

Georgia Department of Natural Resources

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Chris Clark, Commissioner

F. Allen Barnes, Director

NARRATIVE

TO: Furqan Shaikh

FROM: Anna C. Aponte

DATE: January 22, 2010

Facility Name: **Longleaf Energy Associates, LLC**
AIRS No.: 09900033
Location: Hilton, GA (Early County)
Application #: 18499
Date of Application: October 7, 2008

Background

On October 6, 2008, Longleaf submitted to EPD an Application for a Notice of MACT Approval for the Longleaf Energy Station. Longleaf conducted a case-by-case MACT determination for the hazardous air pollutants (“HAPs”) that the Longleaf facility may emit, and as a result, proposed to lower numerous limits that EPD had previously set in the Prevention of Significant Deterioration (“PSD”) permit issued to Longleaf in May 2007. EPD issued a Draft Permit Amendment and Draft Notice of MACT Approval in June 2009. An underlying assumption of Longleaf’s Application was that the Longleaf facility would be a “major source” of HAPs. A “major source” of HAPs is one that will emit 10 tons per year or more of any single HAP, or 25 tons per year or more of any combination of HAPs [42 U.S.C. § 7412(a)(1)]. Only “major sources” are required to comply with the case-by-case MACT requirement of Section 112(g)(2)(B).

Since EPD’s issuance of a Draft Permit Amendment and Draft Notice of MACT Approval, the agency has received numerous comments from the interested public, many of which presented new data from similar facilities. Commenters noted that recent stack test data and other available information suggested that the HAP emissions from the Longleaf facility would be lower than Longleaf’s or EPD’s original estimates. These same commenters also suggested that additional stack testing and compliance measures should be required.

Longleaf has analyzed these comments and the new data on which they rely. Longleaf has also consulted coal suppliers, vendors, and other individuals with knowledge of HAP emissions at similar sources to verify the new data and obtain the latest information on emission reducing capabilities of available pollution controls. Longleaf has used this new information to update its initial HAP emission estimates for combustion while firing PRB coal. Based on this information, Longleaf proposes to accept more restrictive limitations than those contained in the Draft Permit Amendment, and with these proposed restrictions, the facility’s HAP emissions will fall below the “major source” threshold. Included with these more restrictive conditions is a significant limitation on the quantity of Central Appalachian (“CAPP”) coal which can be fired as a result of CAPP coal’s higher chlorine content. Additionally, with the proposed compliance provisions, EPD will be able to ensure that the Longleaf facility will not exceed the 10/25 tpy HAPs threshold. Longleaf’s revised HAP emissions estimates and proposed compliance provisions are set forth in greater detail below.

Because Longleaf will not be a “major source” of HAPs, it is no longer required to comply with the case-by-case MACT requirements of Section 112(g)(2)(B). That said, Longleaf intends to voluntarily accept the MACT limits set forth in the Draft Permit Amendment in addition to the proposed conditions set forth below. Longleaf therefore requests that EPD finalize the terms proposed in the Draft Permit Amendment, approve and incorporate the emission limits and conditions proposed below, and issue the Permit Amendment.

Revised HAP Emissions

For each HAP or group of HAPs, the facility has detailed new potential emissions and supplied additional documentation to support the new proposal for being a synthetic minor source of Hazardous Air Pollutants. For the complete details, please refer to letter dated December 22, 2009, Public Comments to Draft Permit Amendment, submitted by Longleaf Energy Associates, LLC.

A. Hydrogen Chloride (HCl)

Longleaf identified new stack test data for HCl from PRB-fired facilities. Table 1 below details the complete list of stack test data available to the facility.

Table 1 – HCl Stack Test Data from PRB-Fired Plants

Plant	Stack Test Date	Reported Emissions Lb/MMBtu
Wygen I	June 13, 2005	1.72×10^{-5}
Neil Simpson II	June 13, 2005	1.63×10^{-6}
Hardin	May 31, 2006	5.67×10^{-5}
MidAmerican - Walter Scott, Jr.	May 8-12, 2007	3.81×10^{-5}
MidAmerican - Walter Scott, Jr.	Aug. 14-18, 2007	5.77×10^{-5}
Wygen II	Jan 31, 2008	3.76×10^{-4}
Newmont Nevada TS Power Plant	April 6-14, 2008	4×10^{-4}
Weston 4	July 10, 2008	8.00×10^{-5}
OPPD	April 9, 2009	$< 2 \times 10^{-4}$ (below detection limit)
Newmont Nevada TS Power Plant	April 24, 2009	1.2×10^{-4}
Holcomb 1	August 5-6, 2009	2.60×10^{-5}

In reviewing the test results, Longleaf excluded Wygen II, OPPD and Newmont due to issues with testing, non-detect levels, or the addition of chlorine to the coal. This left a range of 8.00×10^{-5} to 1.63×10^{-6} lb/MMBtu. When Longleaf evaluates these lower values utilizing the same statistical approach it employed in its original application, the revised HCl emission limit it derives is 9.56×10^{-5} lb/MMBtu. That limit, if achieved by both boilers at full load at 8,760 hours/year, is equivalent to 5.14 tons per year of HCl.

Longleaf's revised estimate rests upon the assumption that it must burn PRB coal most, if not all, of the time that it operates. By accepting stringent, enforceable HAP emission limits in order to obtain minor source status, Longleaf acknowledges that it will necessarily forfeit some, but not all, of the flexibility to burn both PRB and CAPP coal that its PSD permit provides. Longleaf has always intended to burn primarily PRB coal, but requested (and was permitted) the flexibility to also burn CAPP coal in those instances where supplies of PRB coal are temporarily interrupted by rail logistics, etc. While Longleaf seeks to preserve that same flexibility, it does so with the understanding that it will only be able to operate on CAPP coal for a limited period of time and remain in compliance with the stringent HAP emission limits in its permit.

B. Hydrogen Fluoride (HF)

Longleaf identified new stack test data for HF from PRB-fired facilities. Table 2 below details the complete list of stack test data available to the facility.

Table 2 – HF Stack Test Data from PRB-Fired Plants

Plant	Stack Test Date	Reported Emissions Lb/MMBtu
Wygen I	June 13, 2005	1.35×10^{-6}
Neil Simpson II	June 13, 2005	5.58×10^{-7}
Hardin	May 31, 2006	4.67×10^{-5}
Tucson Electric - Springerville Unit 3	Aug. 24-25, 2006	6.30×10^{-5}
MidAmerican - Walter Scott, Jr.	May 8-12, 2007	$<1.08 \times 10^{-4}$ (below detection limit)
MidAmerican - Walter Scott, Jr.	Aug. 14-18, 2007	2.87×10^{-5}
Wygen II	Jan 31, 2008	$<3.76 \times 10^{-5}$ (2 of 3 runs below detection limit)
Newmont Nevada TS Power Plant	April 6-14, 2008	1.38×10^{-4}
Weston 4	July 10, 2008	4.00×10^{-5}
OPPD	April 9, 2009	$<2 \times 10^{-4}$ (below detection limit)
Newmont Nevada TS Power Plant	April 24, 2009	$<2.14 \times 10^{-4}$ (below detection limit)
Holcomb 1	August 5-6, 2009	$<2.8 \times 10^{-5}$ (below detection limit)

Removing those results that were below detection limits, the reported results range from 1.38×10^{-4} to 5.58×10^{-7} lb/MMBtu. When Longleaf evaluates these lower values utilizing the same statistical approach it employed in its Application (specifically, a determination of the 97.5 percentile of the individual test runs), the revised HF emission limit it derives is 1.55×10^{-4} lb/MMBtu. That limit, if achieved by both boilers at full load at 8,760 hours/year, is equivalent to 8.35 tons per year of HF.

C. Organic HAPs

Longleaf primarily used AP-42 emission factors to estimate organic HAP emissions in its Application. More recent data on organic emissions was compiled by the Electric Power Research Institute (“EPRI”). Table 3 below shows the previous and updated emission factors and estimated organics emissions. Table 3 solely depicts the predicted emissions while firing sub-bituminous coal. The emission factors would remain the same for bituminous coal, yet because the heat input would decrease when firing bituminous coal, the estimated emissions while firing bituminous coal would be lower than those in Table 3.

Table 3 – Revised Organic HAP Emissions Estimates

Organics	Previous lb/MMBtu Emission Factor	Revised lb/MMBtu Emission Factor	Sub-bituminous (TPY)	Ref.
PAHs	1.3E-06	1.47E-06	7.90E-02	(1)
Acetaldehyde	3.50E-05	3.20E-06	1.72E-01	(1)
Acetophenone	9.10E-07	1.20E-06	6.45E-02	(1)
Acrolein	1.80E-05	1.90E-06	1.02E-01	(1)
Benzene	7.90E-05	3.90E-06	2.10E-01	(1)
Benzyl chloride	4.30E-05	2.80E-07	1.51E-02	(1)
Bis(2-ethylhexyl)phthalate	4.50E-06	3.60E-06	1.94E-01	(1)
Bromoform	2.40E-06	6.60E-06	3.55E-01	(2)
Carbon disulfide	7.90E-06	1.10E-06	5.92E-02	(1)
2-Chloroacetophenone	4.30E-07	2.90E-07	1.56E-02	(2)
Chlorobenzene	1.30E-06	3.18E-06	1.71E-01	(2)
Chloroform	3.60E-06	8.00E-07	4.30E-02	(1)
Cumene	3.20E-07	2.90E-07	1.56E-02	(2)
2,4-Dinitrotoluene	1.70E-08	2.00E-07	1.08E-02	(1)
Dimethyl sulfate	2.90E-06	2.93E-06	1.57E-01	(3)
Ethyl benzene	5.70E-06	8.00E-07	4.30E-02	(1)
Ethyl chloride	2.60E-06	2.40E-06	1.29E-01	(2)
Ethylene dichloride	2.40E-06	3.10E-06	1.67E-01	(2)
Ethylene dibromide	7.30E-08	2.60E-06	1.40E-01	(1)
Formaldehyde	1.50E-05	2.60E-06	1.40E-01	(1)
Hexane	4.10E-06	4.9E-07	2.64E-02	(1)
Isophorone	3.50E-05	1.20E-06	6.45E-02	(1)
Methyl bromide	9.80E-06	8.90E-07	4.79E-02	(1)
Methyl chloride	3.20E-05	1.10E-06	5.92E-02	(2)
Methyl hydrazine	1.00E-05	1.04E-05	5.57E-01	(3)
Methyl methacrylate	1.20E-06	1.10E-06	5.92E-02	(1)
Methyl tert butyl ether	2.10E-06	1.40E-06	7.53E-02	(2)
Methylene chloride	1.80E-05	3.60E-06	1.94E-01	(1)
Phenol	9.80E-07	3.30E-06	1.77E-01	(1)
Propionaldehyde	2.30E-05	1.90E-06	1.02E-01	(1)
Tetrachloroethylene	2.60E-06	4.20E-07	2.26E-02	(1)
Toluene	1.50E-05	1.70E-06	9.14E-02	(1)
1,1,1-Trichloroethane	1.20E-06	1.22E-06	6.56E-02	(3)
Styrene	1.50E-06	7.00E-07	3.76E-02	(1)
Xylenes	2.30E-06	1.26E-06	6.78E-02	(1)
Vinyl acetate	4.60E-07	3.10E-07	1.67E-02	(1)

Organics	Previous lb/MMBtu Emission Factor	Revised lb/MMBtu Emission Factor	Sub-bituminous (TPY)	Ref.
Dioxins	1.50E-08	1.50E-10	8.07E-06	(2)
Hexachlorobenzene	8.00E-08	8.00E-08	4.30E-03	(2)
Carbon tetrachloride	3.25E-06	3.25E-06	1.75E-01	(2)
Quinoline	5.30E-08	5.30E-08	2.85E-03	(2)
1,1-Dichloroethylene	9.70E-06	3.10E-06	1.67E-01	(2)
N-nitrosodimethylamine	6.80E-07	6.80E-07	3.66E-02	(2)
1,1,2-Trichloroethane	4.70E-06	4.70E-06	2.53E-01	(2)
Trichloroethylene	3.10E-06	3.10E-06	1.67E-01	(2)
Pentachlorophenol	8.00E-09	8.00E-09	4.30E-04	(2)
Trans 1,3 – Dichloropropene	4.70E-06	4.70E-06	2.53E-01	(2)
Cresols	2.65E-06	2.38E-06	1.28E-01	(2)
Dibutyl phthalate	2.80E-06	2.80E-06	1.51E-01	(2)
Methyl isobutyl ketone	4.90E-06	2.30E-06	1.24E-01	(1)
Phthalic anhydride	4.90E-06	4.90E-06	2.64E-01	(2)
Methyl iodine	4.00E-07	2.00E-06	1.08E-01	(1)
Total lb/MMBtu	4.65E-04	1.20E-04	--	
TOTAL TPY	25.0		5.78	

- (1) Emissions Factor Handbook: Guidelines for Estimating Trace Substance Emissions from Fossil Fuel Steam Electric Plants, EPRI Report #1005402, 2002.
- (2) Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units -- Final Report to Congress, Volume 2. Appendices, Table A-4.
- (3) EPA WebFire Query (11/10/09): <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>.

D. Non-Mercury Metal HAPs

The approach Longleaf utilized to estimate emissions of non-mercury metal HAPs in its Application was similar to its approach to estimating organic HAP emissions. Specifically, Longleaf combined conservative estimates of metal concentrations in the coal with an estimated removal factor to determine non-mercury metal emissions. Longleaf revisited these original estimates, and substituted the emission factors utilized in its Application with a more accurate methodology created through analysis of emissions data compiled by EPRI.

Longleaf's revised estimates of non-mercury metal HAP emissions are set forth in Tables 4 through 7. Tables 4 and 5 derive the emission rates of non-mercury metal HAPs (except for selenium) for PRB and CAPP coal, respectively, from the concentration of each element in the coal, the coal ash concentration, and emissions of filterable particulate matter in the manner described in AP-42. The metal concentration and ash content data continue to be taken from the COALQUAL database as was used previously. For this analysis, the average values from the COALQUAL database were used. For selenium, Longleaf relied on the published EPRI emission factor to estimate emissions. Tables 6 and 7 compare the original and revised emission factors and total annual emissions for non-mercury metal HAPs for PRB and CAPP coal, respectively.

Table 4 – Equation Components for Non-Mercury Metal Emission Rates - PRB

Metal	Coal Concentration (ppm)	“X” (Coal/Ash*PM)	Multiplier	Exponent	Emission Rates (lb/MMBtu)
Antimony (Sb)	0.53	0.087	0.92	0.63	1.97E-7
Arsenic (As)	5.27	0.86	3.1	0.85	2.73E-6
Beryllium (Be)	0.75	0.12	1.2	1.1	1.19E-7
Cadmium (Cd)	0.11	0.018	3.3	0.50	4.43E-7
Chromium (Cr)	5.45	0.89	3.7	0.58	3.46E-6
Cobalt (Co)	1.87	0.31	1.7	0.69	7.51E-7
Lead (Pb)	4.42	0.72	3.4	0.80	2.62E-6
Manganese (Mn)	50	8.18	3.8	0.60	1.34E-5
Nickel (Ni)	5.25	0.86	4.4	0.48	4.09E-6

Table 5 – Equation Components for Non-Mercury Metal Emission Rates - CAPP

Metal	Coal Concentration (ppm)	“X” (Coal/Ash*PM)	Multiplier	Exponent	Emission Rates (lb/MMBtu)
Antimony (Sb)	1.15	0.11	0.92	0.63	2.23E-7
Arsenic (As)	22	2.01	3.1	0.85	5.62E-6
Beryllium (Be)	2.80	0.26	1.2	1.1	2.69E-7
Cadmium (Cd)	0.081	0.0074	3.3	0.50	2.84E-7
Chromium (Cr)	14	1.28	3.7	0.58	4.27E-6
Cobalt (Co)	7.00	0.64	1.7	0.69	1.25E-6
Lead (Pb)	7.64	0.70	3.4	0.80	2.55E-6
Manganese (Mn)	20	1.83	3.8	0.60	5.46E-6
Nickel (Ni)	15	1.37	4.4	0.48	5.12E-6

Table 6 – Previous and Revised Non-Mercury Metal Emission Rates and Emissions - PRB

Metal	Previous Emission Rate (lb/MMBtu)	Revised Emission Rate (lb/MMBtu)	Previous Estimated Emissions (TPY)	Revised Estimated Emissions (TPY)
Antimony (Sb)	2.05E-6	1.97E-7	0.11	0.011
Arsenic (As)	1.28E-5	2.73E-6	0.69	0.15
Beryllium (Be)	4.09E-6	1.19E-7	0.22	0.0064
Cadmium (Cd)	3.20E-7	4.43E-7	0.017	0.024
Chromium (Cr)	1.95E-5	3.46E-6	1.05	0.19
Cobalt (Co)	9.45E-6	7.51E-7	0.51	0.040
Lead (Pb)	6.70E-5	2.62E-6	3.60	0.14
Manganese (Mn)	1.30E-4	1.34E-5	6.99	0.72
Nickel (Ni)	2.26E-5	4.09E-6	1.21	0.22
Selenium (Se)	4.74E-6	7.32E-6	0.26	0.39
TOTAL TPY	--	--	14.66	1.89

Table 7 – Previous and Revised Non-Mercury Metal Emission Rates and Emissions - CAPP

Metal	Previous Emission Rate (lb/MMBtu)	Revised Emission Rate (lb/MMBtu)	Previous Estimated Emissions (TPY)	Revised Estimated Emissions (TPY)
Antimony (Sb)	2.15E-6	2.23E-7	0.11	0.011
Arsenic (As)	5.37E-5	5.62E-6	2.75	0.29
Beryllium (Be)	4.28E-6	2.69E-7	0.22	0.014
Cadmium (Cd)	1.79E-7	2.84E-7	0.0092	0.015
Chromium (Cr)	2.04E-5	4.27E-6	1.05	0.22
Cobalt (Co)	9.91E-6	1.25E-6	0.51	0.064
Lead (Pb)	1.25E-5	2.55E-6	0.64	0.13
Manganese (Mn)	6.26E-5	5.46E-6	3.21	0.28
Nickel (Ni)	2.37E-5	5.12E-6	1.22	0.26
Selenium (Se)	4.98E-6	7.32E-6	0.26	0.38
TOTAL TPY	--	--	9.97	1.66

The permit will contain emission factor equations that are derived from emissions data and factors compiled by the Electric Power Research Institute (EPRI)¹.

E. Mercury

In addition to permitting the facility as a minor source of HAPs, in the final permit EPD is significantly lowering the allowable mercury emission rate. EPD is lowering the allowable mercury emission rate when burning PRB coal from 13×10^{-6} lb/MW-hr (150 pounds per year or 0.075 tons per year) to 7.64×10^{-6} lb/MW-hr (88 pounds per year or 0.044 tons per year), which is a reduction of 41% from the draft permit. This is consistent with the permit limit in the recently issued Plant Washington permit and is believed to be the lowest ever permitted rate for burning PRB coal. This emission rate is based on a 90% reduction in mercury from the average mercury concentration of PRB coal. The emission limit while firing CAPP coal remains the same as the draft permit at 6×10^{-6} lb/MW-hr (70 pounds per year or 0.035 tons per year).

¹ <http://my.epri.com/portal/server.pt?>

F. Other HAPs

Longleaf also identified some additional HAPs that were identified in public comments. These include cyanide, radionuclides, and phosphorus. Estimated emissions are listed below in Table 8. For the complete discussion and supporting documentation, please refer to letter dated December 22, 2009 from the facility.

Table 8 – Other HAPs

Substance	Emission Factor lb/MMBtu	Sub-bituminous (TPY)
Cyanide	1.30E-5	6.99E-01
Ra-226	3.2E-13	1.72E-8
Phosphorus	1.5E-6	8.08E-2
Total	--	0.78

G. Startup, Shutdown, and Malfunction

In letter dated December 22, 2009, Longleaf provided a detailed description of the types of startup, shutdown and malfunctions expected at the facility. Listed below in Table 9 are the expected emissions of HCl, HF, organics, and non-mercury metals during startup.

Table 9 – Startup Conditions

Category	Oil Firing (TPY)	Coal Firing (TPY)	Total Startup (TPY)	Total if at Full Load (TPY)
HCl	2.51E-3	1.04E-2	1.29E-2	9.10E-3
HF	<2.51E-3	7.33E-3	<9.84E-3	1.47E-2
Organics	8.22E-4	1.61E-3	2.44E-3	1.14E-2
Metals	1.64E-4	4.72E-4	6.37E-4	3.34E-3
TOTAL			<2.58E-2	3.86E-2

H. Summary

Table 10 summarizes the revised expected annual HAP emissions from the Longleaf facility.

Table 10 – Facility Total HAP Emissions

Category	PC Boilers (TPY)	Aux Boiler (TPY)	Aux Equipment (TPY)	Total (TPY)
HCl	5.14	0.039	--	5.18
HF	8.35	<0.039	--	<8.39
Organics	5.78	0.22	0.0128	6.013
Non-mercury metals	1.89	1.01	--	2.90
Mercury	0.044	--	--	0.044
Other HAPs	0.78	--	--	0.78
Overall Total	21.98	<1.31	0.013	23.30

Emissions factors and estimated emissions from the auxiliary equipment were approved as a part of the original PSD permit 4911-099-0033-P-01-0. Auxiliary equipment utilize AP-42 emissions factors as the means for estimating potential emissions from the specified equipment.

New and Revised Permit Conditions

Condition No. 1.13 has been deleted due to the facility no longer being subject to 40 CFR 63, Subpart B.

Condition No. 2.1 was modified to update the commencement of construction deadline date.

Condition No. 2.2 was modified removing the requirements of 40 CFR 63.43(g)(4).

Condition No. 2.15 was modified removing 40 CFR 63, Subpart B citations and the mercury emission limit was reduced.

Condition No. 2.16 was modified removing 40 CFR 63, Subpart B citations.

Condition No. 2.25 was added to include facility wide HAP limits to any single HAP emissions of 10 tpy and any combination of HAPs to less than 25 tpy.

Condition No. 4.1 was modified to include test methods for non-mercury metal HAPs, selenium, percent removal of HCl, HF, and selenium, and a new test method for the determination of organic HAPs.

Condition No. 4.2 was modified to include performance tests for non-mercury metals, organics, semi-volatile organics, hydrogen cyanide, and phosphorus, in addition to removing 40 CFR 63, Subpart B citations.

Condition No. 5.2 was modified adding a requirement that prior to the commencement of operation of the facility, the Division can require the addition of HCl or HF CEMS if they become available, and are reliable and accurate for continuously monitoring these pollutants at coal-fired power plants.

Condition No. 8.3 was modified to add the additional coal sampling required to determine HCl, HF, and non-mercury metal HAP emissions.

Condition No. 8.25 was modified adding exceedances requirements for any individual HAP emissions equal to or greater than 10 tpy and combined HAP emissions equal to or greater than 25 tpy and removing the excursion for surrogate emissions limits for HCl and HF.

New Condition No. 8.27 contains the recording keeping requirements and calculations for the facility to determine their monthly HAP emissions and the 12-month rolling HAP emissions for mercury, HCl, HF, non-mercury metals, and organics.

New Condition No. 8.28 requires the facility to submit within 180 days of initial startup a detailed example of the records required by Condition No. 8.27

New Condition No. 8.29 states how the facility will use the records in Condition No. 8.27 to calculate the monthly emissions of each HAP and the total monthly emissions of all HAPs.

New Condition No. 8.30 states how the facility will use the records in Condition No. 8.27 to calculate the 12-month rolling total emissions of each HAP and the 12-month rolling total emissions of all HAPs.

EPD Review

EPD has reviewed the additional information submitted by Longleaf in which the synthetic minor limits for HAPs is proposed. To ensure on going compliance with the 10/25 tpy limits, EPD has added additional testing requirements. These requirements add a periodic testing component to non-mercury metals, hydrogen fluoride, hydrochloric acid, and organics emissions. The periodic testing will occur once every 3 years for metals, yearly for fluoride and HCl, and every 5 years for organics, hydrogen cyanide and phosphorus. EPD believes that the addition of periodic testing will enable the facility to maintain more accurate emission factors for the pollutants as the facility operates and ensures that the emissions calculations are accurately representing the emissions coming out of the boiler stack.

Summary & Recommendations

EPD reviewed the additional information pertaining to Longleaf's submission of new emissions data and information that would allow the facility to apply for synthetic minor status in respect to hazardous air pollutants. The information provided above in the narrative is summarized from the letter dated December 22, 2009 from Longleaf Energy Associated, LLC to EPD. For the complete write up submitted by the facility please refer to the referenced letter. In light of the new information provided to EPD, EPD agrees with Longleaf's analysis that the facility can be synthetic minor source for HAPs. The amended and new permit conditions will ensure continuous compliance with the applicable limits and ensure that the facility remains below the major source thresholds for HAPs. In summary, it is recommended that Air Quality Permit No. 4911-099-0033-P-01-1 be issued for the Longleaf facility.