstrates compliance with all federal and state air quality concentration standards. The proposed project will therefore not cause disproportionately high and adverse human health or environmental effects on any resident of the local community or any resident of Virginia.

II. Emission Unit(s) / Process Description(s)

The September 24, 2018, application (as amended March 22, 2019) for the planned expansion of the existing Southampton facility includes the following:

An increased wood pellet production rate from 535,260 ODT to 781,255 ODT per year along with a change in the amount of softwood processed from ten to 80 percent;

The addition of a regenerative thermal oxidizer (CD-RTO-1) to the wood chip dryer (ES-DRYER-1) line;

The installation of a wood-fired furnace (ES-FURNACE-2) rated at 180 MMBtu/hr;

The installation of a wood chip dryer (ES-DRYER-2) equipped with a WESP (CD-WESP-2), and RTO (CD-RTO-2);

The removal of the two existing re-chippers (ES-RCHP-1 and 2) and construction of five closed-loop green wood hammermills (ES-GHM-1 through 5) that will route emissions to either the combination of WESP (CD-WESP-1) and RTO (CD-RTO-1) or the combination of WESP (CD-WESP-2) and RTO (CD-RTO-2);

The addition of a chiller with air to air exchanger to cool and dry the pellet cooler air supply;

The addition of dryer and furnace bypass stacks for each dryer line (ES-DRYERBYP-1, ES-DRYERBYP-2, ES-FURNACEBYP-1, and ES-FURNACEBYP-2);

The addition of four burners to heat the exhaust gas and recirculation ducts for each dryer system (two burners per dryer line), referred to as Double Duct Burners (ES-DDB-1 through ES-DDB-4);

The addition of a dry hammermill (ES-DHM-9) to the eight existing dry hammermills;

The addition of a second pre-screener located prior to the dry hammermills (part of ES-DWH) and the addition of a baghouse (CD-DWH-BF) to control emissions from existing and new pre-screensers;

The addition of chip reclaim automation by adding truck tippers and a stacker reclaimer;

The routing of exhaust gases from the baghouses (CD-DHM-BF-1 to 3) that control the dry hammermills (ES-DHM-1 to 9) to a wet scrubber (CD-WS-1), then to a regenerative catalytic oxidizer that can also operate as an RTO (CD-RCO/RTO-3);

The routing of the pellet press (ES-PP) and pellet coolers (ES-CLR-1 to 6) exhaust gases through a wet scrubber (CD-WS-2) and then a new RCO/RTO (CD-RCO/RTO-4);

The upgrading of the existing pellet screener (ES-PCHP);

The addition of a bulk additive powder silo (ES-ADD) and accompanying baghouse (CD-ADD-BF);

The addition of a propane vaporizer (ES-PVAP) to vaporize liquid propane for combustion by the RTOs, RCO, and double duct burners;

The addition of a diesel storage tank for mobile sources (ES-TK-3); and

The addition of a diesel-fired emergency generator (ES-EG-2) and associated 1,000-gallon diesel fuel storage tank (ES-TK-4).

In addition, the reference identification name for the existing pellet fines bin (ES-PFB) will be changed to pellet cooler high pressure (HP) relay system (ES-PCHP), along with the name of the associated baghouse changed from CD-PFB-BV to CD-PCHP-BF.

III. Regulatory Review

A. 9VAC5 Chapter 80, Part II, Article 6 – Minor New Source Review

The provisions of Article 6 apply throughout Virginia to (i) the construction of any new stationary source or project which includes any addition, replacement, or modification of one or more emission units or any combination of these changes, and (ii) the reduction of any stack outlet elevation at any stationary source. To be exempt from Article 6 permitting, the emission rates of both criteria pollutants and toxic pollutants must be taken into account; that is, in order for a project to be exempt, it must be exempt under both the provisions of 9VAC5-80-1105(B) through (D) as a group and 9VAC5-80-1105(E) and (F) of the regulations. This permit application is for a requested change that meets the definition of ‘project’ as contained in 9VAC5-80-1110(C) of Article 6. As stated in the cited regulation, a ‘project’ means "any change(s) at an existing stationary source consisting of the addition, replacement, or modification of one or more emission units". Each of the project’s emissions units were reviewed to determine possible Article 6 exemption status based on the criteria listed in 9VAC5-80-1105.

The project’s emissions units were first examined for possible exemption based on the provisions in sections A and B of 9VAC5-80-1105. The review analysis determined the following units met the exemption criteria listed in 9VAC5-80-1150(B) of the regulations:

The 500 kW emergency diesel engine-generator (ES-EG-2) exempted by 9VAC5-80-1105(B)(2)(b);

The 5,000 gallon capacity mobile diesel fuel oil storage tank (ES-TK-3) exempted by 9VAC5-80-1105(B)(8)(d); and

The 1,000 gallon capacity diesel fuel oil storage tank (ES-TK-4) for emergency generator ES-EG-2 exempted by 9VAC5-80-1105(B)(8)(e)(1).

In order to be exempt from Article 6 permitting, these emissions units must also be exempt from the provisions of 9VAC5-80-1105(E) and (F). The 500 kW emergency diesel engine-generator (ES-EG-2) was excluded from 9VAC5-80-1105(E) and (F) as the generator’s diesel engine is in an area source category subject to a standard promulgated pursuant to 40 CFR 63, Subpart ZZZZ. Accordingly, the diesel engine is exempt from the state toxics rule (9VAC5-60 Article 5). The two diesel fuel storage tanks (ES-TK-3 and 4) were also excluded from 9VAC5-80-1105(E) and (F) as any of the toxic compounds from the diesel fuel contained in these fuel storage tanks as vented

to the atmosphere would be less than both their respective hourly and annual toxic exempt threshold rates.

The new 180 MMBtu/hr wood-fired furnace (ES-FURNACE-2) was examined for possible exclusion from Article 6 permitting. The heat generating component (furnace) for the wood chip dryer system works in a fashion similar to a stoker-type boiler when it comes to the combustion process of the furnace; however, unlike a boiler, the hot combustion gases come in direct contact with the wood chips as the exhaust gases pass through the rotating drum of the dryer. Because of this direct contact, the furnace (ES-FURNACE-2) is not considered to be a boiler. Normally, for boiler operations, heat transfer occurs through an intermediate medium or liquid such as water. The furnace does not meet the EPA's criteria for indirect heating (40 CFR 63.11200 and 40 CFR 63.11237). Therefore, the new furnace cannot be compared to the exemption criteria for boilers listed in 9VAC5-80-1105(B)(1)(a) for possible exemption from of Article 6.

The project had no other affected emissions units listed in Section B of 9VAC5-80-1105. Therefore, the Article 6 review analysis turned to the provisions of 9VAC5-80-1105(D) for a determination of the project's permit applicability. In determining whether or not a project is exempt under 9VAC5-80-1105(D), a calculation of the uncontrolled emission rate (UER) increase from the project is required. The project's increase is the sum of the UER increases from each affected emissions unit not listed in 9VAC5-80-1105(B). An emissions unit's increase is the difference between the new UER after the project (NUE) and the current UER (CUE) for that emissions unit and cannot be less than zero. As shown in the summary table below, the project's UER increases from the new non-exempted emissions units exceed all of the respective criteria pollutant permitting threshold due to exposure to relevant criteria pollutants: therefore, the project is subject to Article 6 permitting and to BACT for these pollutants. Note that these UER calculations were only evaluated for the purpose of determining permit applicability and have no bearing on the emission limits of the proposed permit. As such, DEQ evaluated these increases on a general basis.

Project UER Increase Summary

Pollutant	CUE (tpy)	NUE (tpy)	UER (tpy)	Exemption (tpy)
PM	0	631.1	631.1	15
PM10	0	630.8	630.8	10
PM2.5	0	586.0	586.0	6
SO2	0	14.2	14.2	10
CO	0	132.4	132.4	100
NOx	0	93.0	93.0	10
VOC	0	1077.8	1077.8	10

The project would occur at an existing Article 6 major stationary source and result in significant emissions increases to regulated air pollutants emitted into the atmosphere above those specified in 9VAC5-80-1110(C), which is considered to be an Article 6 major modification.

B. 9VAC5 Chapter 80, Part II, Article 8 and Article 9 - PSD Major New Source Review and Non-Attainment Major New Source Review

Southampton County is a Prevention of Significant Deterioration (PSD) area for all regulated NSR pollutants as designated in 9VAC5-20-205. Under the PSD program, only major stationary sources of regulated NSR pollutants are potentially subject to PSD permitting rules (9VAC5-80 Article 8). A PSD major source is designated as one that emits or has the potential to emit (PTE) any regulated NSR pollutant greater than 250 tons per year or 100 tons per year if the facility is classified as one of 28 specific industries/source categories listed in 9VAC5-80 Article 8. The Enviva Southampton facility is in the 250 tons per year major stationary source category and is currently a minor source under PSD/NSR regulations. A major modification for a PSD source is defined in 9VAC5-80-1615 as “any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase of a regulated NSR pollutant(s), and a significant net emissions increase of the pollutant(s) from the major stationary source.”

Applicability of PSD review is evaluated on a pollutant-specific basis. Without the presence of any permitted operating or emission limits, the facility would exceed PSD major or PSD significance levels for PM, PM10, PM2.5, CO, NOx, and VOC as each would be over 250 tons per year. However, Enviva has elected to accept federally enforceable permit limits, whereby keeping the facility wide emissions of these regulated NSR pollutants to below the 250 tons per year limit and avoid a major source classification under PSD regulations. The state major NSR permit would limit the facility to a 20% hardwood/80% softwood chip throughput of 781,255 oven dried tons (ODT) per rolling 12-month period to limit facility-wide emissions to below the PSD major stationary source level of 250 tons per year.

C. 9VAC5 Chapter 80, Part II, Article 5 – State Operating Permit (SOP)

The permit conditions that include HAP emission limitations feature SOP as well as Article 6 citations (combined permit) in order to provide maximum enforceability to the HAP emission limitations. The combined permit introduction and effective date conventions were also followed.

The public participation measures employed for this permit, described in Section X of this EA meet or exceed the regulatory requirements specified by Article 5 to make the SOP basis for these HAP emission limits federally-enforceable.

D. 9VAC5 Chapter 50, Part II, Article 5 – NSPS

The project includes emission units subject to the following NSPS (9VAC5-50-400 et. seq.) Regulations:

NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The wood dryer (ES-DRYER-2) and associated wood-fired furnace (ES-FURNACE-2) are not subject to the applicability requirements of NSPS, Subpart Db, as the emission units do not meet EPA's criteria for indirect heating (40 CFR 63.11200 and 63.11237).

E. 9VAC5 Chapter 60, Part II, Article 1 - NESHAPS

No NESHAPS (9VAC5-60-70) requirements apply to the project.

F. 9VAC5 Chapter 60, Part II, Article 2 – MACT

Enviva Pellets Southampton is an area source of HAP emissions. The project includes emission units subject to the following MACT (9VAC5-60-100 et. seq.) Regulations:

MACT Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

The direct-fired vaporizer (ES-PVAP) used to heat liquid propane fuel does not process materials or heat transfer materials. As such, the propane vaporizer is not a process heater under MACT, Subpart DDDDD. The double duct burners (ES-DDB-1 thru ES-DDB-4) used to heat the dryer double ducts provide direct heating of the ducts; as such, they also do not meet MACT, Subpart DDDDD for process heaters.

G. State Only Enforceable (SOE) Requirements (9VAC5-80-1120(F))

The state and federally enforceable HAP limits of the proposed permit were also used as the basis for the air toxics modeling to demonstrate compliance with Chapter 60, Article 5 as described in Section VI. Therefore, there are no state only enforceable requirements implemented as a result of this project.

H. 9VAC5 Chapter 40, Part II, Existing Sources - Emission Standards

Southampton County is a VOC and NO_x Control Area as designated in 9VAC5-20-206. The conditions in the permit are at least as stringent as the otherwise applicable Chapter 40 standards (9VAC5-40-80). The facility is applicable to Rule 4-17: Emission Standards for Woodworking Operations since it meets the definition of a “woodworking operation,” which is defined as any operation involving the generation of small wood waste particles (shavings, sander dust, sawdust, etc.) by any kind of mechanical

manipulation of wood, bark, or wood byproducts. The emission limits listed in the permit are more stringent than Rule 4-17.

IV. Best Available Control Technology Review (BACT)

BACT applicability is pollutant-by-pollutant based on the permitting applicability thresholds. Each affected emissions unit emitting a pollutant that is subject to permitting is required to apply BACT for that same pollutant (9VAC5-50-260(C)). A project must apply best available control technology for each regulated pollutant for which there would be an increase in the uncontrolled emission rate (UER) equal to or greater than the exempt threshold levels in 9VAC5-80-1105(D).

The project would result in uncontrolled emissions increases above the specified 9VAC5-80-1105(D) exempt thresholds for CO, NO_x, SO₂, PM, PM₁₀, PM_{2.5}, and VOC pollutants. In addition and in accordance with 9VAC5-60-320, the facility is required to employ BACT for state toxic pollutant emissions. The following table summarizes the affected emissions units subject to BACT and their corresponding pollution control devices:

Emission Unit (URN)	Pollution Control Device (URN)	Pollutant(s) Controlled
ES-GHM-1 thru 5	Option 1 CD-WESP-1; CD-RTO-1	Particulates, VOC, HAP, and TAP
	Option 2 CD-WESP-2; CD-RTO-2	
ES-DWH (handling) ES-DWH (screeners)	CD-DWH-BF (Baghouse)	Particulates
ES-PMFS	CD-PMFS-BV (Bin Vent Filter)	Particulates
ES-DHM-1 thru 9	CD-HM-BF-1 thru 3; CD-WS-1: CD-RCO/RTO-3	Particulates, VOC, HAP, and TAP
ES-DHMA	CD-HM-BF-3; CD-WS-1: CD-RCO/RTO-3	Particulates, VOC, HAP, and TAP
ES-CLR-1 thru 6 ES-PP	CD-WS-2; CD-RCO/RTO-4	Particulates, HAP, VOC, and TAP
ES-PCHP	CD-PCHP-BF (Baghouse)	Particulates
ES-ADD	CD-ADD-BF (Baghouse)	Particulates
ES-TL and ES-FPH	CD-FPH- BF (Baghouse)	Particulates
ES-DRYER-1	CD-WESP-1; CD-RTO-1; CD-SNCR-1	Particulates, VOC, HAP, TAP, and NO _x
ES-DRYER-2	CD-WESP-2; CD-RTO-2	Particulates, VOC, HAP, and TAP

WESP - Wet Electrostatic Precipitator
 PCHP - Pellet Cooler HP Fines Relay System
 RTO - Regenerative Thermal Oxidizer
 RCO - Regenerative Catalytic Oxidizer

- PP - Pellet Press
- CLR - Pellet Cooler
- DHMA – Dry Hammermill Area
- DHM - Dry Hammer Mill
- GHM - Green Hammer Mill
- PMFS - Pellet Mill Feed Silo
- FPH - Finished Product Handing
- ADD - Additive Storage Silo and Handling
- TL - Truck Loadout
- BF - Bag Filter
- WS - Wet Scrubber
- SNCR - Selective Non-Catalytic Reduction
- TAP - Toxic Air Pollutant

DEQ also evaluated the new dryer for a selective non-catalytic reduction (SNCR) system for NOx control. Based upon DEQ’s review of other wood pellet facilities (and other wood product facilities), there are no dryer units operating with a SNCR system in line with a thermal oxidation system in the United States. Although the existing dryer unit at the facility is equipped with a SNCR system, Enviva has supplied information to DEQ indicating that both the existing and new dryers at the facility operate outside of optimum temperature range for a SNCR system and that the existing system (and any proposed new system) therefore achieves minimal NOx control. In addition, Enviva has indicated (and DEQ agrees) that any SNCR system in line with a thermal oxidation system may generate additional NOx due to ammonia slip oxidation. For these reasons, DEQ has determined that a SNCR system is not representative of BACT for the new dryer.

V. Summary of Potential Emissions Increase

The facility’s change in PTE after the issuance of the amended permit is shown in the following table:

**Summary of Potential Emissions Increases
 After Issuance of Permit**

Pollutant	Past PTE (tpy)	Future PTE (tpy)	PTE Increase (tpy)
PM	82.2	162.6	80.4
PM10	82.2	114.2	32.0
PM2.5	82.2	74.1	- 8.1
SO2	16.6	24.0	7.4
NOX	75.6	177.5	101.9
CO	52.7	176.8	123.3
VOC	245.0	80.8	- 164.2
Total HAPs	24.1	18.3	- 5.8

VI. Dispersion Modeling

Air dispersion modeling was conducted for all criteria pollutants with facility wide potential emissions in excess of the PSD Significant Emission Rates (SER) and all toxic pollutants with emissions above the Emissions Standards for Toxic Pollutants for New and Modified Sources established in Chapter 60, Article 5 of the Regulations. As discussed in DEQ's June 6, 2019 Air Quality Analysis Memo, the predicted air quality impacts from the modified facility were found to be in compliance with all applicable National Ambient Air Quality Standards (federal) and Significant Ambient Air Concentrations (Virginia).

The criteria pollutant air quality analysis represents a conservative result since it includes the modeled impacts of the proposed expanded facility, the modeled impacts from other nearby facilities and measured background concentrations. In addition, the air quality analysis is based on the facility's worst-case short-term emissions and considers all of the proposed operating scenarios. As is typical for most air quality analyses, the highest ambient air quality impacts from the proposed facility are located within one kilometer of the property boundary.

VII. Boilerplates and Boilerplate Deviations

The permit has been developed using the Generic NSR and Skeleton NSR Boilerplates.

VIII. Compliance Demonstration

Compliance with the emission limits in the permit will be shown through the following requirements:

Annual output of debarked green wood logs (in ODT) from the debarker operations, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

Annual output of wood bark material (in ODT) from the bark hog, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

Annual output of green wood chips (in ODT) from the wood chipper, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

Annual output of green wood chips (in ODT) from the five green wood hammermills, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

Monthly records of the hardwood and softwood feedstock throughputs (in ODT) and percent softwood contained in the combined wood feedstock mixture, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly total for the preceding 11 months;

Annual output of combined dried wood chips (in ODT) from the wood chip dryers, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

Annual output of combined dried wood chips (in ODT) from the nine hammermills, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

Annual throughput of bulk dry additive (in tons) used in the wood pellet manufacturing process, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

Annual hours of operation and fuel combusted during each mode of operation (normal, idle, cold start-up) for each wood-fired furnace (URN ES-FURNACE-1 and URN ES-FURNACE-2), calculated monthly as the sum of each consecutive 12-month period;

Continuous monitoring records for the observed combustion chamber temperature readings for each RCO/RTO and each RTO;

Monitoring records for the observed voltage and secondary amperage in each field or power input readings to each WESP, for each operating shift;

Monitoring records for each baghouse's monitor device used to continuously measure the differential pressure across the fabric filter;

Monitoring records for the observed scrubber liquid flow rate readings for each wet scrubber, for each operating shift;

Results of all stack tests, visible emissions observations (VEO), and any VEE performed as required by this permit;

Records for the episodes of bypass stack usage, documenting the date, time, duration of use, cause of the episode, and any corrective action(s);

Monthly records for the urea usage in the SNCR system (CD-SNCR-1);

Continuous monitoring records for the furnace 1 secondary combustion zone temperature and the total urea solution flow rate for the SNCR system (CD-SNCR-1);

Records of scheduled and unscheduled maintenance and operator training; and

Records for the total combined HAP emissions (in tons) for the wood pellet manufacturing facility, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

The permit also includes extensive initial and subsequent performance test requirements for criteria pollutants emitted in excess of the Article 6 significance levels and for HAPs emitted in amounts greater than 0.5 tons/yr (facility-wide).

IX. Title V Review - 9VAC5 Chapter 80 Part II Article 1 or Article 3

The Enviva Pellets Southampton is a Title V facility; therefore, within 12 months of the commencement of operations associated with the project, the source must submit an application to amend their Title V permit to incorporate the project and the associated conditions from this permit into the Title V permit, per 9VAC5-80-80.

X. Public Participation and Notifications

As an Article 6 major modification, this permit action is subject to the public participation requirements of 9VAC5-80-1170. An advertisement for a public hearing (scheduled for September 12, 2019 in Franklin, Virginia) and a 45 day comment period (30 days before the public hearing (PH); 15 days following the PH) in the *Tidewater News* was published on August 11, 2019. The public comment period will therefore be considered to run from August 11, 2019 through September 27, 2019.

In addition, DEQ held a public meeting in Franklin, Virginia (Paul D. Camp Community College) on August 6, 2019. The purpose of the public meeting was to further inform the public about the project and the upcoming public comment period. To insure maximum outreach to all portions of the local community, DEQ sent notification of the public meeting to DEQ's entire (both PSD and Title V) mailing list, multiple Tribes, more than 20 local churches and schools as well as utilizing on-line resources. Notice of the public meeting was also published in the *Tidewater News*. The meeting consisted of a 30-minute DEQ presentation followed by a 60-minute question and answer session with the approximately 20 public attendees. The notice for the public comment period and public hearing described above was also distributed using the same expansive procedures.

A summary of the public comments received and DEQ's responses to these comments are described in detail in the attached Response to Comments document.

The revisions to the draft permit as a result of the comments/responses are summarized below:

- Increased stack testing frequency (Condition 62)
- Increased dust control compliance measures (Condition 57)
- Clarification of the applicable emission limits during control device construction (Condition 67)
- Enhanced NO_x emission limit compliance mechanisms (Condition 65(s))

XI. Other Considerations

The proposed permit includes a requirement (Condition 67) that the three thermal oxidizers required to control emissions from the existing dryer, the dry hammermills, and the pellet press and coolers be constructed and operational within one year of the date this permit is issued. This requirement applies whether the facility is expanded or not. In addition, Condition 67 also specifies that the facility shall not exceed the dryer throughput limit or the emission limits of the January 6, 2015 State Major permit (included in Conditions 67(a) and Conditions 78 - 82 of the proposed permit) or operate the new dryer (accrue production benefit from the proposed expansion) until these three thermal oxidizers are operational.

This condition is the result of the discussions between Enviva and DEQ that were memorialized in an August 1, 2018 letter from Mr. Mike Dowd (Director of DEQ's Air and Renewable Energy Division) to Mr. Royal Smith (Executive Vice President, Operations of Enviva Pellets Southampton LLC). DEQ's considers the approach outlined in the letter (which has resulted in the proposed permit) to have been the quickest and most certain path to additional air pollution control systems at the Enviva Southampton facility.

XII. Recommendations

Approval of the draft permit is recommended.

Attachments: Response to Comments document
Air Quality Analysis Memo