

**THE STATE OF SOUTH CAROLINA
BEFORE THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

**IN RE: ENVIVA PELLETS GREENWOOD, LLC
GREENWOOD COUNTY**

**CONSENT ORDER
20-003-A**

The Department of Health and Environmental Control, Bureau of Air Quality (“Department”), and Enviva Pellets Greenwood, LLC (“Enviva”), 200 Enviva Way, Greenwood, South Carolina, without the adjudication of any issues of fact or law and upon the consent of the parties, agree to the terms of this Consent Order as follows:

FINDINGS OF FACT

WHEREAS, Enviva agrees to the following findings of the Department:

1. Enviva processes softwood and hardwood into pellets to be used for energy production at its facility located at 200 Enviva Way in Greenwood, South Carolina. Business filings at the Office of the South Carolina Secretary of State list Enviva as a limited liability company incorporated in Delaware.
2. On August 23, 2013, the Department issued Construction Permit 1240-0133-CA (“Construction Permit CA”) to Colombo Energy, Inc. On January 12, 2018, the Department issued Bureau of Air Quality Construction Permit 1240-0133-CB (“Construction Permit CB”) to Colombo Energy, Inc. On March 14, 2018, the Department received a request for a transfer of ownership from Colombo Energy, Inc. to Enviva. Permit CB was modified by the Department, upon Enviva’s request, on March 20, 2018. Enviva is now the permit holder for Permits CA and CB (collectively, “Construction Permits”).

3. The Construction Permits authorize the operation of the following equipment:

- a) Equipment ID E6-E10 - green hammermills1-4 and green chip silo, with PM, PM₁₀, PM_{2.5},VOC and HAP emissions controlled by a wet electrostatic precipitator ("WESP") and a regenerative thermal oxidizer ("RTO1");
- b) Equipment ID E11-E13 - 200 million Btu/hr furnace, bark dryer and dry chip silo, with PM, PM₁₀, PM_{2.5},VOC, HAP emissions controlled by a cyclone pack, bin vent, WESP, and RTO1;
- c) Equipment ID E14-E18 - dry hammermills1-5, with PM, PM₁₀, PM_{2.5} emissions controlled by cyclofilters;
- d) Equipment ID E19 - pelletizer feed silo with PM, PM₁₀, PM_{2.5} emissions controlled by abin vent;
- e) Equipment ID E20-E39 - pelletizers 1-15 and pellet coolers 1-5 with PM, PM₁₀, PM_{2.5},VOC and HAP emissions controlled by baghouses and a regenerative thermal oxidizer ("RTO2")/ regenerative catalytic oxidizer ("RCO1");
- f) Equipment ID E40 and E41 - pellet silos 1 and 2 with PM, PM₁₀, PM_{2.5} emissions controlled by a cyclofilter;
- g) Equipment ID E42 - loadout with PM, PM₁₀, PM_{2.5} emissions controlled by a cyclone filter and cyclone;
- h) Equipment ID E43 - dust silo with PM, PM₁₀, PM_{2.5} emissions controlled by cyclofilters; and

- i) Equipment ID E44 and E45 –a865 HP generator and a 305 HP fire pump.
4. U.S. Environmental Protection Agency (“EPA”) regulations at 40 CFR Part 60, Subpart III, *Standards of Performance For Stationary Compression Ignition Internal Combustion Engines* and S.C. Code Ann. Regs. 61-62.60, Subpart III, *Standards of Performance For Stationary Compression Ignition Internal Combustion Engines*(collectively, "Subpart III"), require periodic maintenance activities to be conducted according to manufacturer's emission-related written instructions for the generator and fire pump.
 5. Construction Permit CA prohibits Enviva from bypassing any stack except during emergencies or mechanical failures. Any occurrences in which a stack is bypassed shall be corrected in a timely manner. Any occurrence shall be documented in written logs or electronically and maintained on-site in a permanent format suitable for inspection by Department personnel
 6. The Construction Permits and S.C. Code Ann. Regs. 61-62.5, Standard No. 4, *Emissions from Process Industries*, require Enviva to limit opacity to 20%.
 7. The Construction Permits and S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, also require Enviva to:
 - a) Maintain on file all measurements including continuous monitoring system or monitoring device performance measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices;

- b) Monitor and record parameter readings (i.e., pressure drop readings, etc.) and inspection checks along with any corrective action taken when deviations occur. Each incidence of operation outside the operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site;
- c) Establish operational ranges initially as recommended by the control device manufacturer to provide a reasonable assurance of compliance. Future operational ranges for the monitored parameters shall be derived from stack test data, which demonstrate the proper operation of the equipment. These ranges, with supporting documentation and quality assurance procedures, shall be submitted to the Bureau for approval within 180 days of startup;
- d) Submit an operation and maintenance ("O&M") plan to the Department within 180 days of initial startup of the pelletizing lines;
- e) Conduct weekly O&M checks of baghouse cleaning systems, dust collection hoppers and conveying systems for proper operation associated with hammer mill and the pelletizing/pellet cooling baghouses;
- f) Record pressure drop readings each shift during source operation for the hammer mill and the pelletizing/pellet cooling baghouses; and
- g) Install, operate and maintain combustion zone temperature indicators on each incinerator and conduct, at least monthly, maintenance checks to ensure proper temperature indicator operation;

8. On May 8, 2019, a Department inspector conducted a compliance inspection at the facility. During the inspection, the inspector determined that Enviva did not:

- a) Maintain all required calibration records as required, specifically calibration records for the dryer, RTO1, baghouses, RCO1 and WESP monitoring devices;
- b) Document corrective action when deviations from established ranges occurred. Documentation for cyclofilter#3 indicated deviations from the established ranges and did not indicate cause and corrective action;
- c) Submit operational ranges to the Department for approval, to include RTO1, baghouses, RCO1 and WESP;
- d) Submit an O&M plan to the Department within 180 days of initial startup of the pelletizing lines;
- e) Conduct weekly O&M checks for baghouse cleaning systems, dust collection hoppers and conveying systems for proper operation associated with hammer mill and the pelletizing/pellet cooling baghouses;
- f) Record pressure drop readings each shift during source operation for the hammer mill and the pelletizing/pellet cooling baghouses; specifically, 33 days were not recorded for 2019 and 15 days in 2019 only had one reading;
- g) Provide records of monthly maintenance checks on RTO1's temperature indicator; and

- h) Provide documentation demonstrating that all required preventative maintenance is being conducted on Equipment IDE-44 and IDE-45. Records of monthly preventative maintenance were available but did not contain enough information to determine if all periodic maintenance activities are being conducted.
9. On September 24, 2019, a Department inspector conducted a follow-up inspection at the facility. During the inspection, the inspector observed a visible plume being emitted from the dry hammermill process. The Department inspector conducted a U.S. EPA Method 9 Visible Emissions Observation ("Method 9 VEO"). Visible emissions were calculated at 24% opacity for the highest six-minute average.
10. On December 4, 2019, a Department inspector conducted an inspection in response to a complaint of heavy visible emissions. Upon arrival, the Department inspector observed a heavy plume of smoke being emitted from the furnace bypass stack. The Department inspector conducted a Method 9 VEO. Visible emissions were calculated at 79% opacity for the highest six-minute average.
11. Also, during the December 4, 2019, inspection, representatives of Enviva indicated that the furnace was in the process of reaching a suitable operating temperature. Startup of the furnace began between 0400 and 0500 on December 4, 2019. The inspection was conducted at approximately 1400. Representatives of Enviva also indicated that the WESP and RTO were offline during this time to prevent damage to the equipment. The Department inspector determined that

Enviva utilized the bypass stack during a period not identified as an emergency or mechanical failure

12. On January 15, 2020, the Department issued a Notice of Alleged Violation and Enforcement Conference to Enviva for the alleged violations.

13. On February 20, 2020, the Department held an enforcement conference with Enviva to discuss the alleged violations. During the enforcement conference, representatives of Enviva indicated that all deficiencies in record keeping had been addressed and provided documentation to the Department demonstrating corrective actions taken by the facility. Representatives of Enviva also indicated that the excessive opacity observed during the December 4, 2019, inspection was a result of an unintentional “water dump” saturating fuel to the furnace. The bypass stack was utilized to avoid damage to the control device.

CONCLUSIONS OF LAW

WHEREAS, the Department concludes the following:

1. S.C. Code Ann. Section 48-1-330 (2008 and Supp. 2019) provides that any person violating any of the provisions of the Pollution Control Act, or any rule or regulation, permit or permit condition, final determination or order of the Department, shall be subject to a civil penalty not to exceed ten thousand dollars per day of such violation.
2. S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, requires an owner or operator to comply with all terms, conditions, and limitations of any Department-issued permit for sources or activities at its facility.
3. Enviva violated S.C. Code Ann. Regs. 61-62.1, Section II, *Permit*

Requirements, in that it failed to maintain all required calibration records for the dryer, RTO, baghouses, RCOs and WESP monitoring devices.

4. Enviva violated S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it failed to document corrective action when deviations from parameter readings occurred.

5. Enviva violated S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it failed to submit operational ranges to the Department for approval, to include the RTO, baghouses, RCOs and WESP.

6. Enviva violated S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it failed to submit an O&M plan to the Department within 180 days of initial startup of the pelletizing lines.

7. Enviva violated S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it failed to conduct weekly O&M checks for baghouse cleaning systems, dust collection hoppers and conveying systems for proper operation associated with hammer mill and the pelletizing/pellet cooling baghouses.

8. Enviva violated S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it failed to record pressure drop readings for each shift during source operation for the hammer mill and the pelletizing/pellet cooling baghouses.

9. Enviva violated S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it failed to provide records of monthly maintenance checks on the RTO temperature indicator.

10. Enviva violated 40 CFR 60.4211(a)(1) and S.C. Code Ann. Regs. 61-62.60.4211(a)(1), in that it failed to conduct required maintenance for IDE-44 and IDE-45.

11. Enviva violated S.C. Code Ann. Regs. 61-62.5, Standard No. 4, Section IX.B, and 5 S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it failed to limit opacity to 20% on September 23, 2019.

12. Enviva violated S.C. Code Ann. Regs. 61-62.5, Standard No. 4, Section IX.B, and S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it failed to limit opacity to 20% on December 4, 2019.

13. Enviva violated S.C. Code Ann. Regs. 61-62.1, Section II, *Permit Requirements*, in that it used a bypass stack other than during an emergency or mechanical failure.

IT IS THEREFORE ORDERED AND AGREED under authority of the Pollution Control Act, S.C. Code Ann. §48-1-10, *et seq.* (2008 & Supp. 2019), that Enviva shall:

1. Henceforth limit facility wide opacity to twenty (20) percent as required by the Construction Permits and Standard 4.
2. Henceforth conduct required maintenance in accordance with Subpart III.
3. Henceforth comply with all terms, conditions, and limitations of Department air quality permits issued to Enviva.
4. Within thirty (30) days of the execution of this Order, review, re-assess and submit the current Best Management Practices Plan for dust control at the site. The re-assessed plan shall include the following:

- a) Dust control methods for roadways, railcar and truck operations.
Frequency of observations for storage piles shall be included;
- b) Designated dust control methods for each specific material handled.
Frequency of control should be included where appropriate;
- c) A maintenance schedule for all dust control equipment as well as a minimum inventory of spare parts;
- d) Written procedures for all dust control equipment and systems. These procedures shall be based on the manufacturer's recommendations when available, at a minimum;
- e) Training plans for the dust control methods, equipment, and systems;
- f) Modifications and/or contingency plans required for changing weather conditions, failure of equipment, electrical power failure, and any other factors that may influence the effectiveness of control methods;
- g) Steps to mitigate fugitive particulate matter to go beyond property boundaries;
- h) Method to document plan requirement execution; and
- i) Schedule for the periodic review and update the plan.

5. Within thirty (30) days of the execution of this Order, pay to the Department a civil penalty in the amount of thirteen thousand dollars (\$13,000.00).

IT IS FURTHER ORDERED AND AGREED that this Consent Order governs only the civil liability to the Department for civil sanctions arising from the matters set forth herein and constitutes the entire agreement between the Department and Enviva with

respect to the resolution and settlement of these civil matters. The parties are not relying upon any representations, promises, understandings or agreements except as expressly set forth within this Order.

IT IS FURTHER ORDERED AND AGREED that the execution date of this Consent Order is the date this Order is signed by the Director of Environmental Affairs.

AND IT IS SO ORDERED.

{Signature Page To Follow}

FOR THE SOUTH CAROLINA DEPARTMENT
OF HEALTH AND ENVIRONMENTAL CONTROL




Myra C. Reece
Director of Environmental Affairs

Date: 7/16/2020



Rhonda B. Thompson, P.E.
Bureau Chief
Bureau of Air Quality

Date: 07/15/2020



Michael D. Shroup, Director
Air Compliance Management Division
Bureau of Air Quality

Date: 7/15/2020

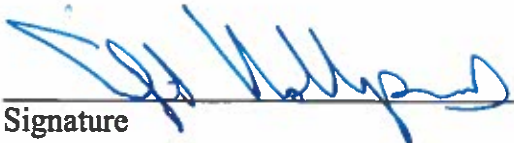
Reviewed By:



Attorney
General Counsel

Date: 7/15/2020

FOR ENVIVA PELLETS GREENWOOD, LLC



Signature

Date: 7/9/2020



Print or type name

JCB