

## STATEMENT OF BASIS

The Westervelt Company, Inc.  
Moundville, Hale County, Alabama  
Facility/Permit No. 406-S003

This Title V Major Source Operating Permit (MSOP) significant modification is issued under the provisions of ADEM Admin. Code chap. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit. The current permit was issued on June 30, 2017, and expires on December 31, 2021.

Westervelt operates a lumber production facility in Moundville, Alabama. Westervelt produces dimensional lumber from southern pine logs. The significant sources of air pollution at this facility are a 125 MMBtu/hr Wellons wood-fired boiler (Boiler No. 1) with multiclone venting to an electrostatic precipitator (ESP), a 125 MMBtu/hr Teaford wood-fired boiler (Boiler No. 2) with multiclone venting to an ESP, one 37.66 MMBtu/hr natural gas-fired boiler, two planer mills with pneumatic conveyance systems with cyclones and baghouses, two sawmills, 4 steam-heated batch dry kilns, three continuous dual path indirect-fired kilns, a wood waste handling system with two hammermills, and three boiler fuel storage silos. Insignificant emissions sources at this facility include two ring debarkers, wood/lumber chippers, bark/chip/sawdust handling and transfer systems, truck loadout, and wood residual storage piles. A 10 megawatt steam turbine was added during the up-rating of Boilers Nos. 1 and 2. It provides electrical power to the grid.

### Significant Modifications to MSOP

On June 12, 2018, The Westervelt Company, Inc. (Westervelt) was issued Air Permit No. 406-S003-X019 for the installation of four (4) emergency engines at the facility located in Moundville, Alabama. Westervelt was granted Temporary Authorization to Operate on October 19, 2018, and received full Authorization to Operate on April 10, 2019. This modification will incorporate the requirements of Air Permit No. X019, for the four (4) diesel-fired compression ignition Perkins engines utilized to provide backup power to the operations at the Moundville Mill.

### **Applicability: Federal Regulations**

#### Prevention of Significant Deterioration (PSD)

This facility is located in an attainment area for all criteria pollutants, and its operations are not one of the 28 listed major source categories. Westervelt is considered a major source for PSD because the facility-wide potential of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) emissions exceed 250 TPY.

Title V

This facility is considered a major source under Title V regulations because potential emissions for particulate matter (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) exceed the 100 TPY major source threshold. It is also a major source of Hazardous Air Pollutants (HAP) because individual HAP potential emissions are greater than 10 TPY (Methanol has a PTE of ~42.24 TPY) and the total HAP potential emissions are greater than 25 TPY.

**National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63**

40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The emergency engines are an affected source under 40 CFR 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. 40 CFR §63.6590(c)(6) stipulates “a new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions” must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart III. No further requirements would apply to the proposed emergency engine under Subpart ZZZZ.

**New Source Performance Standards (NSPS) 40 CFR part 60**

40 CFR 60, Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)

40 CFR 60, Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) applies to owners/operators of stationary emergency engines that are manufactured after April 1, 2006, and are not fire pump engines [40 CFR §60.4200(a)(2)(i)]. Since each proposed emergency engine would be constructed/manufactured after this date, each engine would be subject to Subpart III. The application indicates that each proposed emergency engine would be a certified engine as required by 40 CFR §60.4202.

Each emergency engine would be classified as 2007+ model year emergency engine with a displacement of less than 30 liters per cylinder. However the different power ratings have different corresponding applicable emission standards. The applicable emissions standards are outlined below:

Engine	HP	KW	NMHC+NOX	CO	PM	Reg.	Engine Power Category
			(g/KW-hr)				
ENG1	232.36	173.27	4.00	3.50	0.20	§89.112	130≤kW<225
ENG2	84.42	62.95	4.70	5.00	0.40	§89.112	37≤kW<75
ENG3	84.42	62.95	4.70	5.00	0.40	§89.112	37≤kW<75
ENG4	32.03	23.88	7.50	5.50	0.30	Subpart III Table 2	19≤kW<37

Pursuant to §89.113 for ENG1, ENG2, and ENG3, and pursuant to §1039.105 for ENG4, each emergency engine must not exceed the following smoke emission standards for exhaust opacity:

- 20 percent during the acceleration mode;
- 15 percent during the lugging mode; and
- 50 percent during the peaks in either the acceleration or lugging modes.

40 CFR §60.4206 requires that emergency engines be operated and maintained according to manufacturer approved procedures over the entire life of the engine. 40 CFR §60.4207(b) requires that diesel-fired CI ICE utilize fuel with a sulfur content of  $\leq 15$  ppm and a Cetane index  $\geq 40$  or aromatic content  $\leq 35\%$  by volume. Each engine must be equipped with a non-resettable hour meter [§60.4209]. Each emergency engine must operate according to all requirements of §60.4211(f)(1) through (3), only during emergency situations, and with the exceptions of 100 hours per year for maintenance checks and readiness testing, including 50 hours per year for non-emergency situations (not to exceed a combined total of 100 hours during any calendar year).

### **Notification, Reports, and Records**

To demonstrate compliance with the NSPS operational limitations, Westervelt shall maintain records of the date, time, duration, and purpose of operation each time the emergency engine is operated. To demonstrate compliance with the fuel limitations, Westervelt shall maintain records of the sulfur content and either the Cetane index or aromatic content of the diesel fuel that is burned in the emergency engine. All records shall be maintained in a form suitable for inspection and shall be retained for a period of five years from the date of generation.

### **Applicability: State Regulations**

*ADEM Admin. Code r. 335-3-4-.01, "Control of Particulate Emissions: Visible Emissions"*

The emergency engines are subject to the State visible emission standards for stationary sources. ADEM Admin. Code r. 335-3-4-.01(1) sets forth a visible emissions standard which states that each stationary source at the facility shall not emit particulate of an opacity greater than twenty percent (20%) more than once during any 60-minute period, as determined by a six-minute average, and at no time shall emit particulate of an opacity greater than 40%, as determined by a six-minute average. Since the emergency engines are fired with diesel, they are expected to be able to comply with this standard.

### **Emission Testing**

No emission testing would be required since the emergency engines are certified by the manufacturer to meet the applicable emission standards.

## **Compliance Assurance Monitoring (CAM)**

40 CFR Part 64, Compliance Assurance Monitoring, applies to processes that utilize an active control device to meet an emission limitation. The emergency engines do not utilize control devices to meet an emission limitation therefore are not subject to CAM requirements.

### **Reporting Requirements**

Westervelt would be required to include the following information (as applicable) in the Semiannual Monitoring Report required by General Permit Proviso No. 21:

- A statement describing the emission monitoring that was required during the reporting period, whether all emission monitoring was completed as required, and if not, the date(s) and reasons(s) why the monitoring was not performed;

Semi-annual reporting will be on a calendar year basis (January 1 – June 30 and July 1 – December 31).

### **Public Notice**

The significant modification of this Title V MSOP would require a 30-day public comment period and a 45-day EPA review period.

### **Recommendation**

Based on the above analysis, I recommend that The Westervelt Company's Significant Modification (Permit No. 406-S003) be issued with the conditions noted above, pending the resolution of any comments received during the public notice period and an EPA review.



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Rachael Broadway

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Date